Features

- High Power and current handing capability
- Lead free product is acquired
- Surface Mount Package
- Available in SOT23 Package

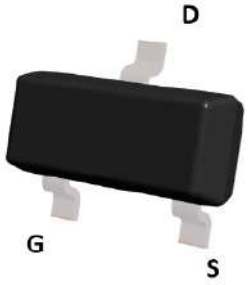
Product Summary

RoHS

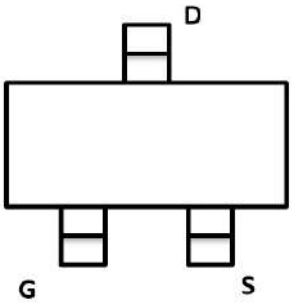
V_{DS}	30	V
$R_{DS(on),Typ}$@ V_{GS}=10 V	25	mΩ
I_D	6.5	A

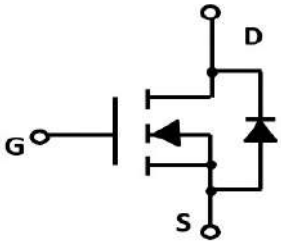
Applications

- PWM applications
- Load switch
- Power management



Top View





SOT-23

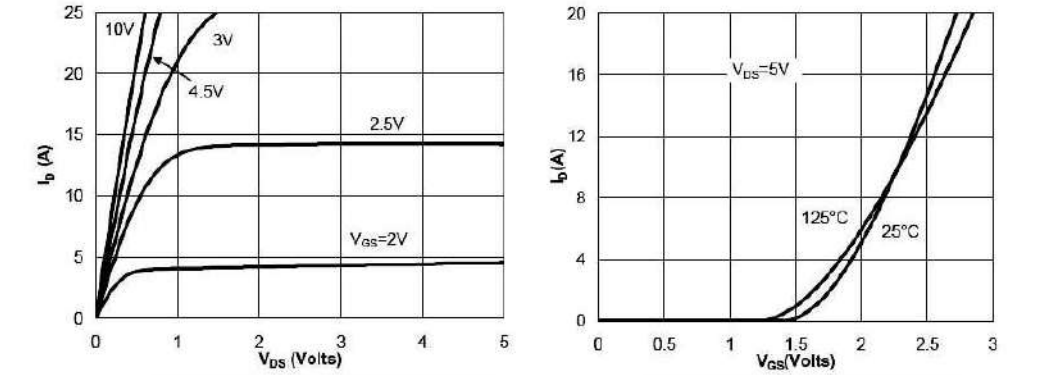
Absolute Maximum Ratings(Ta=25℃)

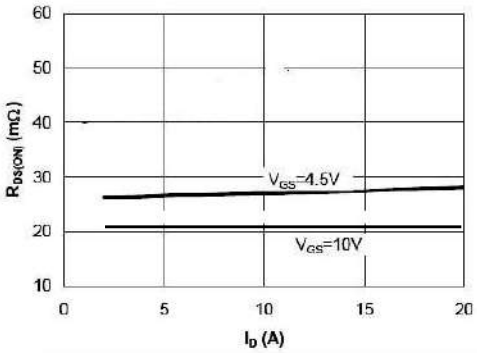
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Drain Current – Continuous	I_D	6.5	A
Drain Current- Continuous	I_D(T_a=70℃)	5.2	A
Pulsed Drain Current	I_{DM}	34	A
Gate-Source Voltage	V_{GS}	±20	V
Total Power Dissipation	P_D	1.4	W
Total Power Dissipation	P_D(T_a=70℃)	1.0	W
Operating and Storage Junction Temperature Range	T_J, T_{STG}	-55 to 150	℃

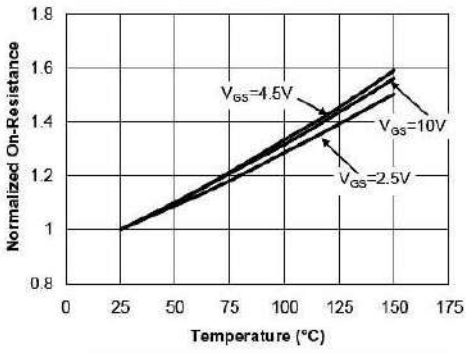
Electrical Characteristics(Ta=25℃)

