

### Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- High Current Capability
- Lead Free Finish/RoHS Compliant(Note 1) ("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<sup>(Note 2)</sup>
- Typical Thermal Resistance: 28°C/W Junction to Case<sup>(Note 2)</sup>
- Typical Thermal Resistance: 6°C/W Junction to Lead<sup>(Note 2)</sup>

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

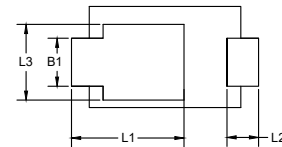
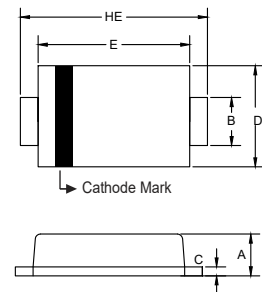
Average Forward Current	$I_{F(AV)}$	3.0A	$T_L = 125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.42V(Max) 0.38V(Typ)	$I_{FM}=3.0A;$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	120 $\mu$ A	$V_R=30V; T_J=25^\circ\text{C}$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

Note :

1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
2. Thermal Resistance: Mounted on PCB with 0.2\*0.2"(5\*5mm) copper pads, 2 OZ,FR4 PCB.

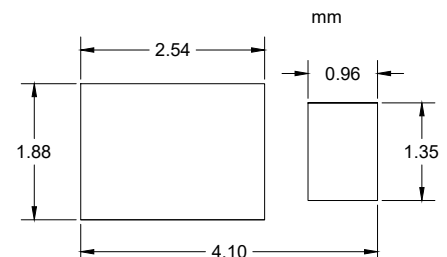
# 3 Amp Low VF Schottky Rectifier 30 Volts

