

Features

- Halogen Free. "Green" Device (Note 1)
- High Current Capability
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Guardring For Overvoltage Protection.
- Silicon Epitaxial Planar Chip, Metal Silicon Junction
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 60°C/W Junction to Ambient^(Note 3)
- Typical Thermal Resistance: 28°C/W Junction to Case^(Note 3)
- Typical Thermal Resistance: 6°C/W Junction to Lead^(Note 3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SMD33LHE1	T3	30V	21V	30V

Electrical Characteristics @ 25°C Unless Otherwise Specified

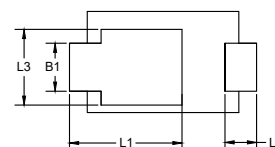
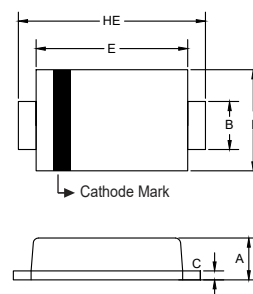
Average Forward Current	$I_{F(AV)}$	3.0A	$T_L = 125^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	80A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	0.42V(Max) 0.38V(Typ)	$I_{FM}=3.0A;$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	120 μ A	$V_R=30V; T_J=25^\circ\text{C}$
Typical junction capacitance	C_J	150pF	4.0 V, 1 MHz

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.
3. Thermal Resistance: Mounted on PCB with 0.2*0.2"(5*5mm) copper pads, 2 OZ,FR4 PCB.

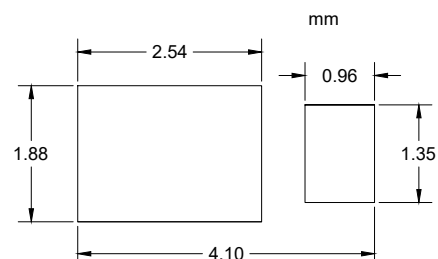
3 Amp Low VF Schottky Rectifier 30 Volts

SOD-123HE1



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.030	0.035	0.75	0.90	
B	0.033	0.041	0.85	1.05	
B1	0.033	0.041	0.85	1.05	
C	0.004	0.010	0.10	0.25	
D	0.075	0.083	1.90	2.10	
E	0.114	0.122	2.90	3.10	
L1	0.079	0.096	2.00	2.45	
L2	0.016	0.033	0.40	0.85	
L3	0.051	0.067	1.30	1.70	
HE	0.138	0.154	3.50	3.90	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 5 - Forward Current Derating Curve

