

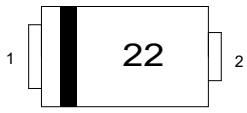

Features

- Halogen Free. "Green" Device (Note 1)
- Low Profile Package
- High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	V_{RMS}	21	V
Average Rectified Forward Current @ $T_L=130^{\circ}\text{C}$	$I_{F(AV)}$	2	A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	30	A
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	I^2t	3.735	A^2s

Internal Structure

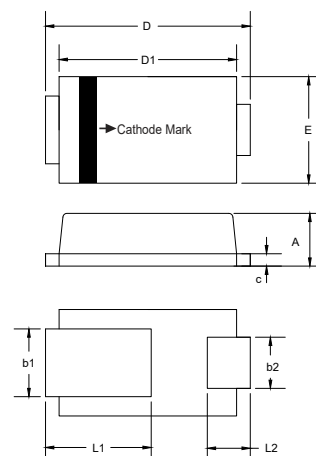
Pin	Description	Simplified outline	Graphic symbol
1	Cathode		
2	Anode		

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

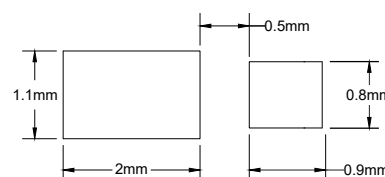
2 Amp Schottky Rectifier 30 Volts

SOD-323HE



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.024	0.029	0.60	0.73	
b1	0.030	0.039	0.75	1.00	
b2	0.022	0.030	0.55	0.75	
c	0.004	0.010	0.10	0.25	
D	0.091	0.106	2.30	2.70	
D1	0.083	0.091	2.10	2.30	
E	0.047	0.055	1.20	1.40	
L1	0.043	0.059	1.10	1.50	
L2	0.020	0.028	0.50	0.70	

SUGGESTED SOLDER PAD LAYOUT



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
$R_{th(J-C)}$	Thermal Resistance from Junction to Case	Note 1		20		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		105		°C/W

Note:

1. Mounted on PCB with 6.0 mm x 6.0 mm copper pad areas, $R_{th(J-L)}$ is measured at the terminal of cathode band, $R_{th(J-C)}$ is measured at the top center of the body.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=2A; T_J=25^{\circ}C$ $I_F=2A; T_J=125^{\circ}C$		0.53 0.47	0.60 0.55	V
Reverse Current	I_R	at Rated $V_R; T_J=25^{\circ}C$		5	50	μA
		at Rated $V_R; T_J=125^{\circ}C$		2	15	mA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		70		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

