TOSHIBA
Leading Innovation

Selection Guide

MOSFETs

2017 January

Contents

1. Small Signal MOSFETs

Over 500mA Series MOSFET (Semi-Power type)

CST3 (SOT-883)	CST3B	VESM (SOT-723)	SSM (SOT-416)	UFM (SOT-323F)	SOT-23F (SOT-23)	S-Mini (SOT-346)	ES6 (SOT-563)	UF6 (SOT-363F)	TSOP6F	UDFN6B (SOT-1220)	WCSP6C
Bottom View	Bottom View									Bottom View	Bottom View
											
• 0.6x1.0 t0.4	• 0.8x1.2 t0.5	• 1.2x1.2 t0.55	• 1.6x1.6 t0.9	• 2.0x2.1 t0.75	• 2.9x2.4 t0.88	• 2.9x2.5 t1.4	• 1.6x1.6 t0.6	• 2.0x2.1 t0.75	• 2.9x2.8 t0.8	• 2.0x2.0 t0.8	• 1.5x1.0 t0.54

P-Channel Single MOSFET

Package	Part Number	V_{DSS} (V)	V_{GSS} (V)	I_D (A)	$R_{DS(ON)}$ max (mΩ)							Q_g typ. (nC)	C_{iss} typ. (pF)	Note
					V_{GS}= -1.2V	V_{GS}= -1.5V	V_{GS}= -1.8V	V_{GS}= -2.5V	V_{GS}= -4V	V_{GS}= -4.5V	V_{GS}= -10V			
CST3	SSM3J56ACT ☆	-20	±8	-1.4	4000	900	660	480		390		1.6	100	
CST3B	SSM3J46CTB	-20	±8	-2.0		250	178	133		103		4.7	290	
VESM	SSM3J56MFV	-20	±8	-0.8	4000	900	660	480		390		1.6	100	
WCSP6C	SSM6J771G	-20	±12	-5.0				47.5		35	34.7(@-8V) 31(@-8.5V)	9.8	870	
ES6	SSM6J216FE	-12	±8	-4.8		88.1	56	39.3		32		12.7	1040	
	SSM6J213FE	-20	±8	-2.6		250	178	133		103		4.7	290	
	SSM6J215FE	-20	±8	-3.4		154	104	79		59		10.4	630	
	SSM6J212FE	-20	±8	-4.0		94	65.4	49		40.7		14.1	970	
	SSM6J207FE	-30	±20	-1.4					491		251	-	137	
	SSM6J214FE	-30	±12	-3.6			149.6	77.6		57	50	7.9	560	
UFM	SSM3J132TU	-12	±6	-5.4	94	39	29	21		17		33	2700	
	SSM3J135TU	-20	±8	-3.0		260	180	132		103		4.6	270	
	SSM3J134TU	-20	±8	-3.2		240	168	123		93		4.7	290	
	SSM3J120TU ● #	-20	±8	-4.0		140	78	49	38			22.3	1484	⇒ SSM3J133TU
	SSM3J130TU	-20	±8	-4.4		63.2	41.1	31		25.8		24.8	1800	
	SSM3J133TU	-20	±8	-5.5		88.4	56	39.7		29.8		12.8	840	
	SSM3J112TU #	-30	±20	-1.1					790		390	-	86	
	SSM3J118TU #	-30	±20	-1.4					480		240	-	137	
	SSM3J117TU #	-30	±20	-2.0					225		117	-	280	
UF6	SSM6J50TU #	-20	±10	-2.5			205(@-2V)	100		64		-	800	
	SSM6J412TU	-20	±8	-4.0		99.6	67.8	51.4		42.7		12.8	840	
	SSM6J414TU	-20	±8	-6.0		54	36	26		22.5		23.1	1650	
	SSM6J402TU #	-30	±20	-2.0					225		117	5.3	280	
	SSM6J410TU #	-30	±20	-2.1					393		216	2.9	120	
	SSM6J401TU #	-30	±20	-2.5					145		73	16	730	
UDFN6B	SSM6J512NU ☆	-12	±10	-10.0			40.1	25.7	20.5(@-3.6V)	18.7	16.2(@-8V)	19.5	1400	
	SSM6J505NU	-12	±6	-12.0	61	30	21	16		12		37.6	2700	
	SSM6J511NU ☆	-12	±10	-14.0			19.2	13.5	11.5(@-3.6V)	10	9.1(@-8V)	47	3350	
	SSM6J503NU	-20	±8	-6.0		89.6	57.9	41.7		32.4		12.8	840	
	SSM6J502NU	-20	±8	-6.0		60.5	38.4	28.3		23.1		24.8	1800	
	SSM6J501NU	-20	±8	-10.0		43	26.5	19		15.3		29.9	2600	
	SSM6J509NU ★	-30	-25/+20	-4.0					77 (typ.)	66 (typ.)	42 (typ.)	TBD	600	
	SSM6J508NU ★	-30	-25/+20	-6.0					46 (typ.)	40 (typ.)	26 (typ.)	TBD	1083	
	SSM6J507NU ☆	-30	-25/+20	-10.0					32	28	20	13.6	1150	
	SSM6J356NU ★	-60	-20/+10	-2.0					400	360	300	8.3	330	
	SSM6J351NU ★	-60	-20/+10	-3.5						200	150	TBD	490	
SOT-23F	SSM3J338R ☆	-12	±10	-6.0			45.3	27.9	21.9(@-3.6V)	20.2	17.6(@-8V)	19.5	1400	
	SSM3J327R	-20	±8	-3.9		240	168	123		93		4.6	290	
	SSM3J331R	-20	±8	-4.0		150	100	75		55		10.4	630	
	SSM3J328R ●	-20	±8	-6.0		88.4	56	39.7		29.8		12.8	840	⇒ SSM3J355R
	SSM3J355R ☆	-20	±10	-6.0			52.3	38.8		30.1		16.6	1030	
	SSM3J358R ☆	-20	±10	-6.0			49.3	32.8	27.7(@-3.6V)	25.3	22.1(@-8V)	38.5	1331	
	SSM3J340R ☆	-30	-25/+20	-4.0					86	73	45	6.2	492	
	SSM3J334R	-30	±20	-4.0					136	105	71	5.9	280	
	SSM3J332R	-30	±12	-6.0			144	72		50	42	8.2	560	
	SSM3J356R ☆ #	-60	-20/+10	-2.0					400	360	300	8.3	330	
	SSM3J351R ☆ #	-60	-20/+10	-3.5					184	164	134	15.1	660	
S-Mini	SSM3J352F ☆	-20	±12	-2.0			443	199		136	110	5.1	210	
	SSM3J325F	-20	±8	-2.0		311	231	179		150		4.6	270	
	SSM3J353F ☆	-30	-25/20	-2.0					274	232	150	3.4	159	
TSOP6F	SSM6J801R ☆	-20	-8/6	-6.0		88.4	56	39.7		32.5		12.8	840	
	SSM6J808R ★	-40	-20/+10	-7.0					TBD	TBD	TBD	TBD	TBD	

☆ New products, ★ Under development (specification might be changed without notice), ● Recommend Another New Product
 # Available conformable product to AEC-Q101

N-Channel Single MOSFET

Package	Part Number	V_{DSS} (V)	V_{GSS} (V)	I_D (A)	$R_{DS(ON)}$ max (mΩ)							Q_g typ. (nC)	C_{iss} typ. (pF)	Note
					V_{GS}= 1.2V	V_{GS}= 1.5V	V_{GS}= 1.8V	V_{GS}= 2.5V	V_{GS}= 4V	V_{GS}= 4.5V	V_{GS}= 10V			
CST3	SSM3K56CT ●	20	±8	0.8		840	480	300		235		1.0	55	⇒ SSM3K56ACT
	SSM3K56ACT ☆	20	±8	1.4		840	480	300		235		1.0	55	
CST3B	SSM3K59CTB ☆	40	±12	2.0			420	268	238(@3.6V) 231(@4.2V)	228	215(@8V)	1.1	130	
VESM	SSM3K36MFV #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	
	SSM3K56MFV #	20	±8	0.8		840	480	300		235		1.0	55	
WCSP6C	SSM6K781G	12	±8	7.0		124	47.4	23.2		18		5.4	600	
SSM	SSM3K43FS ● #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	⇒ SSM3K56FS
	SSM3K36FS ● #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	⇒ SSM3K56FS
	SSM3K56FS ☆ #	20	±8	0.8		840	480	300		235		1.0	55	
ES6	SSM6K204FE	20	±10	2.0		307	214	164	126			3.4	195	
	SSM6K211FE	20	±10	3.2		118	82	59		47		10.8	510	
	SSM6K24FE	30	±12	0.5				180		145		-	245	
	SSM6K208FE	30	±12	1.9			296	177	133			1.9	123	
	SSM6K202FE	30	±12	2.3			145	101	85			-	270	
	SSM6K217FE ☆	40	±12	1.8			400	248	218(@3.6V) 211(@4.2V)	208	195(@8V)	1.1	130	
UFM	SSM3K36TU #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	
	SSM3K62TU ☆ #	20	±8	0.8	432	139	89	68		57		2.0	177	
	SSM3K122TU #	20	±10	2.0		304	211	161	123			3.4	195	
	SSM3K121TU #	20	±10	3.2		140	93	63	48			5.9	400	
	SSM3K123TU #	20	±10	4.2		66	43	32	28			13.6	1010	
	SSM3K127TU #	30	±12	2.0			286	167	123			1.5	123	
	SSM3K116TU #	30	±12	2.2				135		100		-	245	
	SSM3K119TU ● #	30	±12	2.5			134	90	74			-	270	⇒ SSM3K123TU
	SSM3K131TU #	30	±20	6.0						41.5	27.6	10.1	450	
	SSM3H137TU ☆ #	34	±20	2.0					295	280	240	3.0	119	Built-in Active Clamp Zener
	SSM3K2615TU ☆ #	60	±20	2.0				580(@3.3V)	440		300	6.0	150	
	SSM3K341TU ★ #	60	±20	6.0					69	51	36	9.3	550	
	SSM3K361TU ★ #	100	±20	3.5						92	69	3.2	430	
UF6	SSM6K405TU	20	±10	2.0		307	214	164	126			3.4	195	
	SSM6K404TU #	20	±10	3.0		147	100	70	55			5.9	400	
	SSM6K403TU #	20	±10	4.2		66	43	32	28			16.8	1050	
	SSM6K406TU #	30	±20	4.4						38.5	25	12.4	490	
	SSM6K407TU #	60	±20	2.0					440		300	6.0	150	
UDFN6B	SSM6K504NU #	30	±20	9.0						26	19.5	4.8	620	
	SSM6K513NU ☆ #	30	±20	15.0						12	8.9	7.5	1130	
	SSM6K514NU ☆ #	40	±20	12.0						17.3	11.6	7.5	1110	
	SSM6K341NU ★	60	±20	6.0					69	51	36	9.3	550	
	SSM6K361NU ★	100	±20	3.5						92	69	3.2	430	
SOT-23F	SSM3K344R ★	20	±8	4.0		327	164	100		72		TBD	153	
	SSM3K345R ★	20	±8	4.7			47	35	31			TBD	113	
	SSM3K336R ☆ #	30	±20	3.0						140	95	1.7	126	
	SSM3K329R #	30	±12	3.5			289	170	126			1.5	123	
	SSM3K324R ●	30	±12	4.0			109	72		56		2.2	200	⇒ SSM3K344R
	SSM3K335R #	30	±20	6.0						56	38	2.7	340	
	SSM3K333R #	30	±20	6.0						42	28	3.4	436	
	SSM3K347R ☆ #	38	±20	2.0					480	410	340	2.5	86	Built-in Active Clamp Zener
	SSM3K337R #	38	±20	2.0					200	176	150	3.0	120	Built-in Active Clamp Zener
	SSM3K339R	40	±12	2.0			390	238	208(@3.6V) 201(@4.2V)	198	185(@8V)	1.1	130	
	SSM3K2615R ☆ #	60	±20	2.0				580(@3.3V)	440		300	6.0	150	
	SSM3K318R ☆ #	60	±20	2.5						145	107	7.0	235	
	SSM3K341R ☆ #	60	±20	6.0					69	51	36	9.3	550	
	SSM3K361R ☆ #	100	±20	3.5						92	69	3.2	430	
TSOP6F	SSM6K810R ★	100	±20	3.5						92	69	3.2	430	

☆ New products, ★ Under development (specification might be changed without notice), ● Recommend Another New Product
 # Available conformable product to AEC-Q101

Over 500mA Series MOSFET (Semi-Power type)

ESV (SOT-553)	UFV (SOT-353F)	ES6 (SOT-563)	UF6 (SOT-363F)	US6 (SOT-363)	UDFN6 (SOT-1118)
					Bottom View 
• 1.6x1.6 t0.55	• 2.0x2.1 t0.75	• 1.6x1.6 t0.55	• 2.0x2.1 t0.75	• 2.0x2.1 t1.1	• 2.0x2.0 t0.8

Dual MOSFET

Package	Polarity	Part Number	V_{DSS} (V)	V_{GSS} (V)	I_D (A)	$R_{DS(ON)}$ max (mΩ) $\lvert V_{GS}\rvert$= 1.2V	$\lvert V_{GS}\rvert$= 1.5V	$\lvert V_{GS}\rvert$= 1.8V	$\lvert V_{GS}\rvert$= 2.5V	$\lvert V_{GS}\rvert$= 4V	$\lvert V_{GS}\rvert$= 4.5V	$\lvert V_{GS}\rvert$= 10V	Q_g typ. (nC)	C_{iss} typ. (pF)	Note
ES6	Pch x 2	SSM6P41FE	-20	±8	-0.72		1040	670	440		300		1.76	110	
	Nch x 2	SSM6N36FE #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.2	46	
		SSM6N56FE ☆ #	20	±8	0.8		840	480	300		235		1.0	55	
	Nch + Pch	SSM6L14FE	20	±10	0.8		600	450	330		240		2.0	90	
			-20	±8	-0.72		1040	670	440		300		1.76	110	
		SSM6L36FE #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	
			-20	±8	-0.33		3600	2700	1600(@-2.8V)		1310		1.20	43	
UDFN6	Pch x 2	SSM6P47NU	-20	±8	-4.0		242	170	125		95		4.6	290	
		SSM6P49NU	-20	±12	-4.0			157	76		56	45	6.74	480	
	Nch x 2	SSM6N61NU ☆ #	20	±8	4.0		108	74	45		33		3.6	410	
		SSM6N55NU #	30	±20	4.0						64	46	2.5	280	
		SSM6N57NU	30	±12	4.0			82	53		39.1		3.2	310	
		SSM6N58NU	30	±12	4.0			180	117		84		1.8	129	
	Nch + Pch	SSM6L61NU ☆	20	±8	4.0		108	74	45		33		3.6	410	
			-20	±12	-4.0			157	76		56	45	6.74	480	
UF6	Pch x 2	SSM6P54TU #	-20	±8	-1.2		555	350	228				7.7	331	
		SSM6P39TU #	-20	±8	-1.5			430	294	213			6.4	250	
		SSM6P40TU #	-30	±20	-1.4					403		226	2.9	120	
	Nch x 2	SSM6N36TU #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	
		SSM6N62TU ☆ #	20	±8	0.8	456	173	120	98		85		2.0	177	
		SSM6N39TU #	20	±10	1.6		247	190	139	119			7.5	260	
		SSM6N24TU #	30	±12	0.5				180		145		-	245	
		SSM6N40TU #	30	±20	1.6					182		122	5.1	180	
	Nch + Pch	SSM6L36TU #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	
			-20	±8	-0.33		3600	2700	1600(@-2.8V)		1310		1.2	43	
		SSM6L39TU #	20	±10	1.6		247	190	139	119			7.5	260	
			-20	±8	-1.5			430	294	213			6.4	250	
		SSM6L12TU #	30	±12	0.5				180		145		-	245	
			-20	±12	-0.5				430	260			-	218	
		SSM6L40TU #	30	±20	1.6					182		122	5.1	180	
			-30	±20	-1.4					403		226	2.9	120	
US6	Nch x 2	SSM6N43FU #	20	±10	0.5		1520	1140	850		660	630(@5V)	1.23	46	

☆ **New products, ★ Under development (specification might be changed without notice)**
 # Available conformable product to AEC-Q101

MOSFET with Diode

Package	Polarity	Part Number	MOSFET V_{DSS} (V)	V_{GSS} (V)	I_D (A)	$R_{DS(ON)}$ max (mΩ) $\lvert V_{GS}\rvert$= 1.5V	$\lvert V_{GS}\rvert$= 1.8V	$\lvert V_{GS}\rvert$= 2.5V	$\lvert V_{GS}\rvert$= 4V	$\lvert V_{GS}\rvert$= 4.5V	$\lvert V_{GS}\rvert$= 10V	C_{iss} typ. (pF)	Diode V_R (V)	I_D (A)	V_F max (V)	@I_F (A)	Note
ESV	Pch + SBD	SSM5G06FE	-20	±10	-0.1	45000		12000	8000			11	12	0.1	0.5	0.1	
	Nch + SBD	SSM5H06FE	20	±10	0.1	15000		4000	3000			9.3	12	0.1	0.5	0.1	
UFV	Pch + SBD	SSM5G09TU	-12	±8	-1.5			200	130			550	12	0.5	0.43	0.5	
		SSM5G02TU	-12	±12	-1.0			240	160			310	12	0.5	0.43	0.5	
		SSM5G11TU	-30	±20	-1.4				403		226	120	30**	0.7	0.44	0.7	
	Nch + SBD	SSM5H08TU	20	±12	1.5			220	160			125	20	0.5	0.43(typ.)	0.5	
		SSM5H16TU	30	±12	1.9		296	177	133			123	30	0.8	0.55	0.8	
		SSM5H11TU	30	±20	1.6				182		122	180	30	0.7	0.44	0.7	
		SSM5H01TU	30	±20	1.4				450		200	106	20	0.5	0.43(typ.)	0.5	
	Nch + Switching diode	SSM5H90ATU	20	±10	2.4			89	65			200	80	0.1	1.2	0.1	
UDFN6	Pch + SBD	SSM6G18NU	-20	±8	-2.0	261	185	143		112		270	30	1.0	0.58	1.0	
	Nch + SBD	SSM6H19NU	40	±12	2.0		390	238	208(@3.6V) 201(@4.2V)	198	185(@8V)	130	40	0.5	0.57	0.5	