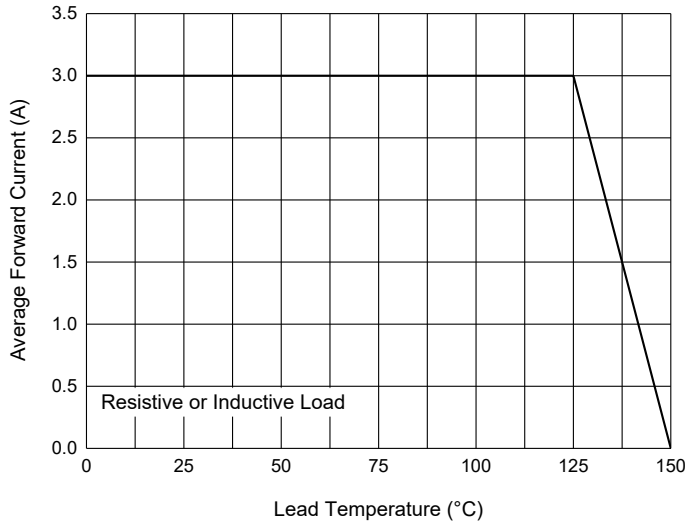


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

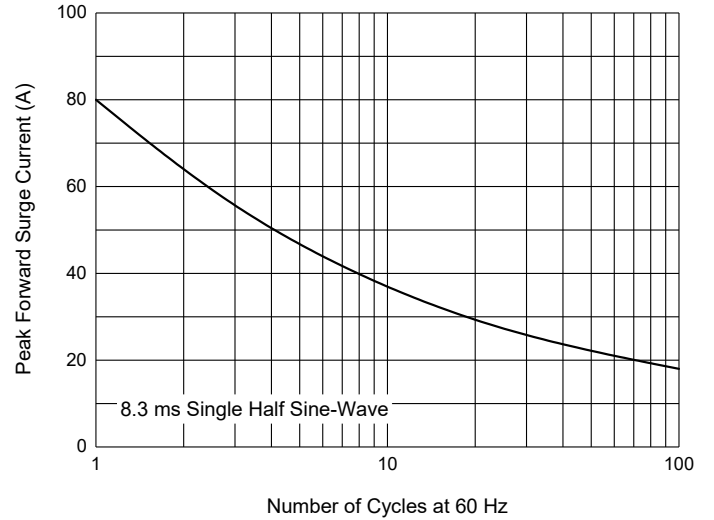


Fig. 3 - Typical Instantaneous Forward Characteristics

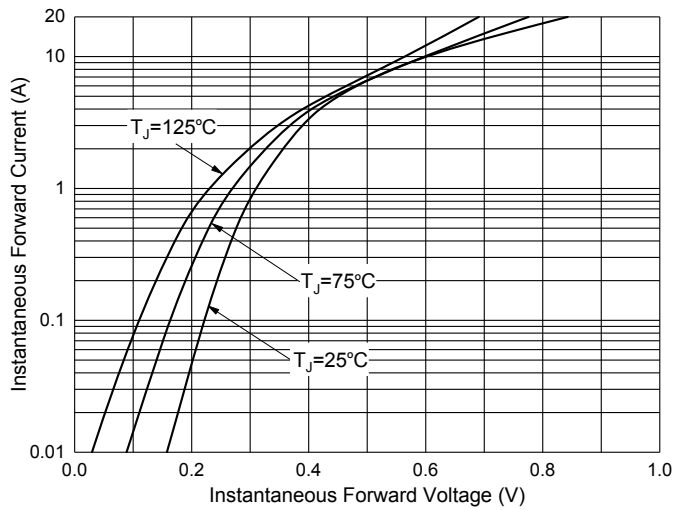


Fig. 4 - Typical Reverse Leakage Characteristics

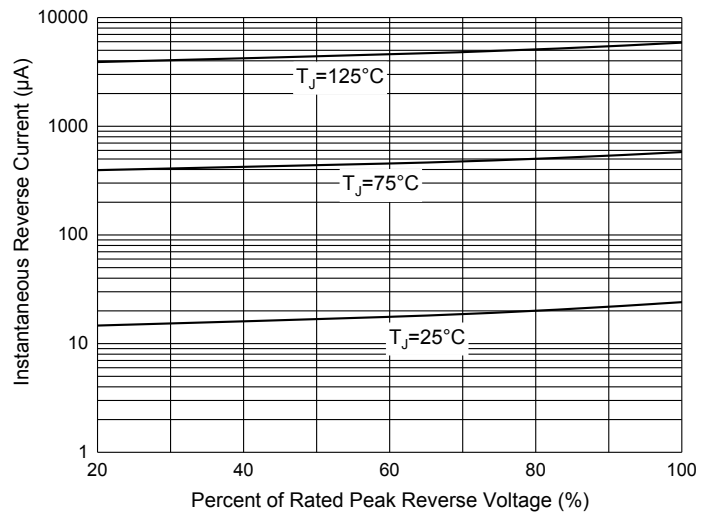
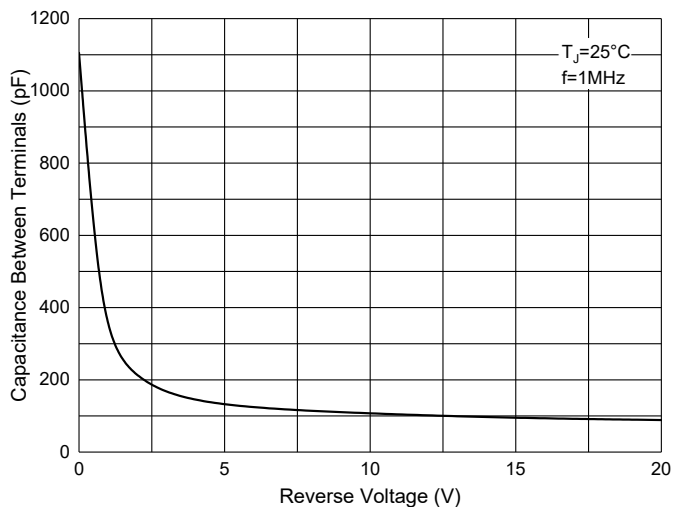


Fig. 5 - Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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