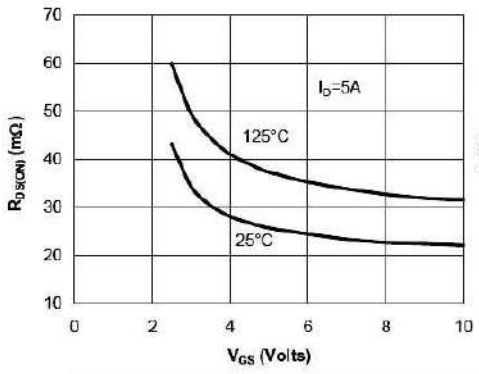
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Drain–Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250μA	30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=24V V_{GS}=0V			1	μA
		V_{DS}=24V V_{GS}=0V T_J=55℃			5	μA
Gate–Body Leakage.	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±0.1	μA
On–State Drain Current	$I_{D(on)}$	V_{GS}=4.5V V_{DS}=5V	30			A
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250μA	1.3	1.8	2.3	V
Static Drain–Source On–Resistance	$R_{DS(on)(1)}$	V_{GS}=10V I_D=6.5A		25	35	mΩ
	$R_{DS(on)(2)}$	V_{GS}=10V I_D=6.5A T_J=125℃			55	
	$R_{DS(on)(3)}$	V_{GS}=4.5V I_D=5A		45	50	
Forward Transconductance	g_{FS}	V_{DS}=5V I_D=5A	8.5			S
Drain–Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1A		0.77	1	V
Input Capacitance	C_{iss}	V_{DS}=15V V_{GS}=0V f=1MHz		345	690	pF
Output Capacitance	C_{oss}			55		
Reverse Transfer Capacitance	C_{rss}			32		
Turn–On Delay Time	$t_{d(on)}$	V_{GS}=10V R_L=2.7Ω V_{DS}=15V R_{GEN}=6Ω		2.8		ns
Turn–On Rise Time	t_r			7.2		
Turn–Off Delay Time	$t_{d(off)}$			15.8		
Turn–Off Fall Time	t_f			4.6		

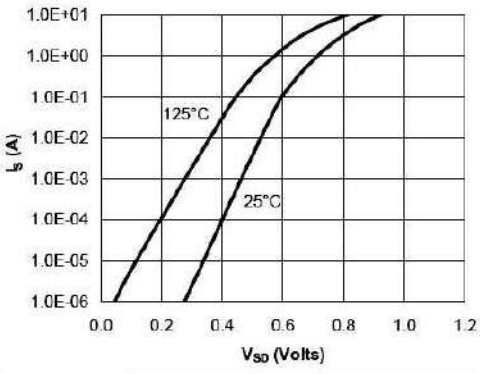
TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