** V_{RRM}

Less than 500mA Series MOSFET (Standard type)

CST3C	CST3 (SOT-883)	VESM (SOT-723)	SSM (SOT-416)	UFM (SOT-323F)	USM (SOT-323)	SOT23 (SOT-23)	S-Mini (SOT-346)
Bottom View 	Bottom View 						
• 0.6x0.8 t0.4	• 0.6x1.0 t0.4	• 1.2x1.2 t0.55	• 1.6x1.6 t0.9	• 2.0x2.1 t0.75	• 2.0x2.1 t1.1	• 2.9x2.4 t1.1	• 2.9x2.5 t1.4

P-Channel Single MOSFET

Package	Part Number	V_{DSS} (V)	V_{GSS} (V)	I_D (mA)	$R_{DS(ON)}$ max (Ω)							Note
					V_{GS}=-1.2V	V_{GS}=-1.5V	V_{GS}=-1.8V	V_{GS}=-2.5V	V_{GS}=-4V	V_{GS}=-4.5V	V_{GS}=-10V	
CST3C	SSM3J35CTC ☆ ✻	-20	±10	-250	20	4	2.9	2.1		1.4		
CST3	SSM3J35CT	-20	±10	-100	44	22		11	8			
	SSM3J16CT ●	-20	±10	-100		45		12	8			⇒SSM3J35CT
	SSM3J15CT	-30	±20	-100				32	12			
VESM	SSM3J16FV ● #	-20	±10	-100		45		12	8			⇒SSM3J56MFV
	SSM3J35MFV ● #	-20	±10	-100	44	22		11	8			⇒SSM3J56MFV
	SSM3J35AMFV ★	-20	±10	-250	20			2.1		1.4		
	SSM3J36MFV ● #	-20	±8	-330		3.6	2.7	1.6(@-2.8V)		1.31		⇒SSM3J56MFV
	SSM3J15FV #	-30	±20	-100				32	12			
SSM	SSM3J35FS #	-20	±10	-100	44	22		11	8			
	SSM3J35AFS ★	-20	±10	-250	20			2.1		1.4		
	SSM3J36FS #	-20	±8	-330		3.6	2.7	1.6(@-2.8V)		1.31		
	SSM3J16FS ● #	-20	±10	-100		45		12	8			⇒SSM3J35FS
	SSM3J15FS #	-30	±20	-100				32	12			
UFM	SSM3J36TU #	-20	±8	-330		3.6	2.7	1.6(@-2.8V)		1.31		
USM	SSM3J16FU #	-20	±10	-100		45		12	8			
	SSM3J15FU #	-30	±20	-100				32	12			
	SSM3J09FU #	-30	±20	-200				6(@-3.3V)	4.2		2.7	
S-Mini	SSM3J15F #	-30	±20	-100				32	12			
	2SJ305	-30	±20	-200				4				
	SSM3J168F ☆ #	-60	-20/+10	-400					2	1.9	1.55	
	2SJ168 ●	-60	±20	-200							2	⇒SSM3J168F

☆ New products, ★ Under development (specification might be changed without notice), ✻ 2kV ESD(HBM) level
● Recommend Another New Product, # Available conformable product to AEC-Q101

N-Channel Single MOSFET

Package	Part Number	V_{DSS} (V)	V_{GSS} (V)	I_D (mA)	$R_{DS(ON)}$ max (Ω)							Note
					V_{GS}=1.2V	V_{GS}=1.5V	V_{GS}=1.8V	V_{GS}=2.5V	V_{GS}=4V	V_{GS}=4.5V	V_{GS}=5V	V_{GS}=10V	
CST3C	SSM3K16CTC ☆	20	±10	200		5.6	4	3		2.2			
	SSM3K35CTC ☆	20	±10	250	9	3.1	2.4	1.6		1.1			
	SSM3K15ACTC ☆	30	±20	100				6	3.6				
	SSM3K72CTC ☆	60	±20	150				5.7(typ.)		4.7	4.4	3.9	
CST3	SSM3K16CT ●	20	±10	100		15		4	3				⇒SSM3K37CT
	SSM3K35CT	20	±10	180	20	8		4	3				
	SSM3K37CT	20	±10	200		5.6	4.05	3.02		2.2			
	SSM3K15ACT	30	±20	100				6	3.6				
	SSM3K15CT ●	30	±20	100				7	4				⇒SSM3K15ACT
	SSM3K72KCT ☆ ✻	60	±20	400						1.75	1.65	1.5	
VESM	SSM3K16FV ● #	20	±10	100		15		4	3				⇒SSM3K37MFV
	SSM3K35MFV #	20	±10	180	20	8		4	3				
	SSM3K37MFV	20	±10	250		5.6	4.05	3.02		2.2			
	SSM3K35AMFV ☆	20	±10	250	9	3.1	2.4	1.6		1.1			
	SSM3K15AMFV	30	±20	100				6	3.6				
	SSM3K44MFV #	30	±20	100				7	4				
SSM	SSM3K16FS ● #	20	±10	100		15		4	3				⇒SSM3K37FS
	SSM3K35FS #	20	±10	180	20	8		4	3				
	SSM3K37FS	20	±10	200		5.6	4.05	3.02		2.2			
	SSM3K35AFS ☆	20	±10	250	9	3.1	2.4	1.6		1.1			
	SSM3K15AFS	30	±20	100				6	3.6				
	SSM3K15FS ● #	30	±20	100				7	4				⇒SSM3K15AFS
	SSM3K44FS #	30	±20	100				7	4				
	SSM3K72CFS ☆	60	±20	170						4.7	4.4	3.9	
	SSM3K72KFS ☆ ✻ #	60	±20	300						1.75	1.65	1.5	
USM	SSM3K16FU #	20	±10	100		15		4	3				
	SSM3K48FU ✻	30	±20	100				5.4	3.2				
	SSM3K15AFU	30	±20	100				6	3.6				
	SSM3K15FU ● #	30	±20	100				7	4				⇒SSM3K15AFU
	SSM3K09FU #	30	±20	400				1.7(@3.3V)	1.2			0.7	
	SSM3K17FU #	50	±7	100				40	20				
	SSM3K7002CFU ☆	60	±20	170						4.7	4.4	3.9	
	SSM3K7002KFU ☆ ✻ #	60	±20	400						1.75	1.65	1.5	
SOT23	T2N7002AK ☆	60	±20	200						4.7	4.4	3.9	
	T2N7002BK ☆ ✻	60	±20	400						1.75	1.65	1.5	
S-Mini	SSM3K15F #	30	±20	100				7	4				
	2SK2009	30	±20	200				2					
	SSM3K7002KF ☆ ✻ #	60	±20	400						1.75	1.65	1.5	

☆ New products, ★ Under development (specification might be changed without notice), ✻ 2kV ESD(HBM) level
● Recommend Another New Product, # Available conformable product to AEC-Q101

Less than 500mA Series MOSFET (Standard type)

ESV (SOT-553)	ES6 (SOT-563)	USV (SOT-353)	UF6 (SOT-363F)	US6 (SOT-363)
				
• 1.6x1.6 t0.6	• 1.6x1.6 t0.6	• 2.0x2.1 t1.1	• 2.0x2.1 t0.75	• 2.0x2.1 t1.1

Dual MOSFET

Package	Polarity	Part Number	V_{DSS} (V)	V_{GSS} (V)	I_D (mA)	$R_{DS(ON)}$ max (Ω)								Note
						$\|V_{GS}\|$= 1.2V	$\|V_{GS}\|$= 1.5V	$\|V_{GS}\|$= 1.8V	$\|V_{GS}\|$= 2.5V	$\|V_{GS}\|$= 4V	$\|V_{GS}\|$= 4.5V	$\|V_{GS}\|$= 5V	$\|V_{GS}\|$= 10V	
ESV	Pch x 2	SSM5P16FE	-20	±10	-100		45		12	8				
		SSM5P15FE	-30	±20	-100				32	12				
	Nch x 2	SSM5N16FE	20	±10	100		15		4	3				
		SSM5N15FE	30	±20	100				7	4				
ES6	Pch x 2	SSM6P35FE #	-20	±10	-100	44	22		11	8				
		SSM6P35AFE ★	-20	±10	-250	20			2.1		1.4			
		SSM6P16FE ● #	-20	±10	-100		45		12	8				⇒SSM6P35FE
		SSM6P36FE #	-20	±8	-330		3.6	2.7	1.6(@-2.8V)		1.31			
		SSM6P15FE #	-30	±20	-100				32	12				
	Nch x 2	SSM6N16FE ● #	20	±10	100		15		4	3				⇒SSM6N37FE
		SSM6N35FE #	20	±10	180	20	8		4	3				
		SSM6N35AFE ☆	20	±10	250	9	3.1	2.4	1.6		1.1			
		SSM6N37FE	20	±10	250		5.6	4.05	3.02		2.2			
		SSM6N44FE #	30	±20	100				7	4				
		SSM6N15AFE	30	±20	100				6	3.6				
		SSM6N7002BFE	60	±20	200						3.3	2.6	2.1	
	Pch+Nch	SSM6L35FE #	-20	±10	-100	44	22		11	8				
			20	±10	180	20	8		4	3				
		SSM6L16FE ● #	-20	±10	-100		45		12	8				⇒SSM6L35FE
			20	±10	100		15		4	3				
		SSM6L36FE #	-20	±10	-330		3.6	2.7	1.6(@-2.8V)		1.31			
			20	±10	500		1.52	1.14	0.85		0.66		0.63(@5V)	
USV	Pch x 2	SSM5P15FU	-30	±20	-100				32	12				
	Nch x 2	SSM5N16FU	20	±10	100		15		4	3				
		SSM5N15FU	30	±20	100				7	4				
UF6	Pch x 2	SSM6P36TU #	-20	±8	-330		3.6	2.7	1.6(@-2.8V)		1.31			
	Pch+Nch	SSM6L36TU #	-20	±8	-330		3.6	2.7	1.6(@-2.8V)		1.31			
			20	±10	500		1.52	1.14	0.85		0.66		0.63(@5V)	
US6	Pch x 2	SSM6P16FU ● #	-20	±10	-100		45		12	8				⇒SSM6P35FU
		SSM6P35FU #	-20	±10	-100	44	22		11	8				
		SSM6P35AFU ★	-20	±10	-250	20			2.1		1.4			
		SSM6P15FU #	-30	±20	-100				32	12				
	Nch x 2	SSM6N16FU ●	20	±10	100		15		4	3				⇒SSM6N37FU
		SSM6N35FU #	20	±10	180	20	8		4	3				
		SSM6N35AFU ☆	20	±10	250	9	3.1	2.4	1.6		1.1			
		SSM6N37FU	20	±10	250		5.6	4.05	3.02		2.2			
		SSM6N15FU ● #	30	±20	100				7	4				⇒SSM6N15AFU
		SSM6N44FU #	30	±20	100				7	4				
		SSM6N48FU ✻	30	±20	100				5.4	3.2				
		SSM6N15AFU	30	±20	100				6	3.6				
		SSM6N09FU	30	±20	400				1.7(@3.3V)	1.2			0.7	
		SSM6N17FU #	50	±7	100				40	20				
		SSM6N7002CFU ☆	60	±20	170						4.7	4.4	3.9	
		SSM6N7002KFU ☆ ✻ #	60	±20	300						1.75	1.65	1.5	
	Pch+Nch	SSM6L35FU #	-20	±10	-100	44	22		11	8				
			20	±10	180	20	8		4	3				
		SSM6L09FU	-30	±20	-200				6(@-3.3V)	4.2			2.7	
			30	±20	400				1.7(@3.3V)	1.2			0.7	

☆ **New products, ✻ 2kV ESD(HBM) level , ● Recommend Another New Product**
 # Available conformable product to AEC-Q101

Part Naming Conventions

Small-Signal MOSFET SSM Series

Ex) SSM 3 K 329 R
① ② ③ ④ ⑤

① Small-Signal MOSFET
② Pin count
③ Polarity and internal configuration
- K : N-channel, single
- J : P-channel, single
- N : N-channel, dual
- P : P-channel, dual
- L : N-channeland P-channel (dual)
- E : N-channel and P-channel (pre-wired as a load switch)
- H : N-channel and SBD
- G : P-channel and SBD
- Q : PNP and P-channel

④ Serial number of the products
⑤ Package

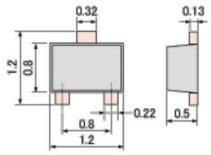
3-pin	F : S-Mini	5-pin	F : SMV
	FU : USM		FU : USV
	FS : SSM		FE : ESV
	FV : VESM		TU : UFV
	TU : UFM	6-pin	G : WCSP6C
	CT : CST3		R : TSOP6F
	CTB : CST3B		FU : US6
	CTC : CST3C		FE : ES6
	R : SOT-23F		TU : UF6
			NU : UDFN6/UDFN6B

Small Signal MOSFET package

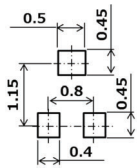
Dimensional Out Line

VESM (SOT-723)

Package dimension unit : mm



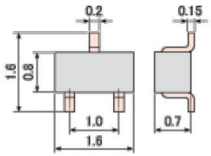
Land pattern example unit : mm



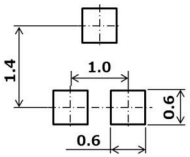
MOQ	Tape width	Weight
8,000 p/reel	8 mm	1.5 mg

SSM (SOT-416)

Package dimension unit : mm



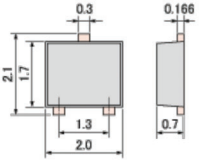
Land pattern example unit : mm



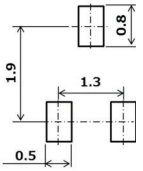
MOQ	Tape width	Weight
3,000 p/reel	8 mm	2.4 mg

UFM (SOT-323F)

Package dimension unit : mm



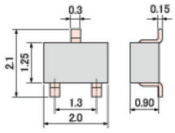
Land pattern example unit : mm



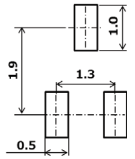
MOQ	Tape width	Weight
3,000 p/reel	8 mm	6.6 mg

USM (SOT-323)

Package dimension unit : mm



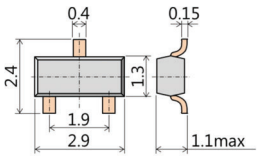
Land pattern example unit : mm



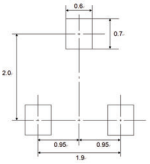
MOQ	Tape width	Weight
3,000 p/reel	8 mm	6 mg

SOT23

Package dimension unit : mm



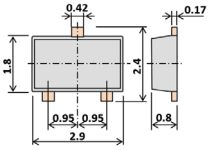
Land pattern example unit : mm



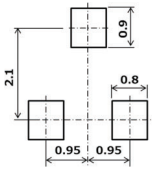
MOQ	Tape width	Weight
3,000 p/reel	8 mm	9 mg

SOT-23F

Package dimension unit : mm



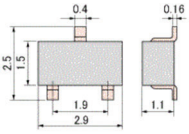
Land pattern example unit : mm



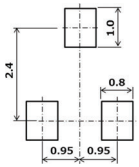
MOQ	Tape width	Weight
3,000 p/reel	8 mm	11 mg

S-Mini (SOT-346)

Package dimension unit : mm



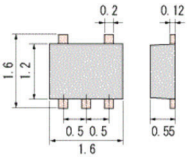
Land pattern example unit : mm



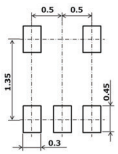
MOQ	Tape width	Weight
3,000 p/reel	8 mm	12 mg

ESV (SOT-553)

Package dimension unit : mm



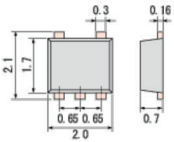
Land pattern example unit : mm



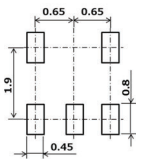
MOQ *	Tape width	Weight
-	8 mm	3 mg

UFV (SOT-353F)

Package dimension unit : mm



Land pattern example unit : mm

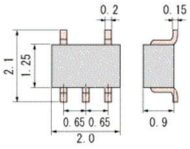


MOQ	Tape width	Weight
3,000 p/reel	8 mm	7 mg

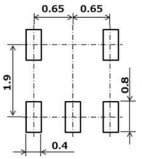
* TPL3 8,000p/reel, TE85L 4,000p/reel

USV (SOT-353)

Package dimension unit : mm



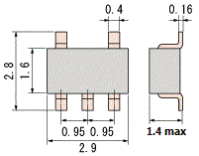
Land pattern example unit : mm



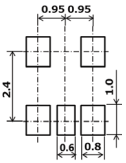
MOQ	Tape width	Weight
3,000 p/reel	8 mm	6 mg