## SOD-123HE1



DIM	INCHES		MM		NOTE
	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

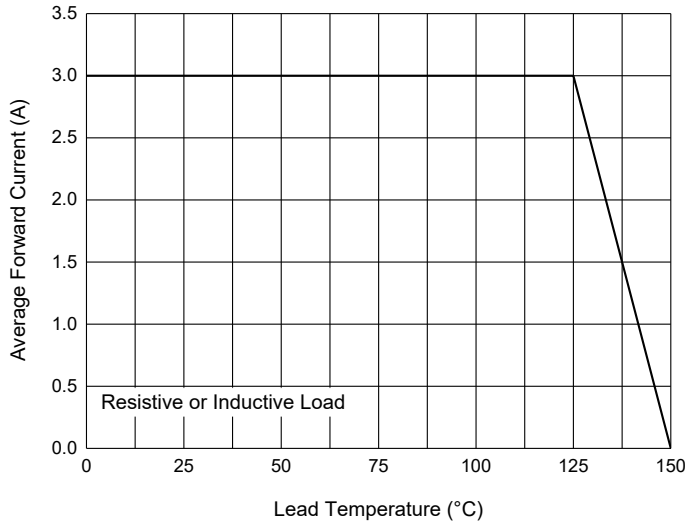


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

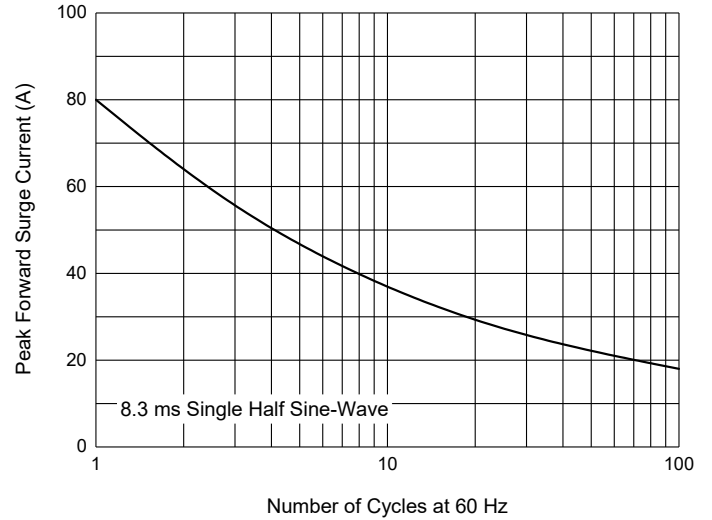


Fig. 3 - Typical Instantaneous Forward Characteristics

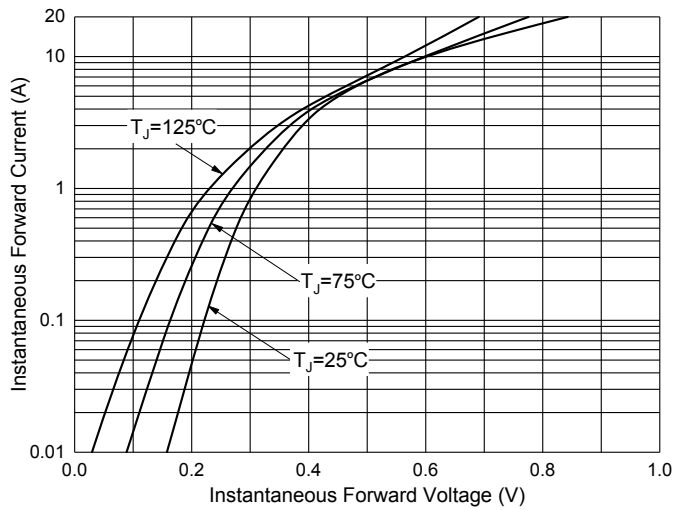


Fig. 4 - Typical Reverse Leakage Characteristics

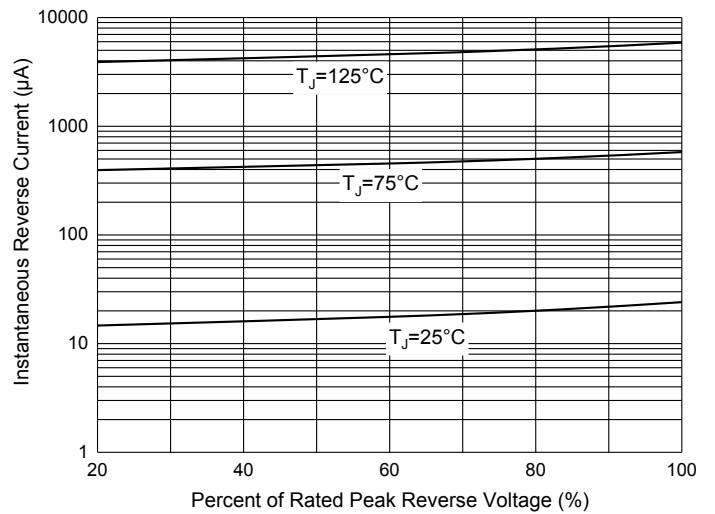
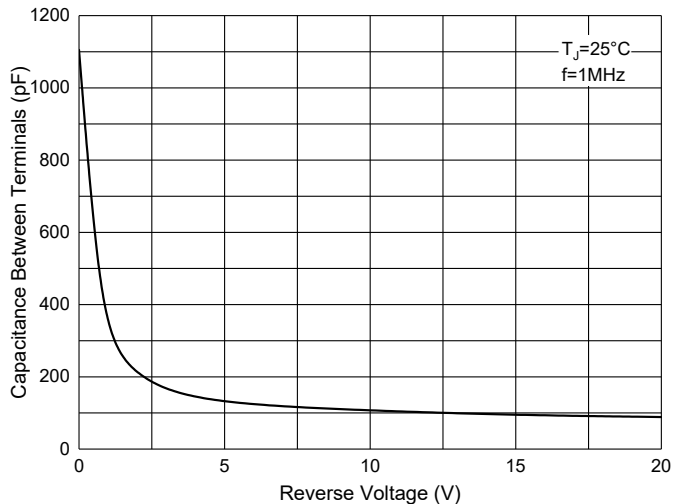


Fig. 5 - Capacitance Characteristics



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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