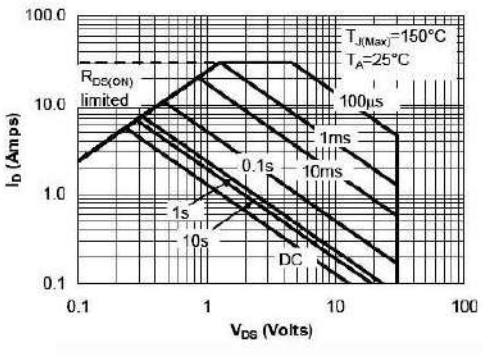


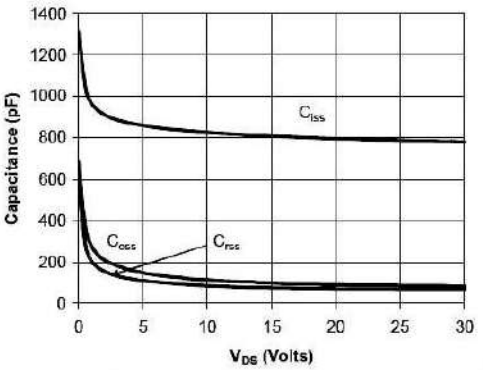




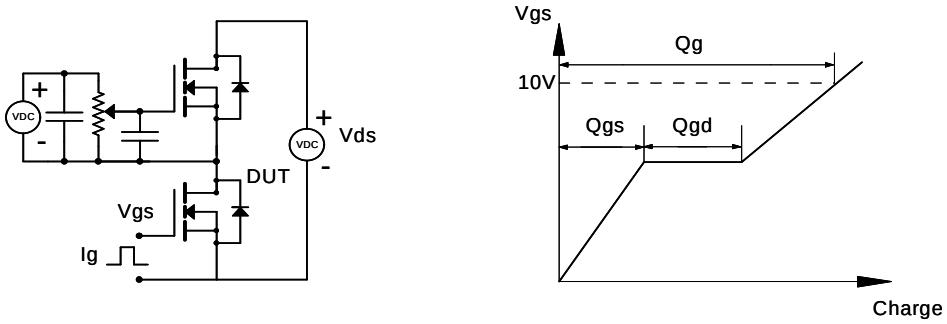




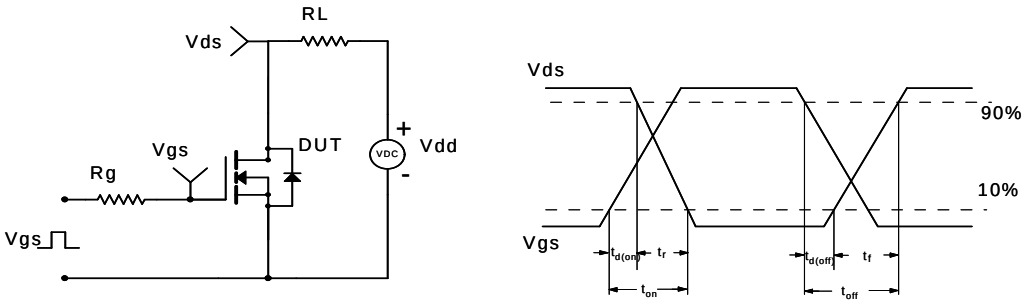




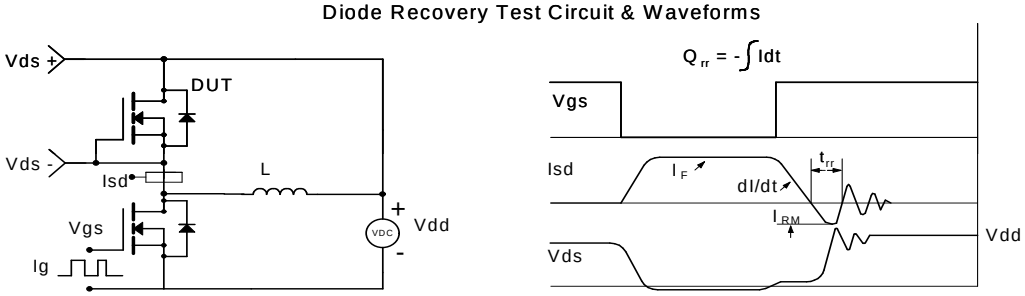
Gate Charge Test Circuit & Waveform



Resistive Switching Test Circuit & Waveforms



Diode Recovery Test Circuit & Waveforms

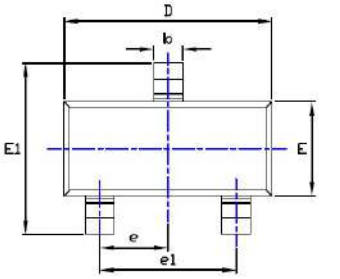


Ordering and Marking Information

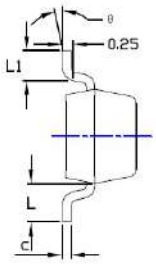
Ordering Device No.	Marking	Package	Packing	Quantity
ASDM3404ZA-R	3404	SOT-23	Tape&Reel	3000/Reel

PACKAGE	MARKING
SOT-23	3404

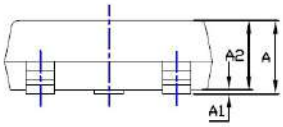
SOT-23 Package information



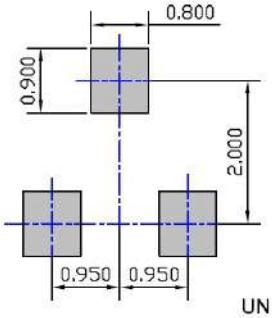
TOP VIEW



SIDE VIEW



SIDE VIEW



UNIT：mm

SUGGESTED SOLDER PAD LAYOUT

SYMBOL	DIMENSIONS					
	INCHES			Millimeter		
	MIN.	NOM.	MAX.	MIN.	NOM.	MAX.
A	0.035	---	0.045	0.900	---	1.150
A1	0.000	---	0.004	0.000	---	0.100
A2	0.035	0.038	0.041	0.900	0.975	1.050
b	0.012	0.016	0.020	0.300	0.400	0.500
c	0.004	---	0.008	0.100	---	0.200
D	0.110	0.114	0.118	2.800	2.900	3.000
E	0.047	0.051	0.055	1.200	1.300	1.400
E1	0.089	0.094	0.100	2.250	2.400	2.550
e	0.037TYP			0.950TYP		
e1	0.071	0.075	0.079	1.800	1.900	2.000
L	0.022REF			0.550REF		
L1	0.012	0.016	0.200	0.300	0.400	0.500
θ	0°	---	8°	0°	---	8°

NOTE:
1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

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