SMV (SOT-25)

Package dimension unit : mm



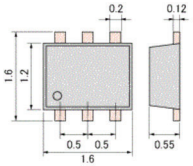
Land pattern example unit : mm



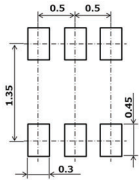
MOQ	Tape width	Weight
3,000 p/reel	8 mm	14 mg

ES6 (SOT-563)

Package dimension unit : mm



Land pattern example unit : mm

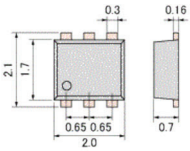


MOQ *	Tape width	Weight
-	8 mm	3 mg

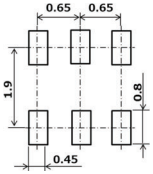
* TPL3 8,000p/reel, TE85L 4,000p/reel

UF6 (SOT-363F)

Package dimension unit : mm



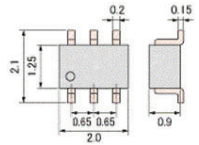
Land pattern example unit : mm



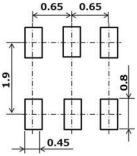
MOQ	Tape width	Weight
3,000 p/reel	8 mm	7 mg

US6 (SOT-363)

Package dimension unit : mm



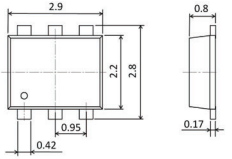
Land pattern example unit : mm



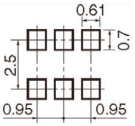
MOQ	Tape width	Weight
3,000 p/reel	8 mm	6.8 mg

TSOP6F

Package dimension unit : mm



Land pattern example unit : mm

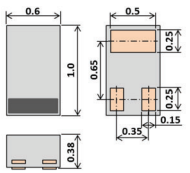


MOQ	Tape width	Weight
3,000 p/reel	8 mm	16 mg

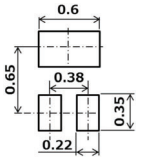
Leadless packages

CST3 (SOT-883)

Package dimension unit : mm



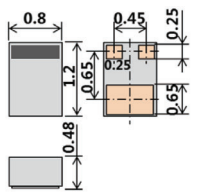
Land pattern example unit : mm



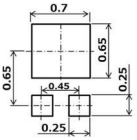
MOQ	Tape width	Weight
10,000 p/reel	8 mm	0.75 mg

CST3B

Package dimension unit : mm



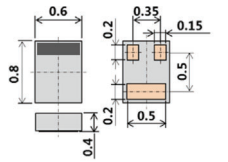
Land pattern example unit : mm



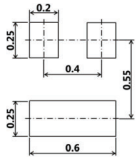
MOQ	Tape width	Weight
10,000 p/reel	8 mm	1.5 mg

CST3C

Package dimension unit : mm



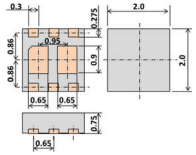
Land pattern example unit : mm



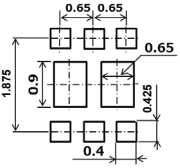
MOQ	Tape width	Weight
10,000 p/reel	8 mm	0.55 mg

UDFN6 (SOT-1118)

Package dimension unit : mm



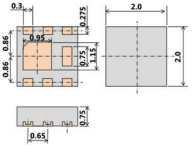
Land pattern example unit : mm



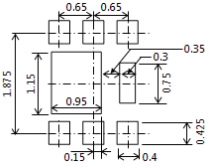
MOQ	Tape width	Weight
3,000 p/reel	8 mm	8.5 mg

UDFN6B (SOT-1220)

Package dimension unit : mm



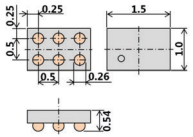
Land pattern example unit : mm



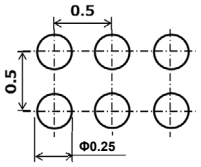
MOQ	Tape width	Weight
3,000 p/reel	8 mm	8.5 mg

WCSP6C

Package dimension unit : mm



Land pattern example unit : mm



MOQ	Tape width	Weight
3,000 p/reel	8 mm	1.4 mg

2. Power MOSFETs

Low-Voltage / Mid-High Voltage MOSFET Series

VS-6(TSOP-6)(2.9x2.8)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)					Q_g typ.(nC)		C_{iss} typ.	Marking	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|= 10V	|V_{GS}|= 4.5V	|V_{GS}|= 2.5V	|V_{GS}|= 1.8V	|V_{GS}|= 1.5V	|V_{GS}|= 10V	|V_{GS}|= 5V	(pF)		
N-ch Note(1)	TPC6008-H	30	±20	5.9	60	74	-	-	-	4.8	2.6	232	S2H	U-MOSVI-H
	TPC6009-H	40	±20	5.3	81	98	-	-	-	4.7	2.6	225	S2J	U-MOSVI-H
	TPC6010-H	60	±20	6.1	59	63	-	-	-	12	6.5	640	S2K	U-MOSVI-H
N-ch	TPC6012	20	±12	6	-	20	38	-	-	-	9	630	S2M	U-MOSIV
	TPC6067	30	±20	6	23	29	-	-	-	8	-	610	S2N	U-MOSVII
P-ch	TPC6130	-20	±12	-2.8	-	106	164	-	-	-	5.1	360	S3P	U-MOSVI
	TPC6113	-20	±12	-5	-	55	85	-	-	-	10	690	S3N	U-MOSVI
	TPC6111 #	-20	±8	-5.5	-	40	57	80	150	-	10	700	S3L	U-MOSV
	TPC6110	-30	-25/+20	-4.5	56	77	-	-	-	14	-	510	S3K	U-MOSVI

: With protection Zener diode between gate and source
Note(1) : High-speed type

VS-8(2.9x1.9)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)					Q_g typ.(nC)		C_{iss} typ.	Marking	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|= 10V	|V_{GS}|= 4.5V	|V_{GS}|= 2.5V	|V_{GS}|= 2V	|V_{GS}|= 1.8V	|V_{GS}|= 10V	|V_{GS}|= 5V	(pF)		
N-ch	TPCF8003	20	±12	7	-	18	34	-	-	-	9.5	500	F2C	U-MOSIV
	TPCF8004	30	±20	7	24	30	-	-	-	9	-	610	F2D	U-MOSVII
P-ch	TPCF8105	-20	±12	-6	-	30	41	-	100	-	17	1100	F3E	U-MOSVI
	TPCF8108	-20	±12	-7	-	26	37	-	95	-	19	1320	F3H	U-MOSVI
	TPCF8107	-30	-25/+20	-6	28	38	-	-	-	22	-	970	F3G	U-MOSVI
P-ch x 2	TPCF8305	-20	±12	-4	-	58	83	160	265	-	9.2	680	F5E	U-MOSVI
	TPCF8306	-30	-25/+20	-3.2	72	120	-	-	-	10	-	390	F5F	U-MOSVI

PS-8(2.9x2.8)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)							Q_g typ.(nC)		C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|= 10V	|V_{GS}|= 6V	|V_{GS}|= 4.5V	|V_{GS}|= 2.5V	|V_{GS}|= 2V	|V_{GS}|= 1.8V	|V_{GS}|= 1.5V	|V_{GS}|= 10V	|V_{GS}|= 5V	(pF)	
N-ch Note(2)	TPCP8007-H	60	±20	5	57	-	64	-	-	-	-	11	5.8	640	U-MOSVI-H
N-ch x 2 Note(2)	TPCP8205-H	30	±20	6.5	26	-	29	-	-	-	-	13.8	-	830	U-MOSVI-H
N-ch	TPCP8011 #	40	±20	5	31.8	51.2	-	-	-	-	-	11.8	-	505	U-MOSIV
	TPCP8010 #	40	±20	6	23.8	38.4	-	-	-	-	-	13.1	-	600	U-MOSIV
	TPCP8009 #	40	±20	10	11.8	19.5	-	-	-	-	-	25.1	-	1250	U-MOSIV
	TPCP8013 #	60	±20	4	51.8	77.9	-	-	-	-	-	12	-	515	U-MOSIV
	TPCP8012 #	60	±20	8	20.2	29.1	-	-	-	-	-	26.6	-	1160	U-MOSIV
P-ch	TPCP8105 #	-20	±12	-7.2	-	-	17	23	45	60	-	-	28	2280	U-MOSVI
	TPCP8106	-30	-25/+20	-5.2	33	-	44	-	-	-	-	19	-	870	U-MOSVI
	TPCP8109 #	-40	-20/+10	-4.5	52.3	76.8	-	-	-	-	-	18	-	810	U-MOSVI
	TPCP8107 #	-40	-20/+10	-8	18	26.8	-	-	-	-	-	44.6	-	2160	U-MOSVI
	TPCP8111 #	-60	-20/+10	-3	117	158.4	-	-	-	-	-	17	-	760	U-MOSVI
	TPCP8110 #	-60	-20/+10	-5	39.5	53.2	-	-	-	-	-	45	-	2075	U-MOSVI
N-ch x 2	TPCP8205-H	30	±20	6.5	26	-	29	-	-	-	-	13.8	-	830	U-MOSVI-H
	TPCP8206	20	±12	6	-	-	24	35	-	-	-	-	5.8	630	U-MOSVII
	TPCP8204	30	±20	4.2	50	-	77	-	-	-	-	4.6	-	190	U-MOSIV
	TPCP8207 #	40	±20	5	36.3	62.8	-	-	-	-	-	11.8	-	505	U-MOSIV
P-ch x 2	TPCP8303 #	-20	±8	-3.8	-	-	46	60	-	90	144	-	10	640	U-MOSV
	TPCP8306	-20	±12	-4	-	-	58	83	160	265	-	-	9.2	680	U-MOSVI
	TPCP8305	-20	±12	-6	-	-	30	42	-	-	-	-	21.5	1500	U-MOSVI
N-ch + P-ch	TPCP8404	-30	±20	-4	50	-	80	-	-	-	-	13	-	510	U-MOSV
		30	±20	4	50	-	80	-	-	-	-	4.6	-	190	U-MOSIV
	TPCP8405	-30	±20	-6	31.3	-	42	-	-	-	-	24.1	-	1075	U-MOSVI
		30	±20	6.5	26	-	29	-	-	-	-	13.8	-	830	U-MOSVI-H
	TPCP8406	-40	±20	-5	43.2	-	53.4	-	-	-	-	24.2	-	1105	U-MOSVI
		40	±20	6	32	-	36	-	-	-	-	13.7	-	850	U-MOSVI-H
	TPCP8407 #	-40	-20/+10	-4	56.8	82.2	-	-	-	-	-	18	-	810	U-MOSVI
	#	40	±20	5	36.3	62.8	-	-	-	-	-	11.8	-	505	U-MOSIV

: With protection Zener diode between gate and source
Note(2) : High-speed type

TSON Advance(3.3x3.3)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)								Q_g typ.(nC)		C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|= 10V	|V_{GS}|= 6.5V	|V_{GS}|= 6V	|V_{GS}|= 4.5V	|V_{GS}|= 4V	|V_{GS}|= 2.5V	|V_{GS}|= 2V	|V_{GS}|= 1.8V	|V_{GS}|= 10V	|V_{GS}|= 4.5V	(pF)	
N-ch Note(3)	TPCC8067-H	30	±20	9	25	-	-	33	-	-	-	-	9.5	4.7(@5V)	690	U-MOSVII-H
	TPCC8066-H	30	±20	11	15	-	-	19	-	-	-	-	15	7.6(@5V)	1100	U-MOSVII-H
	TPCC8065-H	30	±20	13	11.4	-	-	14.5	-	-	-	-	20	9.9(@5V)	1350	U-MOSVII-H
	TPCC8068-H	30	±20	13	11.6	-	-	16	-	-	-	-	14	7.2(@5V)	980	U-MOSVII-H
	TPN11003NL	30	±20	31SL	11	-	-	16	-	-	-	-	7.5	3.3	510	U-MOSVIII-H
	TPCC8064-H	30	±20	19	8.2	-	-	10.6	-	-	-	-	23	11(@5V)	1600	U-MOSVII-H
	TPCC8062-H	30	±20	27	5.6	-	-	7.1	-	-	-	-	34	17(@5V)	2400	U-MOSVII-H
	TPN8R903NL	30	±20	37SL	8.9	-	-	12.7	-	-	-	-	9.8	4.4	630	U-MOSVIII-H
	TPN6R003NL	30	±20	56SL	6	-	-	8.3	-	-	-	-	17	8.2	1050	U-MOSVIII-H
	TPN5R203PL	30	±20	76SL	5.2	-	-	6.4	-	-	-	-	23	12	1520	U-MOSIX-H
	TPN4R303NL	30	±20	63SL	4.3	-	-	6.3	-	-	-	-	14.8	6.8	1110	U-MOSVIII-H
	TPN2R903PL	30	±20	122SL	2.9	-	-	4.1	-	-	-	-	26	12	1780	U-MOSIX-H
	TPN2R703NL	30	±20	90SL	2.7	-	-	4.1	-	-	-	-	21	9.5	1600	U-MOSVIII-H
	TPN1R603PL	30	±20	188SL	1.6	-	-	2.5	-	-	-	-	41	20	2970	U-MOSIX-H
	TPN7R504PL	40	±20	68SL	7.5	-	-	10	-	-	-	-	24	12	1570	U-MOSIX-H
	TPN3R704PL	40	±20	92SL	3.7	-	-	6	-	-	-	-	27	13.3	1910	U-MOSIX-H
	TPN2R304PL	40	±20	100SL	2.3	-	-	4	-	-	-	-	41	19.4	2750	U-MOSIX-H
	TPN2R805PL	45	±20	139SL	2.8	-	-	5	-	-	-	-	39	19	2450	U-MOSIX-H
	TPN22006NH	60	±20	21SL	22	64	-	-	-	-	-	-	12	-	710	U-MOSVIII-H
	TPN14006NH	60	±20	33SL	14	41	-	-	-	-	-	-	15	-	1000	U-MOSVIII-H
	TPN11006PL	60	±20	54SL	11.4	-	-	18.1	-	-	-	-	17	9.0	1250	U-MOSIX-H
	TPN11006NL	60	±20	37SL	11.4	-	-	17	-	-	-	-	23	11.2	1500	U-MOSVIII-H
	TPN7R506NH	60	±20	53SL	7.5	16	-	-	-	-	-	-	22	-	1410	U-MOSVIII-H
	TPN7R006PL	60	±20	76SL	7	-	-	13.5	-	-	-	-	20	9.8	1440	U-MOSIX-H
	TPN4R806PL	60	±20	105SL	4.8	-	-	9.1	-	-	-	-	29	14	2130	U-MOSIX-H
	TPN30008NH	80	±20	22SL	30	-	-	-	-	-	-	-	11	-	710	U-MOSVIII-H
	TPN13008NH	80	±20	40SL	13.3	-	-	-	-	-	-	-	18	-	1230	U-MOSVIII-H
	TPN3300ANH	100	±20	21SL	33	-	-	-	-	-	-	-	11	-	680	U-MOSVIII-H
	TPN1600ANH	100	±20	36SL	16	-	-	-	-	-	-	-	19	-	1230	U-MOSVIII-H
	TPN5900CNH	150	±20	18SL	59	-	-	-	-	-	-	-	7	-	460	U-MOSVIII-H
	TPN1110ENH	200	±20	13SL	114	-	-	-	-	-	-	-	7	-	460	U-MOSVIII-H
	TPN2010FNH	250	±20	9.9SL	198	-	-	-	-	-	-	-	7	-	460	U-MOSVIII-H
N-ch	TPCC8093	20	±12	21	-	-	-	5.8	-	9.5	-	-	-	16(@5V)	1860	U-MOSVII
	TPCC8074	30	±20	20	6.3	-	-	8.5	-	-	-	-	25	-	1800	U-MOSVII
	TPN6R303NC	30	±20	43SL	6.3	-	-	8.4	-	-	-	-	24	-	1370	U-MOSVIII
	TPCC8073	30	±20	27	4.5	-	-	5.9	-	-	-	-	37	-	2600	U-MOSVII
	TPN4R203NC	30	±20	53SL	4.2	-	-	6.4	-	-	-	-	24	-	1370	U-MOSVIII
	TPN2R503NC	30	±20	85SL	2.5	-	-	4.1	-	-	-	-	40	-	2230	U-MOSVIII
	TPN2R203NC	30	±20	100SL	2.2	-	-	3.6	-	-	-	-	34	-	2230	U-MOSVIII
	TPCC8084 #	33	±20	21	6.7	-	-	9	-	-	-	-	27	-	1900	U-MOSVII
	TPCC8076 #	33	±20	27	4.6	-	-	6.2	-	-	-	-	34	-	2500	U-MOSVII
	TPCC8069 #	40	±20	30	8.1	-	14.1	-	-	-	-	-	34	-	1640	U-MOSIV
	TPCC8070 #	60	±20	30	13.5	-	21.3	-	-	-	-	-	34	-	1600	U-MOSIV
P-ch	TPCC8136	-20	±12	-9.4	-	-	-	16	-	22	37	60	-	36(@5V)	2350	U-MOSVI
	TPCC8137	-20	±12	-13	-	-	-	10	-	16	30	52	-	43(@5V)	2990	U-MOSVI
	TPCC8138	-20	±12	-18	-	-	-	7.5	-	11	21	42	-	63(@5V)	4165	U-MOSVI
	TPN4R712MD	-20	±12	-36	-	-	-	4.7	-	8.1	-	-	-	65(@5V)	4300	U-MOSVI
	TPCC8131	-30	-25/+20	-10	17.6	-	-	23	-	-	-	-	40	-	1700	U-MOSVI
	TPCC8103	-30	±20	-18	12	-	-	-	25	-	-	-	38	-	1600	U-MOSV
	TPCC8104	-30	-25/+20	-20	8.8	-	-	12.4	-	-	-	-	58	-	2260	U-MOSVI
	TPCC8105	-30	-25/+20	-23	7.8	-	-	10.4	-	-	-	-	76	-	3240	U-MOSVI
	TPCC8106 #	-40	-20/+10	-30	12.3	-	18.9	-	-	-	-	-	66	-	3100	U-MOSVI
	TPCC8107 #	-60	-20/+10	-25	30.5	-	42.9	-	-	-	-	-	63	-	2930	U-MOSVI