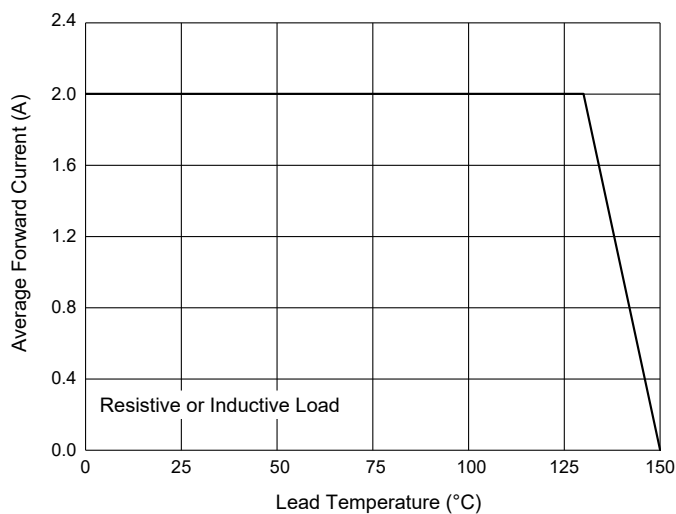


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

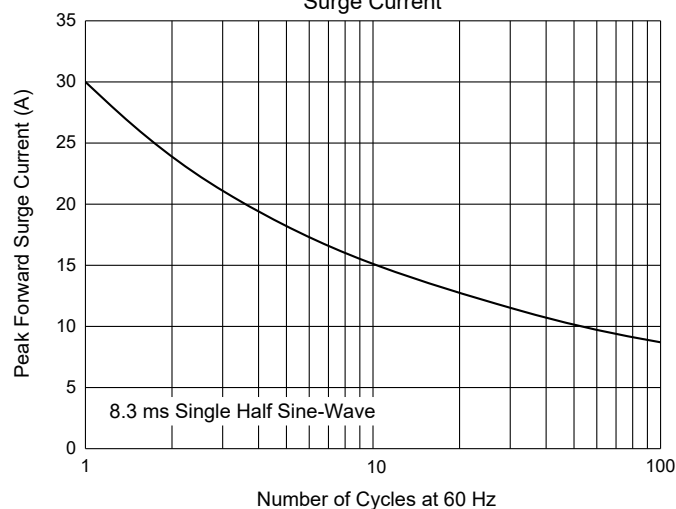


Fig. 3 - Typical Forward Characteristics

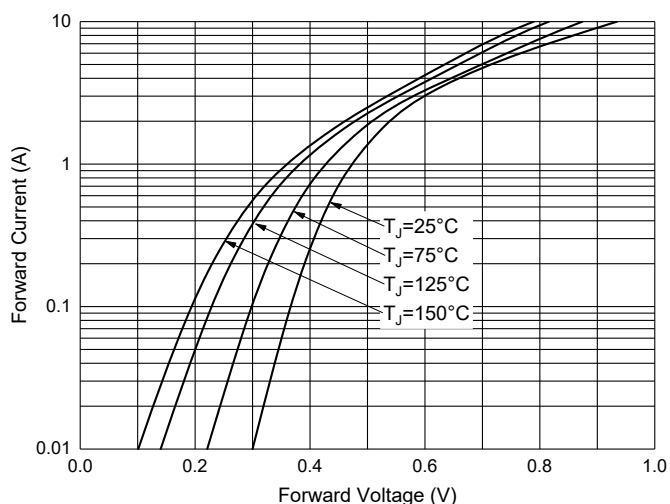


Fig. 4 - Typical Forward Characteristics

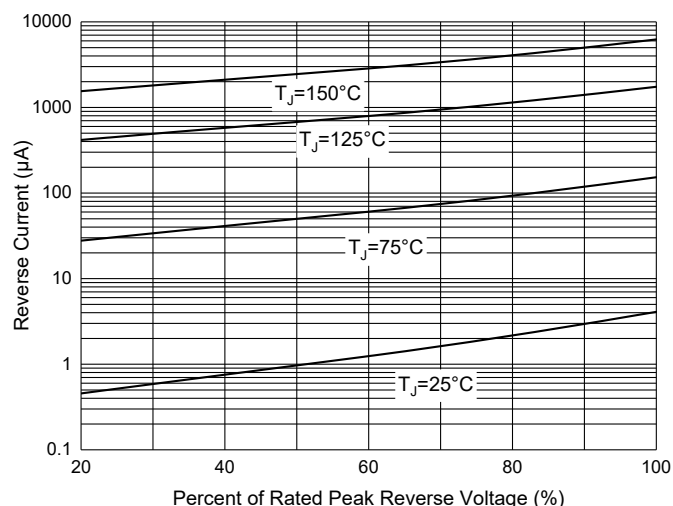
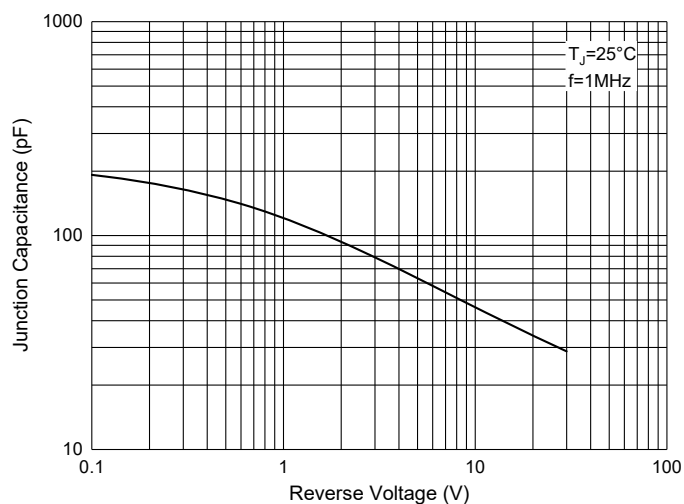


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
SMD23PE-TP	Tape&Reel:4.5Kpcs/Reel

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