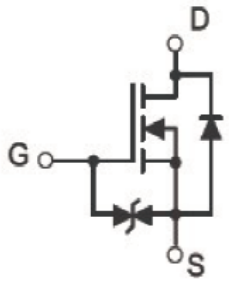
2N7002KW

N-Channel MOSFET

»Features

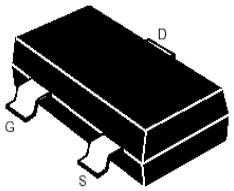
V_{DS} = 60V
I_D = 0.2A
$R_{DS(ON)}$ @V_{GS} = 10V, Max =3Ω
$R_{DS(ON)}$ @V_{GS} = 4.5V, Max =4Ω

»Pin Configurations



»General Description

- Super High dense cell design for extremely low RDS(ON)
- Reliable and Rugged.
- SOT-323 for Surface Mount Package.
- ESD protected



SOT-323

»Absolute Maximum Ratings @T_A=25℃ unless otherwise noted

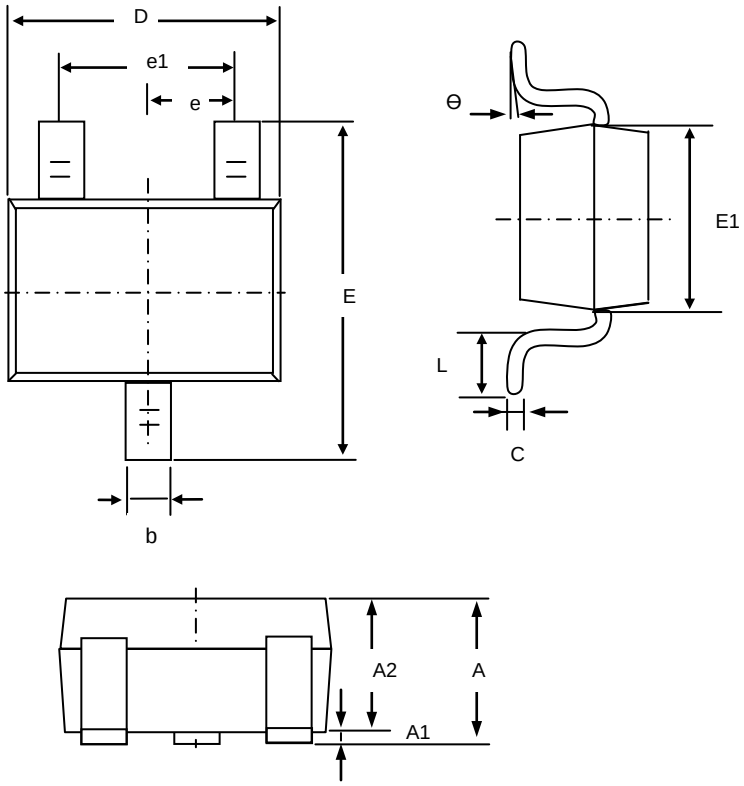
Parameter	Symbol	Limit	Units
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	0.2	A
Power Dissipation	P_D	0.225	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-50~+150	

»Electrical Characteristics @T_A=25℃ unless otherwise noted

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static Characteristics						
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS} = 0 V, I_{DS} = 250 μ A	60	-	-	V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS} = V_{GS}, I_{DS} = 250 μ A	0.8	1.5	2.5	V
I_{DSS}	Drain Leakage Current	V_{DS} = 48 V, V_{GS} = 0V	-	-	1	μ A
		T_J = 85 ℃	-	-	30	μ A
I_{GSS}	Gate Leakage Current	V_{GS} = ±20 V, V_{DS} = 0 V	-	-	±10	μ A
$R_{DS(ON)}$ [a]	On-State Resistance	V_{GS} = 10 V, I_{DS} = 0.5 A	-	1.9	3	Ω
		V_{GS} = 4.5 V, I_{DS} = 0.2 A	-	2.4	4	Ω
Diode Characteristics						
V_{SD}	Diode Forward Voltage	I_{SD} = 0.5 A, V_{GS} = 0 V	-	0.7	1.3	V

»Package Information

SOT-323



Symbol	Dim in mm		
	Min	Nor	Max
A	0.90	1.00	1.10
A1	0.00	0.05	0.10
A2	0.90	0.95	1.00
b	0.20	0.30	0.40
c	0.08	0.12	0.15
D	2.00	2.10	2.20
E	2.15	2.30	2.45
E1	1.15	1.25	1.35
e	0.650TPY.		
e1	1.2	1.3	1.4
L	0.26	0.36	0.46
θ	0°	4°	8°

»Ordering information

Order code	Package	Marking	Base qty	Delivery mode
2N7002KW	SOT-323	72K	3K	Tape and reel