: With protection Zener diode between gate and source
Note(3) : High-speed type, Low-rg
SL : $I_{D\,(DC)}$ (Silicon Limit)

SOP-8(SO-8)(5x6)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.(nC)		C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|=10V	|V_{GS}|=4.5V	|V_{GS}|=10V	|V_{GS}|=4.5V	(pF)	
N-ch Note(4)	TPC8067-H	30	±20	9	25	33	9.5	4.7(@5V)	690	U-MOSVII-H
	TPC8066-H	30	±20	11	16	19	15	7.6(@5V)	1100	U-MOSVII-H
	TPC8065-H	30	±20	13	11.6	14.7	20	9.9(@5V)	1350	U-MOSVII-H
	TP89R103NL	30	±20	15[SL]	9.1	12.9	9.8	4.4	630	U-MOSVIII-H
	TPC8064-H	30	±20	16	8.4	10.8	23	11(@5V)	1600	U-MOSVII-H
	TPC8063-H	30	±20	17	7	8.9	27	13(@5V)	1900	U-MOSVII-H
	TP86R203NL	30	±20	19[SL]	6.2	8.5	17	8.2	1050	U-MOSVIII-H
	TPC8062-H	30	±20	18	5.8	7.3	34	17(@5V)	2400	U-MOSVII-H
	TPC8059-H	30	±20	18	4	5	41	21(@5V)	2900	U-MOSVII-H
	TPC8058-H	30	±20	18	3.2	4	51	26(@5V)	3600	U-MOSVII-H
	TPC8057-H	30	±20	18	2.8	3.4	61	31(@5V)	4300	U-MOSVII-H
	TPC8056-H	30	±20	18	2.4	2.9	74	38(@5V)	5200	U-MOSVII-H
	TPC8055-H	30	±20	18	2.1	2.5	91	47(@5V)	6400	U-MOSVII-H
	TPC8089-H	40	±20	7.2	32	36	14	7.2(@5V)	850	U-MOSVI-H
	TPC8052-H	40	±20	12	11.5	13.3	25	13(@5V)	1620	U-MOSVI-H
	TPC8047-H	40	±20	16	7.6	8.8	43	23(@5V)	2590	U-MOSVI-H
	TPC8046-H	40	±20	18	5.7	6.6	57	31(@5V)	3545	U-MOSVI-H
	TPC8045-H	40	±20	18	3.9	4.4	90	48(@5V)	5800	U-MOSVI-H
	TPC8053-H	60	±20	9	22.5	24.2	25	13(@5V)	1620	U-MOSVI-H
	TPC8050-H	60	±20	11	14.5	15.6	41	21(@5V)	2590	U-MOSVI-H
	TPC8049-H	60	±20	13	10.7	11.5	56	29(@5V)	3545	U-MOSVI-H
	TPC8048-H	60	±20	16	6.9	7.4	87	46(@5V)	5800	U-MOSVI-H
	TPC8051-H	80	±20	13	9.7	10.1	85	43(@5V)	5800	U-MOSVI-H
N-ch x 2 Note(4)	TPC8224-H	30	±20	8	26	34	9.5	4.7(@5V)	690	U-MOSVII-H
	TPC8223-H	30	±20	9	17	21	17	8.3(@5V)	1190	U-MOSVII-H
	TPC8227-H	40	±20	5.1	33	40	10	5.3(@5V)	640	U-MOSVI-H
	TPC8228-H	60	±20	3.8	57	64	11	5.7(@5V)	640	U-MOSVI-H
	TPC8229-H	80	±20	3.2	80	87	11	5.4(@5V)	640	U-MOSVI-H
N-ch	TPC8092	30	±20	15	9	11.1	25	-	1800	U-MOSVII
	TPC8074	30	±20	17	6.5	8.7	25	-	1800	U-MOSVII
	TPC8086 #	30	±20	17	6.4	8.5	26	-	1900	U-MOSVII
	TPC8073	30	±20	18	4.7	6.1	37	-	2600	U-MOSVII
	TPC8085 #	30	±20	18	4.7	6.1	37	-	2600	U-MOSVII
	TPC8082	30	±20	18	4	5	41	-	2900	U-MOSVII
	TPC8081	30	±20	18	3.2	4	51	-	3600	U-MOSVII
	TPC8080	30	±20	18	2.8	3.4	61	-	4300	U-MOSVII
	TPC8088	30	±20	18	2.4	2.9	74	-	5200	U-MOSVII
	TPC8087	30	±20	18	2.1	2.5	91	-	6400	U-MOSVII
	TPC8084 #	33	±20	17	6.9	9.2	27	-	1900	U-MOSVII
	TPC8076 #	33	±20	18	4.9	6.5	34	-	2500	U-MOSVII
	TPC8075	33	±20	18	2.6	3.3	70	-	5200	U-MOSVII
	TPC8078	33	±20	18	2.3	2.8	90	-	6400	U-MOSVII
P-ch	TPC8129	-30	-25/+20	-9	22	28	39	-	1650	U-MOSVI
	TPC8125	-30	-25/+20	-10	13	17	64	-	2580	U-MOSVI
	TPC8126	-30	-25/+20	-11	10	14	56	-	2400	U-MOSVI
	TPC8123	-30	-25/+20	-11	9	12.5	68	-	2940	U-MOSVI
	TPC8127	-30	-25/+20	-13	6.5	8.9	92	-	3800	U-MOSVI
	TPC8128	-30	-25/+20	-16	5	6.9	115	-	4800	U-MOSVI
	TPC8120	-30	-25/+20	-18	3.2	4.2	180	-	7420	U-MOSVI
	TPC8134	-40	-25/+20	-5	52	66	20	-	890	U-MOSVI
	TPC8132	-40	-25/+20	-7	25	33	34	-	1580	U-MOSVI
	TPC8133	-40	-25/+20	-9	15	18	64	-	2900	U-MOSVI
	TPC8124	-40	-25/+20	-12	8	10	104	-	4750	U-MOSVI
N-ch + P-ch	TPC8407	-30	±20	-7.4	23	29	39	-	1650	U-MOSVI
		30	±20	9	17	21	17	-	1190	U-MOSVII-H
	TPC8408	-40	±20	-5.3	43	53	24	-	1105	U-MOSVI
		40	±20	6.1	32	36	14	-	850	U-MOSVI-H

: With protection Zener diode between gate and source
Note(4) : High-speed type, Low-rg
SL : $I_{D\ (DC)}$ (Silicon Limit)

SOP Advance(5x6)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)					Q_g typ.(nC)		C_{rss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|= 10V	|V_{GS}|= 6.5V	|V_{GS}|= 6V	|V_{GS}|= 4.5V	|V_{GS}|= 2.5V	|V_{GS}|= 10V	|V_{GS}|= 4.5V	(pF)	
N-ch Note(5)	TPCA8068-H	30	±20	15	11.6	-	-	16	-	14	7.2(@5V)	980	U-MOSVII-H
	TPCA8065-H	30	±20	16	11.4	-	-	14.5	-	20	9.9(@5V)	1350	U-MOSVII-H
	TPH11003NL	30	±20	32SL	11	-	-	16	-	7.5	3.3	510	U-MOSVIII-H
	TPH8R903NL	30	±20	38SL	8.9	-	-	12.7	-	9.8	4.4	630	U-MOSVIII-H
	TPCA8064-H	30	±20	20	8.2	-	-	10.6	-	23	11(@5V)	1600	U-MOSVII-H
	TPCA8063-H	30	±20	22	6.8	-	-	8.7	-	27	13(@5V)	1900	U-MOSVII-H
	TPCA8091-H	30	±20	35	6	-	-	8.4	-	20	9	1410	U-MOSVII-H
	TPH6R003NL	30	±20	57SL	6	-	-	8.3	-	17	8.2	1050	U-MOSVIII-H
	TPCA8062-H	30	±20	28	5.6	-	-	7.1	-	34	17(@5V)	2400	U-MOSVII-H
	TPH4R003NL	30	±20	68SL	4	-	-	6.2	-	14.8	6.8	1110	U-MOSVIII-H
	TPCA8059-H	30	±20	32	3.8	-	-	4.8	-	41	21(@5V)	2900	U-MOSVII-H
	TPH3R203NL	30	±20	84SL	3.2	-	-	4.7	-	21	9.5	1600	U-MOSVIII-H
	TPH3R003PL	30	±20	134SL	3	-	-	4.2	-	50	24	2940	U-MOSIX-H
	TPCA8058-H	30	±20	38	3	-	-	3.8	-	51	26(@5V)	3600	U-MOSVII-H
	TPH2R903PL	30	±20	124SL	2.9	-	-	4.1	-	26	12	1780	U-MOSIX-H
	TPCA8057-H	30	±20	42	2.6	-	-	3.2	-	61	31(@5V)	4300	U-MOSVII-H
	TPCA8056-H	30	±20	48	2.2	-	-	2.7	-	74	38(@5V)	5200	U-MOSVII-H
	TPH2R003PL	30	±20	180SL	2	-	-	2.6	-	86	41	4930	U-MOSIX-H
	TPCA8055-H	30	±20	56	1.9	-	-	2.3	-	91	47(@5V)	6400	U-MOSVII-H
	TPH1R403NL	30	±20	150SL	1.4	-	-	2.1	-	46	20	3400	U-MOSVIII-H
	TPHR9203PL	30	±20	280SL	0.92	-	-	1.29	-	81	38	5800	U-MOSIX-H
	TPHR9003NL	30	±20	220SL	0.9	-	-	1.4	-	74	32	5300	U-MOSVIII-H
	TPHR6503PL	30	±20	393SL	0.65	-	-	0.89	-	110	52	7700	U-MOSIX-H
	TPCA8052-H	40	±20	20	11.3	-	-	13.1	-	25	13(@5V)	1620	U-MOSVI-H
	TPCA8047-H	40	±20	32	7.3	-	-	8.5	-	43	23(@5V)	2590	U-MOSVI-H
	TPH7R204PL	40	±20	72SL	7.2	-	-	9.7	-	24	12	1570	U-MOSIX-H
	TPH6R004PL	40	±20	87SL	6	-	-	8.4	-	30	15	2100	U-MOSIX-H
	TPCA8046-H	40	±20	38	5.4	-	-	6.3	-	55	29(@5V)	3545	U-MOSVI-H
	TPH4R304NC # ★ ◆	40	±20	40	4.3	-	-	8.8	-	35	-	2450	U-MOSVIII-H
	TPH3R704PL	40	±20	92	3.7	-	-	6	-	27	13.3	1910	U-MOSIX-H
	TPH3R704PC	40	±20	118SL	3.7	-	-	5.8	-	47	23	2780	U-MOSIX-H
	TPCA8045-H	40	±20	46	3.6	-	-	4.1	-	90	47(@5V)	5800	U-MOSVI-H
	TPH2R104PL	40	±20	180SL	2.1	-	-	3.1	-	78	37	4790	U-MOSIX-H
	TPH1R204PL	40	±20	246SL	1.24	-	-	2.1	-	74	34	5500	U-MOSIX-H
	TPH1R104PB ★ ◆	40	±20	120	1.14	-	1.96	-	-	55	-	4560	U-MOSIX-H
	TPHR8504PL	40	±20	340SL	0.85	-	-	1.4	-	103	49	7370	U-MOSIX-H
	TPHR7904PB ★ ◆	40	±20	150	0.79	-	1.3	-	-	85	-	8340	U-MOSIX-H
	TPH2R805PL	45	±20	150SL	2.8	-	-	3.9	-	73	37	3980	U-MOSIX-H
	TPH1R405PL	45	±20	232SL	1.4	-	-	2.3	-	74	36	4830	U-MOSIX-H
	TPH1R005PL	45	±20	280SL	1.04	-	-	1.7	-	122	59	7700	U-MOSIX-H
	TPCA8053-H	60	±20	15	22.3	-	-	24	-	25	13(@5V)	1620	U-MOSVI-H
	TPH14006NH	60	±20	34SL	14	33	-	-	-	16	-	1000	U-MOSVIII-H
	TPH11006NL	60	±20	40SL	11.4	-	-	17	-	23	11.2	1500	U-MOSVIII-H
	TPCA8049-H	60	±20	28	10.4	-	-	11.2	-	55	29(@5V)	3545	U-MOSVI-H
	TPH9R506PL	60	±20	68SL	9.5	-	-	15	-	22	11	1470	U-MOSIX-H
	TPH7R506NH	60	±20	55SL	7.5	19	-	-	-	31	-	1785	U-MOSVIII-H
	TPH7R006PL	60	±20	79SL	7	-	-	13.5	-	22	11	1440	U-MOSIX-H
	TPCA8048-H	60	±20	35	6.6	-	-	7.1	-	90	46(@5V)	5800	U-MOSVI-H
	TPH5R906NH	60	±20	71SL	5.9	14	-	-	-	38	-	2340	U-MOSVIII-H

: With protection Zener diode between gate and source
★ : Under Development (Specifications of products under development may change without prior notice)
◆ : Wettable Flanks(Adapting this technology part of the head of the pin can be also covered with solder.)
Note(5) : High-speed / Low-capacitance type
SL : $I_{D\ (DC)}$ (Silicon Limit)

SOP Advance(5x6)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)					Q_g typ.(nC)		C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	$\|V_{GS}\|$= 10V	$\|V_{GS}\|$= 6.5V	$\|V_{GS}\|$= 6V	$\|V_{GS}\|$= 4.5V	$\|V_{GS}\|$= 2.5V	$\|V_{GS}\|$= 10V	$\|V_{GS}\|$= 4.5V	(pF)	
N-ch Note(5)	TPH4R606NH	60	±20	85[SL]	4.6	11	-	-	-	49	-	3050	U-MOSVIII-H
	TPH3R506PL	60	±20	135[SL]	3.5	-	-	6.7	-	55	27	3400	U-MOSIX-H
	TPH2R506PL	60	±20	160[SL]	2.5	-	-	4.4	-	60	32	4180	U-MOSIX-H
	TPH2R306NH	60	±20	130[SL]	2.3	4.7	-	-	-	72	-	4700	U-MOSVIII-H
	TPH1R306PL	60	±20	260[SL]	1.34	-	-	2.3	-	91	44	6250	U-MOSIX-H
	TPH2R608NH	75	±20	168[SL]	2.6	-	-	-	-	72	-	4600	U-MOSVIII-H
	TPH12008NH	80	±20	44[SL]	12.3	-	-	-	-	22	-	1490	U-MOSVIII-H
	TPCA8051-H	80	±20	28	9.4	-	-	9.8	-	91	47(@5V)	5800	U-MOSVI-H
	TPH8R008NH	80	±20	63[SL]	8	-	-	-	-	35	-	2300	U-MOSVIII-H
	TPH4R008NH	80	±20	100[SL]	4	-	-	-	-	59	-	4100	U-MOSVIII-H
	TPH1400ANH	100	±20	42[SL]	13.6	-	-	-	-	22	-	1440	U-MOSVIII-H
	TPH8R80ANH	100	±20	59[SL]	8.8	-	-	-	-	33	-	2180	U-MOSVIII-H
	TPH6R30ANL #	100	±20	66[SL]	6.3	-	-	10.3	-	55	27	3300	U-MOSVIII-H
	TPH4R50ANH	100	±20	93[SL]	4.5	-	-	-	-	58	-	4000	U-MOSVIII-H
	TPH4R10ANL	100	±20	92[SL]	4.1	-	-	6.6	-	75	37	4850	U-MOSVIII-H
	TPH5900CNH	150	±20	18[SL]	59	-	-	-	-	7.0	-	460	U-MOSVIII-H
	TPH3300CNH	150	±20	29[SL]	33	-	-	-	-	10.6	-	810	U-MOSVIII-H
	TPH1500CNH	150	±20	50[SL]	15.4	-	-	-	-	22	-	1700	U-MOSVIII-H
	TPH1110ENH	200	±20	13[SL]	114	-	-	-	-	7.0	-	460	U-MOSVIII-H
	TPH6400ENH	200	±20	21[SL]	64	-	-	-	-	11.2	-	810	U-MOSVIII-H
	TPH2900ENH	200	±20	36[SL]	29	-	-	-	-	22	-	1700	U-MOSVIII-H
	TPH2010FNH	250	±20	10[SL]	198	-	-	-	-	7.0	-	460	U-MOSVIII-H
	TPH1110FNH	250	±20	15[SL]	112	-	-	-	-	11	-	810	U-MOSVIII-H
	TPH5200FNH	250	±20	27[SL]	52	-	-	-	-	22	-	1700	U-MOSVIII-H
N-ch	TPCA8082	30	±20	32	3.8	-	-	4.8	-	41	-	2900	U-MOSVII
	TPCA8081	30	±20	38	3	-	-	3.8	-	51	-	3600	U-MOSVII
	TPCA8080	30	±20	42	2.6	-	-	3.2	-	61	-	4300	U-MOSVII
	TPCA8088	30	±20	48	2.2	-	-	2.7	-	74	-	5200	U-MOSVII
	TPCA8087	30	±20	56	1.9	-	-	2.3	-	91	-	6400	U-MOSVII
	TPCA8075	33	±20	48	2.4	-	-	3.1	-	70	-	5200	U-MOSVII
	TPCA8078	33	±20	54	2.1	-	-	2.6	-	90	-	6400	U-MOSVII
	TPCA8085 #	40	±20	40	5.7	-	10.4	-	-	41	-	2050	U-MOSIV
	TPCA8083 #	40	±20	60	3.3	-	5.6	-	-	83	-	4540	U-MOSIV
	TPCA8086 #	60	±20	35	11.2	-	16.6	-	-	41	-	1990	U-MOSIV
	TPCA8084 #	60	±20	60	5.3	-	8	-	-	83	-	4480	U-MOSIV
P-ch	TPH1R712MD	-20	±12	-60	-	-	-	1.7	2.7	182	182(@5V)	10900	U-MOSVI
	TPCA8131	-30	-25/+20	-13	17	-	-	22	-	40	-	1700	U-MOSVI
	TPCA8109	-30	-25/+20	-24	9	-	-	13	-	56	-	2400	U-MOSVI
	TPCA8128	-30	-25/+20	-34	4.8	-	-	6.7	-	115	-	4800	U-MOSVI
	TPCA8120	-30	-25/+20	-45	3	-	-	4	-	190	-	7420	U-MOSVI
	TPCA8121	-30	-20/+10	-45	3	-	-	4	-	190	-	7420	U-MOSVI
	TPCA8124 #	-40	-20/+10	-35	10.5	-	14.6	-	-	77	-	3570	U-MOSVI
	TPCA8122 #	-40	-20/+10	-60	5	-	7.2	-	-	152	-	7340	U-MOSVI
	TPCA8125 #	-60	-20/+10	-25	25.5	-	34.4	-	-	78	-	3650	U-MOSVI
	TPCA8123 #	-60	-20/+10	-50	11.1	-	14.9	-	-	163	-	7000	U-MOSVI
N-ch + SBD Note(5)	TPCA8A11-H	30	±20	35	3.6	-	-	4.6	-	46	23(@5V)	3200	U-MOSVII-H SBD
	TPCA8A10-H	30	±20	40	3	-	-	3.8	-	57	29(@5V)	4000	U-MOSVII-H SBD
	TPCA8A09-H	30	±20	51	2.3	-	-	2.8	-	82	41(@5V)	5900	U-MOSVII-H SBD

: With protection Zener diode between gate and source
Note(5) : High-speed / Low-capacitance type
SL : $I_{D\ (DC)}$ (Silicon Limit)

DSOP Advance(5x6)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.(nC)		C_{iss} typ.	Marking	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	$\|V_{GS}\|$=10V	$\|V_{GS}\|$=4.5V	$\|V_{GS}\|$=10V	$\|V_{GS}\|$=4.5V	(pF)		
N-ch Note(6)	TPWR8503NL	30	±20	300[SL]	0.85	1.3	74	32	5300	K31	U-MOSVIII-H
	TPWR6003PL	30	±20	412[SL]	0.6	0.84	110	52	7700	K32	U-MOSIX-H
	TPWR8004PL	40	±20	340[SL]	0.8	1.35	103	49	7370	K41	U-MOSIX-H
	TPW1R005PL	45	±20	300[SL]	0.99	1.65	122	59	7700	K51	U-MOSIX-H
	TPW1R306PL	60	±20	260[SL]	1.29	2.3	91	44	6250	K61	U-MOSIX-H
	TPW2R508NH	75	±20	170[SL]	2.5	-	72	-	4600	K82	U-MOSVIII-H
	TPW4R008NH	80	±20	116	4	-	59	-	4100	K81	U-MOSVIII-H
	TPW4R50ANH	100	±20	92	4.5	-	58	-	4000	KA1	U-MOSVIII-H
	TPW1500CNH	150	±20	50[SL]	15.4	-	22	-	1700	KC1	U-MOSVIII-H
	TPW2900ENH	200	±20	36[SL]	29	-	22	-	1700	KE1	U-MOSVIII-H
	TPW5200FNH	250	±20	27[SL]	52	-	22	-	1700	KF1	U-MOSVIII-H

Note(6) : Low-rg
SL : $I_{D\ (DC)}$ (Silicon Limit)

DPAK(TO-252)/New PW-Mold

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.(nC)		C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	$\|V_{GS}\|$=10V	$\|V_{GS}\|$=4.5V	$\|V_{GS}\|$=10V	$\|V_{GS}\|$=4.5V	(pF)	
N-ch Note(7)	TK40P03M1	30	±20	40	10.8	14.4	17.5	9.4(@5V)	1150	U-MOSVI-H
	TK45P03M1	30	±20	45	9.7	12	25	13(@5V)	1500	U-MOSVI-H
	TK50P03M1	30	±20	50	7.5	9.8	25.3	13.3(@5V)	1700	U-MOSVI-H
	TK20P04M1	40	±20	20	29	34	15	7.6(@5V)	985	U-MOSVI-H
	TK40P04M1	40	±20	40	11	13.4	29	15(@5V)	1920	U-MOSVI-H
	TK50P04M1	40	±20	50	8.7	10.2	38	20(@5V)	2600	U-MOSVI-H
P-ch	TJ15P04M3	-40	±20	-15	36	48	26	-	1100	U-MOSVI

Note(7) : High-speed / Low-capacitance type

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)		Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	V_{GS}=4.5V	(nC)	(pF)	
N-ch	TK8P25DA	250	±20	7.5	0.5	-	16	550	π-MOSVII
	TK13P25D	250	±20	13	0.25	-	25	1100	π-MOSVII
	TK3P50D	500	±30	3	3	-	7	280	π-MOSVII
	TK4P50D	500	±30	4	2	-	9	380	π-MOSVII
	TK5P50D	500	±30	5	1.5	-	11	490	π-MOSVII
	TK7P50D	500	±30	7	1.22	-	12	600	π-MOSVII
	TK5P53D	525	±30	5	1.5	-	11	540	π-MOSVII
	TK6P53D	525	±30	6	1.3	-	12	600	π-MOSVII
	TK4P55DA	550	±30	3.5	2.45	-	9	380	π-MOSVII
	TK4P55D	550	±30	4	1.88	-	11	490	π-MOSVII
	TK2P60D	600	±30	2	4.3	-	7	280	π-MOSVII
	TK4P60DA	600	±30	3.5	2.2	-	11	490	π-MOSVII
	TK4P60DB	600	±30	3.7	2	-	11	540	π-MOSVII
	TK4P60D	600	±30	4	1.7	-	12	600	π-MOSVII
N-ch	TK10P50W	500	±30	9.7	0.43	-	20	700	DTMOSIV
	TK12P50W	500	±30	11.5	0.34	-	25	890	DTMOSIV
	TK5P60W5 &	600	±30	4.5	0.99	-	11.5	370	DTMOSIV (HSD)
	TK5P60W	600	±30	5.4	0.9	-	10.5	380	DTMOSIV
	TK6P60W	600	±30	6.2	0.82	-	12	390	DTMOSIV
	TK7P60W5 &	600	±30	7	0.67	-	16	490	DTMOSIV (HSD)
	TK7P60W	600	±30	7	0.6	-	15	490	DTMOSIV
	TK560P60Y	600	±30	7	0.56	-	14.5	380	DTMOSV
	TK8P60W5 &	600	±30	8	0.56	-	22	590	DTMOSIV (HSD)
	TK8P60W	600	±30	8	0.5	-	18.5	570	DTMOSIV
	TK10P60W	600	±30	9.7	0.43	-	20	700	DTMOSIV
	TK380P60Y	600	±30	9.7	0.38	-	20	590	DTMOSV
	TK12P60W	600	±30	11.5	0.34	-	25	890	DTMOSIV
	TK290P60Y	600	±30	11.5	0.29	-	25	730	DTMOSV
	TK5P65W	650	±30	5.2	1.22	-	10.5	380	DTMOSIV
	TK6P65W	650	±30	5.8	1.05	-	11	390	DTMOSIV
	TK7P65W	650	±30	6.8	0.8	-	15	490	DTMOSIV
	TK8P65W	650	±30	7.8	0.67	-	16	570	DTMOSIV
	TK560P65Y	650	±30	7	0.56	-	14.5	380	DTMOSV
	TK9P65W	650	±30	9.3	0.56	-	20	700	DTMOSIV
	TK11P65W	650	±30	11.1	0.44	-	25	890	DTMOSIV
	TK380P65Y	650	±30	9.7	0.38	-	20	590	DTMOSV
	TK290P65Y	650	±30	11.5	0.29	-	25	730	DTMOSV
N-ch	TK3P80E	800	±30	3	4.9	-	12	500	π-MOSVIII
	TK2P90E	900	±30	2	5.9	-	12	500	π-MOSVIII

& : High Speed Diode type

DPAK+

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)			Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	$\|V_{GS}\|$=10V	$\|V_{GS}\|$=6.0V	$\|V_{GS}\|$=4.5V	(nC)	(pF)	
N-ch	TK15S04N1L #	40	±20	15	17.8	-	37	10	610	U-MOSVIII-H
	TK65S04N1L #	40	±20	65	4.3	-	7.8	39	2550	U-MOSVIII-H
	TK100S04N1L	40	±20	100	2.3	-	4.5	76	5490	U-MOSVIII-H
	TK1R4S04PB	40	±20	120	1.35	1.9	-	103	5500	U-MOSIX-H
	TK25S06N1L #	60	±20	25	18.5	-	36.8	15	855	U-MOSVIII-H
	TK40S06N1L #	60	±20	40	10.5	-	18	26	1650	U-MOSVIII-H
	TK90S06N1L	60	±20	90	3.3	-	5.2	81	5400	U-MOSVIII-H
	TK7S10N1Z #	100	±20	7	48	-	-	7.1	470	U-MOSVIII-H
	TK11S10N1L #	100	±20	11	28	-	50	15	850	U-MOSVIII-H
	TK33S10N1L #	100	±20	33	9.7	-	16.2	33	2250	U-MOSVIII-H
	TK33S10N1Z #	100	±20	33	9.7	-	-	28	2050	U-MOSVIII-H
	TK33S10N1H #	100	±20	33	9.7	-	-	28	2050	U-MOSVIII-H
	TK55S10N1	100	±20	55	6.5	-	-	49	3280	U-MOSVIII-H
N-ch	TK20S04K3L #	40	±20	20	14	26	-	18	820	U-MOSIV
	TK35S04K3L #	40	±20	35	10.3	15	-	28	1370	U-MOSIV
	TK50S04K3L #	40	±20	50	5.4	10	-	42	2010	U-MOSIV
	TK8S06K3L #	60	±20	8	54	80	-	10	400	U-MOSIV
	TK20S06K3L #	60	±20	20	29	40	-	18	780	U-MOSIV
	TK30S06K3L #	60	±20	30	18	30	-	28	1350	U-MOSIV
	TK45S06K3L #	60	±20	45	10.5	16.4	-	41	1950	U-MOSIV
	TK80S06K3L #	60	±20	80	5.5	7.8	-	85	4200	U-MOSIV
P-ch	TJ10S04M3L #	-40	-20/+10	-10	44	62	-	19	930	U-MOSVI
	TJ20S04M3L #	-40	-20/+10	-20	22.2	32	-	37	1850	U-MOSVI
	TJ40S04M3L #	-40	-20/+10	-40	9.1	13	-	83	4140	U-MOSVI
	TJ60S04M3L #	-40	-20/+10	-60	6.3	9.4	-	125	6510	U-MOSVI
	TJ80S04M3L #	-40	-20/+10	-80	5.2	7.9	-	158	7770	U-MOSVI
	TJ8S06M3L #	-60	-20/+10	-8	104	130	-	19	890	U-MOSVI
	TJ15S06M3L #	-60	-20/+10	-15	50	63	-	36	1770	U-MOSVI
	TJ30S06M3L #	-60	-20/+10	-30	21.8	28	-	80	3950	U-MOSVI
	TJ50S06M3L #	-60	-20/+10	-50	13.8	17.4	-	124	6290	U-MOSVI
	TJ60S06M3L #	-60	-20/+10	-60	11.2	14.5	-	156	7760	U-MOSVI
	TJ15S10M3	-100	-20/+10	-15	130	-	-	69	3200	U-MOSVI

: With protection Zener diode between gate and source

DFN 8x8

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK10V60W	600	±30	9.7	0.38	20	700	DTMOSIV
	TK12V60W	600	±30	11.5	0.3	25	890	DTMOSIV
	TK16V60W5 &	600	±30	15.8	0.245	43	1350	DTMOSIV (HSD)
	TK16V60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20V60W5 &	600	±30	20	0.19	55	1800	DTMOSIV (HSD)
	TK20V60W	600	±30	20	0.17	48	1680	DTMOSIV
	TK25V60X5 &	600	±30	25	0.15	60	2400	DTMOSIV-H (HSD)
	TK25V60X	600	±30	25	0.135	40	2400	DTMOSIV-H
	TK31V60W5 &	600	±30	30.8	0.109	105	3000	DTMOSIV (HSD)
	TK31V60W	600	±30	30.8	0.098	86	3000	DTMOSIV
	TK31V60X	600	±30	30.8	0.098	65	3000	DTMOSIV-H
	TK14V65W	650	±30	13.7	0.28	35	1300	DTMOSIV
	TK17V65W	650	±30	17.3	0.21	45	1800	DTMOSIV
	TK22V65X5 &	650	±30	22	0.17	50	2400	DTMOSIV-H (HSD)
	TK28V65W5 &	650	±30	27.6	0.14	90	3000	DTMOSIV (HSD)
	TK28V65W	650	±30	27.6	0.12	75	3000	DTMOSIV

& : High Speed Diode type

D2PAK

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch Note(8)	TK65G10N1	100	±20	136[SL]	4.5	81	5400	U-MOSVIII-H

Note(8) : High-speed / Low-capacitance type
SL : $I_{D\ (DC)}$ (Silicon Limit)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK16G60W5 &	600	±30	15.8	0.23	43	1350	DTMOSIV (HSD)
	TK16G60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20G60W	600	±30	20	0.155	48	1680	DTMOSIV
	TK14G65W5 &	650	±30	13.7	0.3	40	1300	DTMOSIV (HSD)
	TK14G65W	650	±30	13.7	0.25	35	1300	DTMOSIV

& : High Speed Diode type

D2PAK+

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	V_{GS}=6V	(nC)	(pF)	
N-ch	TK1R5R04PB	40	±20	160	1.5	2.05	103	5500	U-MOSIX-H

TO-220SM(W)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|=10V	|V_{GS}|=6V	(nC)	(pF)	
N-ch	TK1R4F04PB	40	±20	160	1.35	1.9	103	5500	U-MOSIX-H
	TK200F04N1L	40	±20	200	0.9	1.37	214	14920	U-MOSVIII-H
	TKR74F04PB	40	±20	250	0.74	0.98	227	14200	U-MOSIX-H
	TK160F10N1L	100	±20	160	2.4	3.7	122	10100	U-MOSVIII-H
	TK160F10N1	100	±20	160	2.4	-	121	8510	U-MOSVIII-H
N-ch	TK100F04K3	40	±20	100	3	-	102	4500	U-MOSIV
	TK100F04K3L #	40	±20	100	3	4.5	105	4980	U-MOSIV
	TK100F06K3	60	±20	100	5	-	98	4500	U-MOSIV
	TK130F06K3	60	±20	130	3.4	-	170	8400	U-MOSIV
	TK80F08K3	75	±20	80	4.3	-	175	8200	U-MOSIV
P-ch	TJ100F04M3L #	-40	-20/+10	-100	3.6	5.4	250	9500	U-MOSVI
	TJ200F04M3L	-40	-20/+10	-200	1.8	2.6	460	12800	U-MOSVI
	TJ100F06M3L #	-60	-20/+10	-100	7.1	10.7	250	9000	U-MOSVI
	TJ150F06M3L #	-60	-20/+10	-150	5.6	6.1	420	12500	U-MOSVI

: With protection Zener diode between gate and source

IPAK/New PW-Mold2

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK2Q60D	600	±30	2	4.3	7	280	π-MOSVII
	TK4Q60DA	600	±30	3.5	2.2	11	490	π-MOSVII
	TK5Q60W	600	±30	5.4	0.9	10.5	380	DTMOSIV
	TK6Q60W	600	±30	6.2	0.82	12	390	DTMOSIV
	TK7Q60W	600	±30	7	0.6	15	490	DTMOSIV
	TK8Q60W	600	±30	8	0.5	18.5	570	DTMOSIV
	TK10Q60W	600	±30	9.7	0.43	20	700	DTMOSIV
	TK12Q60W	600	±30	11.5	0.34	25	890	DTMOSIV
	TK5Q65W	650	±30	5.2	1.22	10.5	380	DTMOSIV
	TK6Q65W	650	±30	5.8	1.05	11	390	DTMOSIV
	TK7Q65W	650	±30	6.8	0.8	15	490	DTMOSIV
	TK8Q65W	650	±30	7.8	0.67	16	570	DTMOSIV
	TK9Q65W	650	±30	9.3	0.56	20	700	DTMOSIV
	TK11Q65W	650	±30	11.1	0.44	25	890	DTMOSIV
	TK1Q90A	900	±30	1	9	13	320	π-MOSIV

I2PAK

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK16C60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20C60W	600	±30	20	0.155	48	1680	DTMOSIV
	TK14C65W5 &	650	±30	13.7	0.3	40	1300	DTMOSIV (HSD)
	TK14C65W	650	±30	13.7	0.25	35	1300	DTMOSIV
	TK17C65W	650	±30	17.3	0.2	45	1800	DTMOSIV

& : High Speed Diode type

TO-220

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.(nC)		C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	V_{GS}=4.5V	V_{GS}=10V	V_{GS}=4.5V	(pF)	
N-ch Note(9)	TK3R3E03GL	30	±20	147[SL]	3.3	4.1	67	32	4350	U-MOSVII-H
	TK3R1E04PL	40	±20	128[SL]	3.1	3.8	63.4	29.7	4670	U-MOSIX-H
	TK30E06N1	60	±20	43[SL]	15	-	16	-	1050	U-MOSVIII-H
	TK40E06N1	60	±20	60[SL]	10.4	-	23	-	1700	U-MOSVIII-H
	TK8R2E06PL	60	±20	75[SL]	8.2	11.4	28.3	14.3	1990	U-MOSIX-H
	TK58E06N1	60	±20	105[SL]	5.4	-	46	-	3400	U-MOSVIII-H
	TK4R3E06PL	60	±20	106[SL]	4.3	7.2	48.2	23.9	3280	U-MOSIX-H
	TK100E06N1	60	±20	263[SL]	2.3	-	140	-	10500	U-MOSVIII-H
	TK35E08N1	80	±20	35	12.2	-	25	-	1700	U-MOSVIII-H
	TK46E08N1	80	±20	46	8.4	-	37	-	2500	U-MOSVIII-H
	TK72E08N1	80	±20	157[SL]	4.3	-	81	-	5500	U-MOSVIII-H
	TK100E08N1	80	±20	214[SL]	3.2	-	130	-	9000	U-MOSVIII-H
	TK22E10N1	100	±20	22	13.8	-	28	-	1800	U-MOSVIII-H
	TK34E10N1	100	±20	34	9.5	-	38	-	2600	U-MOSVIII-H
	TK40E10N1	100	±20	40	8.2	-	49	-	3000	U-MOSVIII-H
	TK65E10N1	100	±20	148[SL]	4.8	-	81	-	5400	U-MOSVIII-H
	TK100E10N1	100	±20	207[SL]	3.4	-	140	-	8800	U-MOSVIII-H
	TK32E12N1	120	±20	32	13.8	-	34	-	2000	U-MOSVIII-H
	TK42E12N1	120	±20	42	9.4	-	52	-	3100	U-MOSVIII-H
	TK56E12N1	120	±20	112[SL]	7	-	69	-	4200	U-MOSVIII-H
	TK72E12N1	120	±20	179[SL]	4.4	-	130	-	8100	U-MOSVIII-H
N-ch	TK18E10K3	100	±20	18	42	-	33	-	1580	U-MOSIV

SL : $I_{D\ (DC)}$ (Silicon Limit)
Note(9) : High-speed / Low-capacitance type

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK13E25D	250	±20	13	0.25	25	1100	π-MOSVII
N-ch	TK10E60W	600	±30	9.7	0.38	20	700	DTMOSIV
	TK12E60W	600	±30	11.5	0.3	25	890	DTMOSIV
	TK16E60W5 &	600	±30	15.8	0.23	43	1350	DTMOSIV (HSD)
	TK16E60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20E60W5 &	600	±30	20	0.175	55	1800	DTMOSIV (HSD)
	TK20E60W	600	±30	20	0.155	48	1680	DTMOSIV
	TK25E60X5 &	600	±30	25	0.14	60	2400	DTMOSIV-H (HSD)
	TK25E60X	600	±30	25	0.125	40	2400	DTMOSIV-H
	TK31E60W	600	±30	30.8	0.088	86	3000	DTMOSIV
	TK31E60X	600	±30	30.8	0.088	65	3000	DTMOSIV-H
	TK14E65W5 &	650	±30	13.7	0.3	40	1300	DTMOSIV (HSD)
	TK14E65W	650	±30	13.7	0.25	35	1300	DTMOSIV
	TK17E65W	650	±30	17.3	0.2	45	1800	DTMOSIV
	TK28E65W	650	±30	27.6	0.11	75	3000	DTMOSIV
	TK7E80W	800	±20	6.5	0.95	13	700	DTMOSIV
	TK10E80W	800	±20	9.5	0.55	19	1150	DTMOSIV
	TK12E80W	800	±20	11.5	0.45	23	1400	DTMOSIV
	TK17E80W	800	±20	17	0.29	32	2050	DTMOSIV

& : High Speed Diode type

TO-220SIS

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)		Q_g typ.(nC)		C_{rss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	|V_{GS}|=10V	|V_{GS}|=4.5V	|V_{GS}|=10V	|V_{GS}|=4.5V	(pF)	
N-ch Note(10)	TK3R1A04PL	40	±20	82	3.1	3.8	63.4	29.7	4670	U-MOSIX-H
	TK30A06N1	60	±20	43^{SL}	15	-	16	-	1050	U-MOSVIII-H
	TK40A06N1	60	±20	60^{SL}	10.4	-	23	-	1700	U-MOSVIII-H
	TK8R2A06PL	60	±20	50	8.2	11.4	28.3	14.3	1990	U-MOSIX-H
	TK58A06N1	60	±20	105^{SL}	5.4	-	46	-	3400	U-MOSVIII-H
	TK4R3A06PL	60	±20	68	4.3	7.2	48.2	23.9	3280	U-MOSIX-H
	TK100A06N1	60	±20	263^{SL}	2.7	-	140	-	10500	U-MOSVIII-H
	TK35A08N1	80	±20	55^{SL}	12.2	-	25	-	1700	U-MOSVIII-H
	TK46A08N1	80	±20	80^{SL}	8.4	-	37	-	2500	U-MOSVIII-H
	TK72A08N1	80	±20	157^{SL}	4.5	-	81	-	5500	U-MOSVIII-H
	TK100A08N1	80	±20	214^{SL}	3.2	-	130	-	9000	U-MOSVIII-H
	TK22A10N1	100	±20	52^{SL}	13.8	-	28	-	1800	U-MOSVIII-H
	TK34A10N1	100	±20	75^{SL}	9.5	-	38	-	2600	U-MOSVIII-H
	TK40A10N1	100	±20	90^{SL}	8.2	-	49	-	3000	U-MOSVIII-H
	TK65A10N1	100	±20	148^{SL}	4.8	-	81	-	5400	U-MOSVIII-H
	TK100A10N1	100	±20	207^{SL}	3.8	-	140	-	8800	U-MOSVIII-H
	TK32A12N1	120	±20	60^{SL}	13.8	-	34	-	2000	U-MOSVIII-H
	TK42A12N1	120	±20	88^{SL}	9.4	-	52	-	3100	U-MOSVIII-H
	TK56A12N1	120	±20	112^{SL}	7.5	-	69	-	4200	U-MOSVIII-H
	TK72A12N1	120	±20	179^{SL}	4.5	-	130	-	8100	U-MOSVIII-H
N-ch	TK50A04K3	40	±20	50	3.5	-	102	-	4500	U-MOSIV
	TK80A04K3L #	40	±20	80	2.4	3.5(@6V)	190	-	9400	U-MOSIV
	TK80A08K3	75	±20	80	4.5	-	175	-	8200	U-MOSIV
	TK25A10K3	100	±20	25	40	-	34	-	1580	U-MOSIV
P-ch	TJ9A10M3	-100	±20	-9	170	-	47	-	2900	U-MOSVI
	TJ11A10M3	-100	±20	-11	130	-	69	-	3200	U-MOSVI
	TJ20A10M3	-100	±20	-20	90	-	120	-	5500	U-MOSVI

: With protection Zener diode between gate and source
SL : $I_{D\ (DC)}$ (Silicon Limit)
Note(10) : High-speed / Low-capacitance type

TO-220SIS

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{rss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK10A50W	500	±30	9.7	0.38	20	700	DTMOSIV
	TK12A50W	500	±30	11.5	0.3	25	890	DTMOSIV
	TK19A50W	500	±30	18.5	0.19	38	1350	DTMOSIV
	TK5A60W5 &	600	±30	4.5	0.95	11.5	370	DTMOSIV (HSD)
	TK5A60W	600	±30	5.4	0.9	10.5	380	DTMOSIV
	TK6A60W	600	±30	6.2	0.75	12	390	DTMOSIV
	TK7A60W5 &	600	±30	7	0.65	16	490	DTMOSIV (HSD)
	TK7A60W	600	±30	7	0.6	15	490	DTMOSIV
	TK560A60Y	600	±30	7	0.56	14.5	380	DTMOSV
	TK8A60W5 &	600	±30	8	0.54	22	590	DTMOSIV (HSD)
	TK8A60W	600	±30	8	0.5	18.5	570	DTMOSIV
	TK10A60W5 &	600	±30	9.7	0.45	25	720	DTMOSIV (HSD)
	TK380A60Y	600	±30	9.7	0.38	20	590	DTMOSV
	TK10A60W	600	±30	9.7	0.38	20	700	DTMOSIV
	TK12A60W	600	±30	11.5	0.3	25	890	DTMOSIV
	TK290A60Y	600	±30	11.5	0.29	25	730	DTMOSV
	TK16A60W5 &	600	±30	15.8	0.23	43	1350	DTMOSIV (HSD)
	TK16A60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20A60W5 &	600	±30	20	0.175	55	1800	DTMOSIV (HSD)
	TK20A60W	600	±30	20	0.155	48	1680	DTMOSIV
	TK25A60X5 &	600	±30	25	0.14	60	2400	DTMOSIV-H (HSD)
	TK25A60X	600	±30	25	0.125	40	2400	DTMOSIV-H
	TK31A60W	600	±30	30.8	0.088	86	3000	DTMOSIV
	TK39A60W	600	±30	38.8	0.065	110	4100	DTMOSIV
	TK5A65W	650	±30	5.2	1.2	10.5	380	DTMOSIV
	TK6A65W	650	±30	5.8	1	11	390	DTMOSIV
	TK7A65W	650	±30	6.8	0.78	15	490	DTMOSIV
	TK8A65W	650	±30	7.8	0.65	16	570	DTMOSIV
	TK560A65Y	650	±30	7	0.56	14.5	380	DTMOSV
	TK9A65W	650	±30	9.3	0.5	20	700	DTMOSIV
	TK11A65W	650	±30	11.1	0.39	25	890	DTMOSIV
	TK380A65Y	650	±30	9.7	0.38	20	590	DTMOSV
	TK14A65W5 &	650	±30	13.7	0.3	40	1300	DTMOSIV (HSD)
	TK290A65Y	650	±30	11.5	0.29	25	730	DTMOSV
	TK14A65W	650	±30	13.7	0.25	35	1300	DTMOSIV
	TK17A65W5 &	650	±30	17.3	0.23	50	1800	DTMOSIV (HSD)
	TK17A65W	650	±30	17.3	0.2	45	1800	DTMOSIV
	TK22A65X5 &	650	±30	22	0.16	50	2400	DTMOSIV (HSD)
	TK22A65X	650	±30	22	0.15	50	2400	DTMOSIV
	TK28A65W	650	±30	27.6	0.11	75	3000	DTMOSIV
	TK35A65W5 &	650	±30	35	0.095	115	4100	DTMOSIV (HSD)
	TK35A65W	650	±30	35	0.08	100	4100	DTMOSIV
	TK7A80W	800	±20	6.5	0.95	13	700	DTMOSIV
	TK10A80W	800	±20	9.5	0.55	19	1150	DTMOSIV
	TK12A80W	800	±20	11.5	0.45	23	1400	DTMOSIV
	TK17A80W	800	±20	17	0.29	32	2050	DTMOSIV

& : High Speed Diode type

TO-220SIS

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{rss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK9A20DA	200	±20	8.5	0.4	14	550	π-MOSVII
	TK15A20D	200	±20	15	0.18	26	1050	π-MOSVII
	TK20A20D	200	±20	20	0.109	43	1650	π-MOSVII
	TK25A20D	200	±20	25	0.07	60	2550	π-MOSVII
	TK8A25DA	250	±20	7.5	0.5	16	550	π-MOSVII
	TK13A25D	250	±20	13	0.25	25	1100	π-MOSVII
	TK17A25D	250	±20	17	0.15	43	1650	π-MOSVII
	TK20A25D	250	±20	20	0.1	55	2550	π-MOSVII
	TK18A30D	300	±20	18	0.139	60	2600	π-MOSVII
	TK5A45DA	450	±30	4.5	1.75	9	380	π-MOSVII
	TK6A45DA	450	±30	5.5	1.35	11	490	π-MOSVII
	TK7A45DA	450	±30	6.5	1.2	11	540	π-MOSVII
	TK8A45D	450	±30	8	0.9	16	700	π-MOSVII
	TK9A45D	450	±30	9	0.77	16	800	π-MOSVII
	TK11A45D	450	±30	11	0.62	20	1050	π-MOSVII
	TK12A45D	450	±30	12	0.52	24	1200	π-MOSVII
	TK13A45D	450	±30	13	0.46	25	1350	π-MOSVII
	TK19A45D	450	±30	19	0.25	45	2600	π-MOSVII
	TK4A50D	500	±30	4	2.0	9	380	π-MOSVII
	TK5A50D	500	±30	5	1.5	11	490	π-MOSVII
	TK6A50D	500	±30	6	1.4	11	540	π-MOSVII
	TK7A50D	500	±30	7	1.22	12	600	π-MOSVII
	TK8A50DA	500	±30	7.5	1.04	16	700	π-MOSVII
	TK8A50D	500	±30	8	0.85	16	800	π-MOSVII
	TK10A50D	500	±30	10	0.72	20	1050	π-MOSVII
	TK11A50D	500	±30	11	0.6	24	1200	π-MOSVII
	TK12A50D	500	±30	12	0.52	25	1350	π-MOSVII
	TK13A50DA	500	±30	12.5	0.47	28	1550	π-MOSVII
	TK13A50D	500	±30	13	0.4	38	1800	π-MOSVII
	TK15A50D	500	±30	15	0.3	40	2300	π-MOSVII
	TK18A50D	500	±30	18	0.27	45	2600	π-MOSVII
	TK4A53D	525	±30	4	1.7	11	490	π-MOSVII
	TK5A53D	525	±30	5	1.5	11	540	π-MOSVII
	TK6A53D	525	±30	6	1.3	12	600	π-MOSVII
	TK12A53D	525	±30	12	0.58	25	1350	π-MOSVII
	TK4A55DA	550	±30	3.5	2.45	9	380	π-MOSVII
	TK4A55D	550	±30	4	1.88	11	490	π-MOSVII
	TK5A55D	550	±30	5	1.7	11	540	π-MOSVII
	TK6A55DA	550	±30	5.5	1.48	12	600	π-MOSVII
	TK7A55D	550	±30	7	1.25	16	700	π-MOSVII
	TK8A55DA	550	±30	7.5	1.07	16	800	π-MOSVII
	TK9A55DA	550	±30	8.5	0.86	20	1050	π-MOSVII
	TK10A55D	550	±30	10	0.72	24	1200	π-MOSVII
	TK11A55D	550	±30	11	0.63	25	1350	π-MOSVII
	TK12A55D	550	±30	12	0.57	28	1550	π-MOSVII
	TK13A55DA	550	±30	12.5	0.48	38	1800	π-MOSVII
	TK14A55D	550	±30	14	0.37	40	2300	π-MOSVII
	TK16A55D	550	±30	16	0.33	45	2600	π-MOSVII
	TK3A60DA	600	±30	2.5	2.8	9	380	π-MOSVII
	TK4A60DA	600	±30	3.5	2.2	11	490	π-MOSVII
	TK4A60DB	600	±30	3.7	2.0	11	540	π-MOSVII
	TK4A60D	600	±30	4	1.7	12	600	π-MOSVII
	TK5A60D	600	±30	5	1.43	16	700	π-MOSVII
	TK6A60D	600	±30	6	1.25	16	800	π-MOSVII
	TK8A60DA	600	±30	7.5	1.0	20	1050	π-MOSVII
	TK9A60D	600	±30	9	0.83	24	1200	π-MOSVII
	TK10A60D	600	±30	10	0.75	25	1350	π-MOSVII
	TK11A60D	600	±30	11	0.65	28	1550	π-MOSVII
	TK12A60D	600	±30	12	0.55	38	1800	π-MOSVII
	TK13A60D	600	±30	13	0.43	40	2300	π-MOSVII

TO-220SIS

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK15A60D	600	±30	15	0.37	45	2600	π-MOSVII
	TK2A65D	650	±30	2	3.26	9	380	π-MOSVII
	TK3A65DA	650	±30	2.5	2.51	11	490	π-MOSVII
	TK3A65D	650	±30	3	2.25	11	540	π-MOSVII
	TK4A65DA	650	±30	3.5	1.9	12	600	π-MOSVII
	TK5A65DA	650	±30	4.5	1.67	16	700	π-MOSVII
	TK5A65D	650	±30	5	1.43	16	800	π-MOSVII
	TK6A65D	650	±30	6	1.11	20	1050	π-MOSVII
	TK7A65D	650	±30	7	0.98	24	1200	π-MOSVII
	TK8A65D	650	±30	8	0.84	25	1350	π-MOSVII
	TK11A65D	650	±30	11	0.7	30	1700	π-MOSVII
	TK12A65D	650	±30	12	0.54	40	2300	π-MOSVII
	TK13A65D	650	±30	13	0.47	45	2600	π-MOSVII
	TK4A80E	800	±30	4	3.5	15	650	π-MOSVIII
	TK5A80E	800	±30	5	2.4	20	950	π-MOSVIII
	TK6A80E	800	±30	6	1.7	32	1350	π-MOSVIII
	TK10A80E	800	±30	10	1.0	46	2000	π-MOSVIII
	TK3A90E	900	±30	2.5	4.6	15	650	π-MOSVIII
	TK5A90E	900	±30	4.5	3.1	20	950	π-MOSVIII
	2SK3566	900	±30	2.5	6.4	12	470	π-MOSIV
	2SK3564	900	±30	3	4.3	17	700	π-MOSIV
	2SK3798	900	±30	4	3.5	26	800	π-MOSIV
	TK7A90E	900	±30	7	2.0	32	1350	π-MOSVIII
	TK9A90E	900	±30	9	1.3	46	2000	π-MOSVIII

TO-3P(N)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(mΩ)	Q_g typ.	C_{rss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK70J04K3Z #	40	±20	70	4.1	100	4500	U-MOSIV
	TK75J04K3Z #	40	±20	75	3	190	8450	U-MOSIV
	TK70J06K3	60	±20	70	6	98	4500	U-MOSIV

: With protection Zener diode between gate and source

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{rss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK12J60W	600	±30	11.5	0.3	25	890	DTMOSIV
	TK16J60W5 &	600	±30	15.8	0.23	43	1350	DTMOSIV (HSD)
	TK16J60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20J60W5 &	600	±30	20	0.175	55	1800	DTMOSIV (HSD)
	TK20J60W	600	±30	20	0.155	48	1680	DTMOSIV
	TK31J60W5 &	600	±30	30.8	0.099	105	3000	DTMOSIV (HSD)
	TK31J60W	600	±30	30.8	0.088	86	3000	DTMOSIV
	TK39J60W5 &	600	±30	38.8	0.074	135	4100	DTMOSIV (HSD)
	TK39J60W	600	±30	38.8	0.065	110	4100	DTMOSIV
	TK62J60W5 &	600	±30	61.8	0.045	205	6500	DTMOSIV (HSD)
	TK62J60W	600	±30	61.8	0.04	180	6500	DTMOSIV
N-ch	TK40J20D	200	±20	40	0.044	100	4300	π-MOSVII
	TK70J20D	200	±20	70	0.027	160	6950	π-MOSVII
	TK30J25D	250	±20	30	0.06	100	4300	π-MOSVII
	TK60J25D	250	±20	60	0.038	160	7000	π-MOSVII
	TK50J30D	300	±20	50	0.052	160	7000	π-MOSVII
	TK15J50D	500	±30	15	0.4	38	1800	π-MOSVII
	TK20J50D	500	±30	20	0.27	45	2600	π-MOSVII
	TK12J55D	550	±30	12	0.57	28	1550	π-MOSVII
	TK16J55D	550	±30	16	0.37	40	2300	π-MOSVII
	TK19J55D	550	±30	19	0.33	45	2600	π-MOSVII
	2SK3633	800	±30	7	1.7	35	1500	π-MOSIV
	TK10J80E	800	±30	10	1	46	2000	π-MOSVIII
	TK7J90E	900	±30	7	2	32	1350	π-MOSVIII
	TK9J90E	900	±30	9	1.3	46	2000	π-MOSVIII
	2SK4207	900	±30	13	0.95	45	2790	π-MOSIV

& : High Speed Diode type

TO-247

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK16N60W5 &	600	±30	15.8	0.23	43	1350	DTMOSIV (HSD)
	TK16N60W	600	±30	15.8	0.19	38	1350	DTMOSIV
	TK20N60W5 &	600	±30	20	0.175	55	1800	DTMOSIV (HSD)
	TK20N60W	600	±30	20	0.155	48	1680	DTMOSIV
	TK25N60X5 &	600	±30	25	0.14	60	2400	DTMOSIV-H (HSD)
	TK25N60X	600	±30	25	0.125	40	2400	DTMOSIV-H
	TK31N60W5 &	600	±30	30.8	0.099	105	3000	DTMOSIV (HSD)
	TK31N60W	600	±30	30.8	0.088	86	3000	DTMOSIV
	TK31N60X	600	±30	30.8	0.088	65	3000	DTMOSIV-H
	TK39N60W5 &	600	±30	38.8	0.074	135	4100	DTMOSIV (HSD)
	TK39N60W	600	±30	38.8	0.065	110	4100	DTMOSIV
	TK39N60X	600	±30	38.8	0.065	85	4100	DTMOSIV-H
	TK62N60W5 &	600	±30	61.8	0.045	205	6500	DTMOSIV (HSD)
	TK62N60W	600	±30	61.8	0.04	180	6500	DTMOSIV
	TK62N60X	600	±30	61.8	0.04	135	6500	DTMOSIV-H
	TK14N65W5 &	650	±30	13.7	0.3	40	1300	DTMOSIV (HSD)
	TK14N65W	650	±30	13.7	0.25	35	1300	DTMOSIV
	TK17N65W	650	±30	17.3	0.2	45	1800	DTMOSIV
	TK28N65W5 &	650	±30	27.6	0.13	90	3000	DTMOSIV (HSD)
	TK28N65W	650	±30	27.6	0.11	75	3000	DTMOSIV
	TK35N65W5 &	650	±30	35	0.095	115	4100	DTMOSIV (HSD)
	TK35N65W	650	±30	35	0.08	100	4100	DTMOSIV
	TK49N65W5 &	650	±30	49.2	0.057	185	6500	DTMOSIV (HSD)
	TK49N65W	650	±30	49.2	0.055	160	6500	DTMOSIV

& : High Speed Diode type

TO-247 4L

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK25Z60X	600	±30	25	0.125	40	2400	DTMOSIV-H
	TK31Z60X	600	±30	30.8	0.088	65	3000	DTMOSIV-H
	TK39Z60X	600	±30	38.8	0.065	85	4100	DTMOSIV-H
	TK62Z60X	600	±30	61.8	0.04	135	6500	DTMOSIV-H

TO-3P(L)

Circuit Configuration	Part Number	Absolute Maximum Ratings			$R_{DS(ON)}$ max(Ω)	Q_g typ.	C_{iss} typ.	Remark
		V_{DSS}(V)	V_{GSS}(V)	I_D(A)	V_{GS}=10V	(nC)	(pF)	
N-ch	TK100L60W	600	±30	100	0.018	360	15000	DTMOSIV

Part Naming Conventions

JEITA registration Item Series

Ex) N-channel MOS 2SK ✻✻✻✻

P-channel MOS 2SJ ✻✻✻✻

Conventional Multi-Pin Series

Ex) TPC8 0 67 -H
① ② ③ ④

① Package
TPC6 : VS-6 Series
TPCF8 : VS-8 Series
TPCP8 : PS-8 Series
TPCC8 : TSON Advance Series
TPC8 : SOP-8 Series
TPCA8 : SOP Advance Series

② Polarity / Configuration
0 : N-channel, single
1 : P-channel, single
2 : N-channel, dual
3 : P-channel, dual
4 : N-channel and P-channel, dual
A : N-channel and SBD
B : P-channel and SBD
J : P-channel and NPN

③ Serial number of the products

④ Additional information
H : High-speed type
None : Low-on-resistance type

New Multi-Pin Series

Ex) TPH 4R3 0 4 N C
① ② ③ ④ ⑤ ⑥

① Package
TP6 : VS-6 Series
TPF : VS-8 Series
TPP : PS-8 Series
TPN : TSON Advance Series
TPW : DSOP Advance Series
TP8 : SOP-8 Series
TPH : SOP Advance Series

② Max. on-resistance (at max drive conditions)
R79 = 0.79 mΩ
4R3 = 4.3 mΩ
100 = 10 x 100 = 10 mΩ
101 = 10 x 101 = 100 mΩ

③ Polarity / Configuration
0 : Single N-ch
1 : Single P-ch
2 : Dual N-ch
3 : Dual P-ch
4 : Dual N-ch + P-ch
A : Dual N-ch MOS + SBD
B : Dual P-ch MOS + SBD

④ Drain-source voltage (V_{DSS})
2 : 15 to 24V
3 : 25 to 34V
4 : 35 to 44V
5 : 45 to 54V
6 : 55 to 64V
7 : 65 to 74V
8 : 75 to 84V
A : 95 to 124V
B : 125 to 149V
C : 150 to 179V
D : 180 to 199V
E : 200 to 249V
F : 250 to 299V

⑤ Series
G : U-MOSⅦ
M : U-MOSⅥ
N : U-MOSⅧ
P : U-MOSⅨ

⑥ Additional information
1 to 5 : Serial number of the products
A : VGS = 10V (Drive)
C : VGS = 4.5V (Drive)
D : VGS = 2.5V (Drive)
E : VGS = 2.0V (Drive)
F : VGS = 1.8V (Drive)
H : Low-rg, VGS =10 V (Drive)
M : Low-rg, VGS =6 V (Drive)
L : Low-rg, VGS =4.5 V (Drive)
Q : Tch(max) = Guaranteed up to 175°C+ZD
R : Tch(max) = Guaranteed up to 150°C+ZD
S : Tch(max) = Guaranteed up to 175°C
T : Tch(max) = Guaranteed up to 150°C

3-Pin Series

Ex) TK 40 S 10 K 3 Z
① ② ③ ④ ⑤ ⑥ ⑦

① Polarity
TK: N-channel
TJ: P-channel

② Drain current (I_D)

③ Package
A : TO-220SIS
C : I2PAK
E : TO-220
F : TO-220SM(W)
G : D2PAK
J : TO-3P(N)
L : TO-3P(L)
M : TO-3P(N)IS
N : TO-247
P : DPAK/New PW-Mold
Q : IPAK/New PW-Mold2
S : DPAK+
V : DFN8x8
Z : TO-247 4L

④ Drain-source voltage(V_{DSS}) Display value × 10 = V_{DSS}
06 : V_{DSS}=60 V
10 : V_{DSS}=100 V

⑤ Series
A : π-MOSⅣ
C : π-MOSⅥ
D : π-MOSⅦ
E : π-MOSⅧ
J : U-MOSⅢ
K : U-MOSⅣ
M : U-MOSⅥ
N : U-MOSⅧ
U : DTMOSⅡ
V : DTMOSⅢ
W : DTMOSⅣ
X : DTMOSⅣ-H

⑥ Additional information (1)
1 : Low-capacitance type
3 : Low-on-resistance type
5 : Fast body diode type

⑦ Additional information (2)
L : VGS = 4.5V (Drive)
H : VGS = 10 V (Drive)
M : VGS = 6 V (Drive)
S : VGS = 4.5V (Drive)
Z : With protection Zener diode between gate and source

New 3-Pin Series

Ex) TK R74 F 04 P B
① ② ③ ④ ⑤ ⑥

① Polarity
TK: N-channel
TJ: P-channel

② Max. on-resistance V_{DSS} = 400 V less than the product (at max drive conditions)
R74 = 0.74 mΩ
8R2 = 8.2 mΩ
100 = 10 x 100 = 10 mΩ
101 = 10 x 101 = 100 mΩ
Max. on-resistance V_{DSS} = 400 V or more products (at max drive conditions)
047 = 0.047Ω
410 = 0.41Ω
4K7 = 4.7Ω

③ Package
A : TO-220SIS
C : I2PAK
E : TO-220
F : TO-220SM(W)
G : D2PAK
J : TO-3P(N)
L : TO-3P(L)
M : TO-3P(N)IS
N : TO-247
P : DPAK/New PW-Mold
P : DPAK/New PW-Mold
Q : IPAK/New PW-Mold2
R : D2PAK+
S : DPAK+
V : DFN8x8
Z : TO-247 4L

④ Drain-source voltage(V_{DSS}) : Display value × 10 times = V_{DSS}
04: V_{DSS}=40V
10: V_{DSS}=100V

⑤ Series
G : U-MOSⅦ
M : U-MOSⅥ
N : U-MOSⅧ
P : U-MOSⅨ
Y : DTMOSⅤ

⑥ Additional information
A : VGS = 10 V (Drive)
B : VGS = 6 V (Drive)
C : VGS = 4.5 V (Drive)
H : Low-rg, VGS = 10 V (Drive)
M : Low-rg, VGS = 6 V (Drive)
L : Low-rg, VGS = 4.5 V (Drive)

Not Recommended for New Design and EOL announced

Part Number	Polarity	Package name (Toshiba)	Generation	Recommended Product
2SJ360	P-ch	PW-Mini	L2-π-MOSV	
2SJ377	P-ch	PW-Mold/ New PW-Mold	L2-π-MOSV	TJ8S06M3L(Almost same package but similar characteristics) TJ15S06M3L(Almost same package but similar characteristics)
2SJ438	P-ch	TO-220NIS	L2-π-MOSV	TPCP8111(Different package and similar characteristics)
2SJ439	P-ch	New PW-Mold	L2-π-MOSV	TJ8S06M3L(Almost same package but similar characteristics)
2SJ511	P-ch	PW-Mini	L2-π-MOSV	TPCP8109(Different package and similar characteristics)
2SJ567	P-ch	New PW-Mold	π-MOSV	
2SJ619	P-ch	TFP	L2-π-MOSV	
2SJ668	P-ch	New PW-Mold	U-MOSIII	TJ8S06M3L(Almost same package but similar characteristics)
2SK1381	N-ch	TO-3P(N)	L2-π-MOSIII	
2SK1382	N-ch	TO-3P(L)	L2-π-MOSIII	
2SK2173	N-ch	TO-3P(N)	L2-π-MOSV	TK100F06K3(Different package and similar characteristics)
2SK2201	N-ch	New PW-Mold	L2-π-MOSV	
2SK2231	N-ch	New PW-Mold	L2-π-MOSV	TK25S06N1L(Different package and similar characteristics)
2SK2233	N-ch	TO-3P(N)	L2-π-MOSV	TK100F06K3(Different package and similar characteristics)
2SK2267	N-ch	TO-3P(L)	L2-π-MOSV	TK100F06K3(Different package and similar characteristics)
2SK2399	N-ch	New PW-Mold	L2-π-MOSV	
2SK2615	N-ch	PW-Mini	L2-π-MOSV	TPCP8013(Different package and similar characteristics)
2SK2962	N-ch	TO-92MOD	L2-π-MOSV	
2SK2964	N-ch	PW-Mini	L2-π-MOSV	TPCP8011(Different package and similar characteristics)
2SK2968	N-ch	TO-3P(N)	π-MOSIII(HV)	TK9J90E(Almost same package but similar characteristics)
2SK2989	N-ch	TO-92MOD	L2-π-MOSVI	TPCP8007-H(Different package and similar characteristics)
2SK3017	N-ch	TO-3P(N)IS	π-MOSIII(HV)	TK9J90E(Different package and similar characteristics)
2SK3176	N-ch	TO-3P(N)	π-MOSV	TK40J20D(Almost same package but similar characteristics)
2SK3205	N-ch	PW-Mold/ New PW-Mold	L2-π-MOSV	
2SK3314	N-ch	TO-3P(N)	π-MOSV	TK16J60W5(Almost same package but similar characteristics)
2SK3387	N-ch	TFP	L2-π-MOSV	TPH5900CNH(Different package and similar characteristics)
2SK3444	N-ch	TFP	π-MOSV	TK25A20D(Different package and similar characteristics)
2SK3445	N-ch	TFP	π-MOSV	TK20A25D(Different package and similar characteristics)
2SK3498	N-ch	New PW-Mold	π-MOSV	TK3P50D(Almost same package but similar characteristics)
2SK3658	N-ch	PW-Mini	L2-π-MOSV	TPCP8013(Different package and similar characteristics)
2SK3669	N-ch	New PW-Mold	π-MOSVII	TK40S10K3Z(Almost same package but similar characteristics) TK55S10N1(Almost same package but similar characteristics)
2SK3670	N-ch	TO-92MOD	L2-π-MOSV	
2SK3767	N-ch	TO-220SIS	π-MOSVI	TK3A60DA(Almost same package but similar characteristics)
2SK3842	N-ch	TFP	U-MOSIII	TK100F06K3(Different package and similar characteristics)
2SK3843	N-ch	TFP	U-MOSIII	TK100F04K3L(Different package and similar characteristics) TK100S04N1L(Almost same package but similar characteristics)
2SK3845	N-ch	TO-3P(N)	U-MOSIII	TK58A06N1(Different package and similar characteristics) TK58E06N1(Different package and similar characteristics)
2SK3878	N-ch	TO-3P(N)	π-MOSIV(HV)	TK9J90E(Almost same package but similar characteristics)
2SK3940	N-ch	TO-3P(N)	U-MOSIII	TK80F08K3(Different package and similar characteristics)
2SK4002	N-ch	New PW-Mold2	π-MOSV	TK2Q60D(Almost same package but similar characteristics)
2SK4017	N-ch	New PW-Mold2	U-MOSIII	TK8S06K3L(Different package and similar characteristics)
2SK4018	N-ch	New PW-Mold2	L2-π-MOSV	
2SK4019	N-ch	New PW-Mold2	L2-π-MOSV	
2SK4034	N-ch	TFP	U-MOSIII	TK100F06K3(Different package and similar characteristics)
TJ120F06J3	P-ch	TO-220SM(W)	U-MOSIII	TJ150F06M3L(Almost same package but similar characteristics)
TK25E06K3	N-ch	TO-220	U-MOSIV	TK30E06N1(Almost same package but similar characteristics) TK40E06N1(Almost same package but similar characteristics)
TK30A06J3A	N-ch	TO-220SIS	U-MOSIII	TK30A06N1(Almost same package but similar characteristics) TK30E06N1(Different package and similar characteristics)
TK40A08K3	N-ch	TO-220SIS	U-MOSIV	TK80F08K3(Different package and similar characteristics)
TK40A10K3	N-ch	TO-220SIS	U-MOSIV	TK22A10N1(Almost same package but similar characteristics) TK34A10N1(Almost same package but similar characteristics)
TK40E10K3	N-ch	TO-220	U-MOSIV	TK22E10N1(Almost same package but similar characteristics) TK34E10N1(Almost same package but similar characteristics)
TK40X10J1	N-ch	TFP	U-MOSIII	
TK50E06K3A	N-ch	TO-220	U-MOSIV	TK40E06N1(Almost same package but similar characteristics) TK58E06N1(Almost same package but similar characteristics)
TK50F15J1	N-ch	TO-220SM(W)	U-MOSIII	
TK50X15J1	N-ch	TFP	U-MOSIII	
TK5A50D5	N-ch	TO-220SIS	π-MOSVII	TK5A60W5(Almost same package but similar characteristics)
TK60P03M1	N-ch	DPAK	U-MOSVI-H	TK50P03M1(Almost same package but similar characteristics) TK45P03M1(Almost same package but similar characteristics)
TK70J04J3	N-ch	TO-3P(N)	U-MOSIII	TK100F04K3L(Different package and similar characteristics)
TK70X04K3Z	N-ch	TFP	U-MOSIV	TK100F04K3(Different package and similar characteristics)

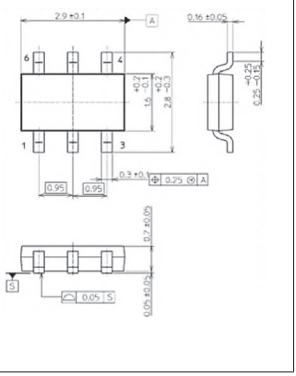
Not Recommended for New Design and EOL announced

Part Number	Polarity	Package name (Toshiba)	Generation	Recommended Product
TK70X04K3	N-ch	TFP	U-MOSⅣ	TK100F04K3(Different package and similar characteristics)
TK70X06K3	N-ch	TFP	U-MOSⅣ	TK100F06K3(Different package and similar characteristics)
TK75A06K3	N-ch	TO-220SIS	U-MOSⅣ	TK58A06N1(Almost same package but similar characteristics) TK58E06N1(Different package and similar characteristics)
TK80E06K3A	N-ch	TO-220	U-MOSⅣ	TK58E06N1(Almost same package but similar characteristics) TK40E06N1(Almost same package but similar characteristics)
TK80X04K3L	N-ch	TFP	U-MOSⅣ	TK100F04K3L(Different package and similar characteristics)
TK80X04K3	N-ch	TFP	U-MOSⅣ	TK100F04K3(Different package and similar characteristics)
TPC6011	N-ch	VS-6	U-MOSⅣ	TPC6067(Almost same package but similar characteristics) TPCC8067-H(Different package and similar characteristics)
TPC6103	P-ch	VS-6	U-MOSⅢ	TPC6110(Almost same package but similar characteristics) TPCF8107(Different package and similar characteristics)
TPC8028	N-ch	SOP-8	U-MOSⅣ	TP86R203NL(Almost same package but similar characteristics) TPC8062-H(Almost same package but similar characteristics)
TPC8035-H	N-ch	SOP-8	U-MOSⅥ-H	TPC8057-H(Almost same package but similar characteristics) TPC8056-H(Almost same package but similar characteristics)
TPC8036-H	N-ch	SOP-8	U-MOSⅥ-H	TPC8059-H(Almost same package but similar characteristics) TPC8058-H(Almost same package but similar characteristics)
TPC8037-H	N-ch	SOP-8	U-MOSⅤ-H	TP89R103NL(Almost same package but similar characteristics) TPC8065-H(Almost same package but similar characteristics)
TPC8039-H	N-ch	SOP-8	U-MOSⅥ-H	TP86R203NL(Almost same package but similar characteristics) TPC8062-H(Almost same package but similar characteristics)
TPC8041	N-ch	SOP-8	U-MOSⅣ	TP89R103NL(Almost same package but similar characteristics) TP86R203NL(Almost same package but similar characteristics)
TPC8061-H	N-ch	SOP-8	U-MOSⅥ-H	TPC8067-H(Almost same package but similar characteristics) TPC8066-H(Almost same package but similar characteristics)
TPC8117	P-ch	SOP-8	U-MOSⅤ	TPC8120(Almost same package but similar characteristics) TPC8128(Almost same package but similar characteristics)
TPC8118	P-ch	SOP-8	U-MOSⅤ	TPC8127(Almost same package but similar characteristics) TPC8123(Almost same package but similar characteristics)
TPC8119	P-ch	SOP-8	U-MOSⅤ	TPC8125(Almost same package but similar characteristics) TPC8126(Almost same package but similar characteristics)
TPCA8006-H	N-ch	SOP Advance	π-MOSⅦ	
TPCA8020-H	N-ch	SOP Advance	U-MOSⅢ-H	TPC8089-H(Different package and similar characteristics) TK15S04N1L(Different package and similar characteristics)
TPCA8026	N-ch	SOP Advance	U-MOSⅣ	TPH3R203NL(Almost same package but similar characteristics) TPCA8059-H(Almost same package but similar characteristics)
TPCA8050-H	N-ch	SOP Advance	U-MOSⅥ-H	TPH11006NL(Almost same package but similar characteristics) TPH14006NH(Almost same package but similar characteristics)
TPCA8104	P-ch	SOP Advance	U-MOSⅢ	TPCA8123(Almost same package but similar characteristics) TPCA8125(Almost same package but similar characteristics)
TPCA8107-H	P-ch	SOP Advance	U-MOSⅢ-H	TPC8132(Different package and similar characteristics) TPC8134(Different package and similar characteristics)
TPCA8108	P-ch	SOP Advance	U-MOSⅢ	TPCA8124(Almost same package but similar characteristics) TJ40S04M3L(Different package and similar characteristics)
TPCC8007	N-ch	TSON Advance	U-MOSⅣ	TPCC8093(Almost same package but similar characteristics) TPN2R703NL(Almost same package but similar characteristics)
TPCC8102	P-ch	TSON Advance	U-MOSⅤ	TPCC8131(Almost same package but similar characteristics) TPCC8103(Almost same package but similar characteristics)
TPCF8002	N-ch	VS-8	U-MOSⅣ	TPCF8004(Almost same package but similar characteristics) TPCC8067-H(Different package and similar characteristics)
TPCF8101	P-ch	VS-8	U-MOSⅢ	TPCF8107(Almost same package but similar characteristics) TPCC8131(Different package and similar characteristics)
TPCF8104	P-ch	VS-8	U-MOSⅣ	TPCF8107(Almost same package but similar characteristics) TPCP8106(Different package and similar characteristics)
TPCF8302	P-ch x 2	VS-8	U-MOSⅣ	TPCF8305(Almost same package but similar characteristics) TPCF8306(Almost same package but similar characteristics)
TPCP8005-H	N-ch	PS-8	U-MOSⅤ-H	TPN8R903NL(Different package and similar characteristics) TPN11003NL(Different package and similar characteristics)
TPCP8006	N-ch	PS-8	U-MOSⅣ	TPN6R003NL(Different package and similar characteristics) TPN8R903NL(Different package and similar characteristics)
TPCP8008-H	N-ch	PS-8	U-MOSⅥ-H	TPCC8066-H(Different package and similar characteristics) TPCC8067-H(Different package and similar characteristics)
TPCP8102	P-ch	PS-8	U-MOSⅣ	TPCP8105(Almost same package but similar characteristics) TPCP8106(Almost same package but similar characteristics)
TPCP8103-H	P-ch	PS-8	U-MOSⅢ-H	TPCP8109(Almost same package but similar characteristics) TJ15P04M3(Different package and similar characteristics)
TPCP8403	N-ch + P-ch	PS-8	U-MOSⅢ/ U-MOSⅣ	TPCP8406(Almost same package but similar characteristics) TPCP8407(Almost same package but similar characteristics)
TPCP8A05-H	N-ch	PS-8	U-MOSⅤ-H	TPCC8066-H(Different package and similar characteristics) TPN8R903NL(Different package and similar characteristics)
TPCP8J01	P-ch	PS-8	U-MOSⅣ	

Dimensional Out Line

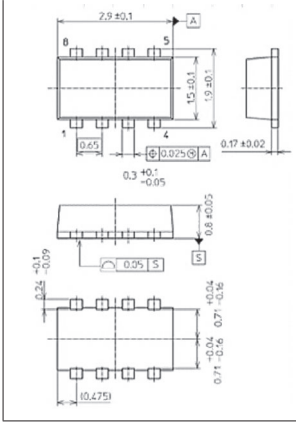
VS-6

Unit: mm



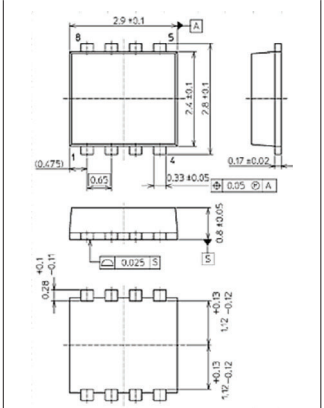
VS-8

Unit: mm



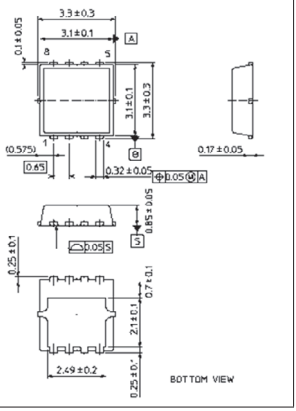
PS-8

Unit: mm



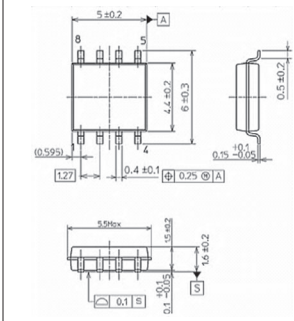
TSON Advance

Unit: mm



SOP-8

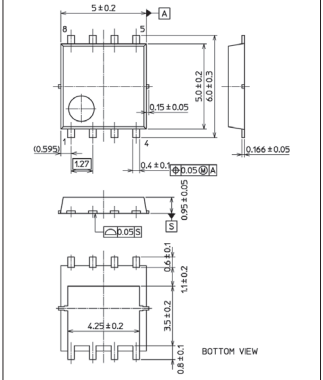
Unit: mm



(2-6J1S)

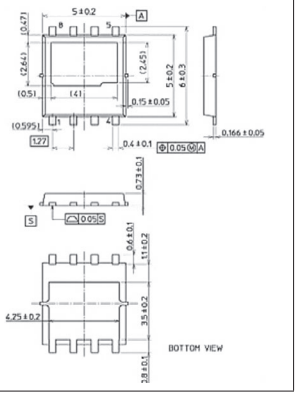
SOP Advance

Unit: mm



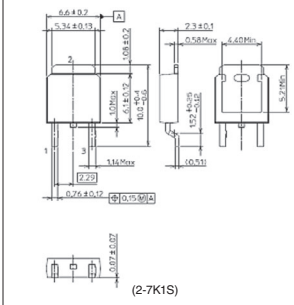
DSOP Advance

Unit: mm



DPAK

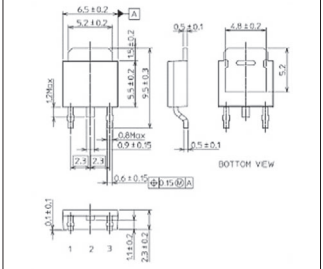
Unit: mm



(2-7K1S)

New PW-Mold

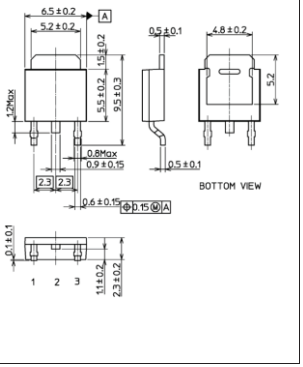
Unit: mm



Dimensional Out Line

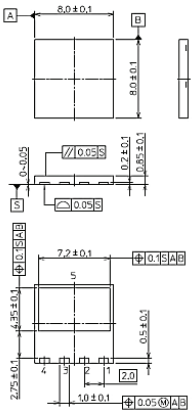
DPAK+

Unit: mm



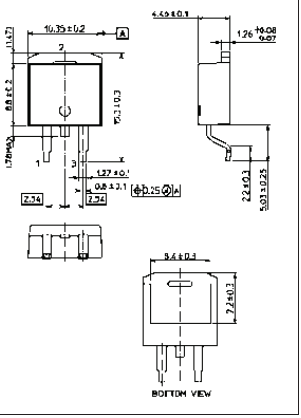
DFN 8x8

Unit: mm



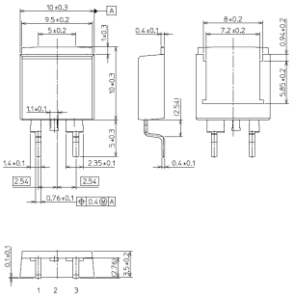
D2PAK

Unit: mm



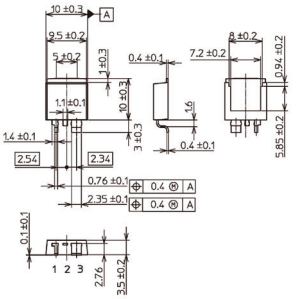
D2PAK+

Unit: mm



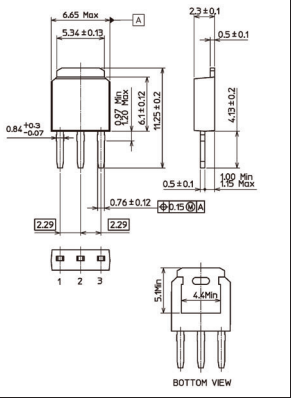
TO-220SM(W)

Unit: mm



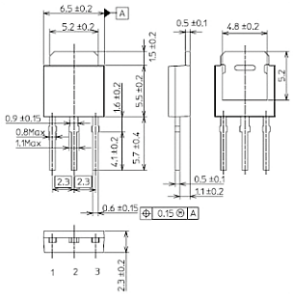
IPAK

Unit: mm



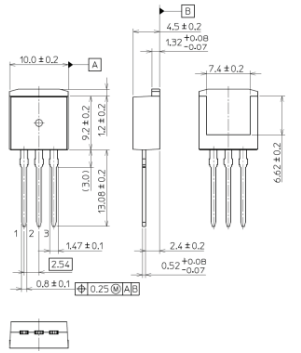
New PW-Mold2

Unit: mm



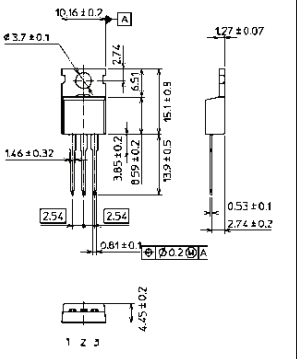
I2PAK

Unit: mm



TO-220

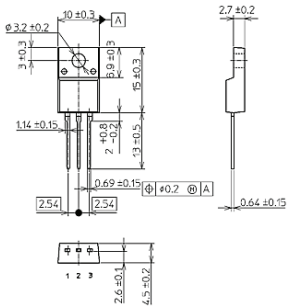
Unit: mm



Dimensional Out Line

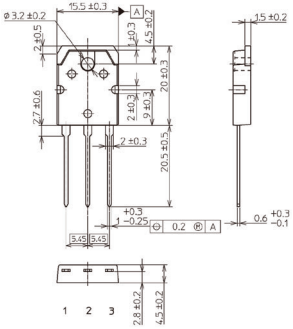
TO-220SIS

Unit: mm



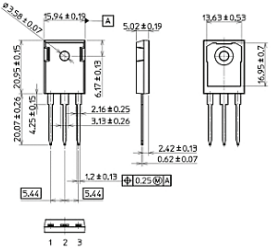
TO-3P(N)

Unit: mm



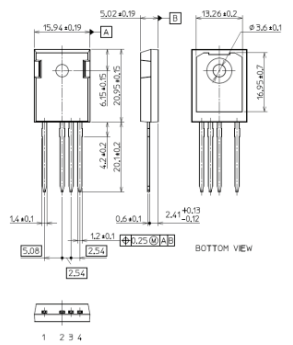
TO-247

Unit: mm



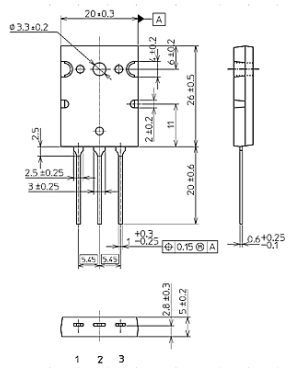
TO-247 4L

Unit: mm



TO-3P(L)

Unit: mm



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