Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Low Leakage Current
- Glass Passivated Junction
- 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)

1.0 Amp Silicon Rectifier 50 to 1000 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range:-55°C to +150°C
- Typical Thermal Resistance: 50°C/W Junction to Ambient
- Typical Thermal Resistance: 28°C/W Junction to Case

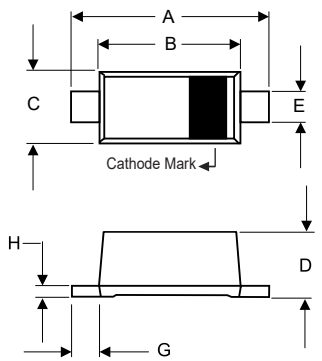
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SM4001PLHE3	A1	50V	35V	50V
SM4002PLHE3	A2	100V	70V	100V
SM4003PLHE3	A3	200V	140V	200V
SM4004PLHE3	A4	400V	280V	400V
SM4005PLHE3	A5	600V	420V	600V
SM4006PLHE3	A6	800V	560V	800V
SM4007PLHE3	A7	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_A=75ºC
Peak Forward Surge Current	I_{FSM}	30A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.1V	I_F=1.0A; T_A=25ºC
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1μA 50μA	T_A=25ºC; T_A=100ºC
Maximum Full Load Reverse Current Average ,Full Cycle 9.5mm Lead Length	I_R	30μA	T_L=75ºC;
Typical Junction Capacitance	C_J	10 pF	Measured at 1.0MHz, V_R=4.0V
Reverse Recovery Time	t_{rr}	1000ns Min 3000ns Max	I_F=0.5A,I_R=1.0A I_{RR}=0.25A

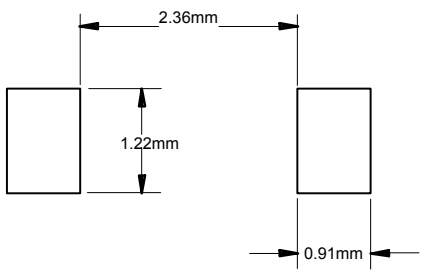
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.

SOD-123FL



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.130	0.152	3.30	3.85	
B	0.100	0.122	2.55	3.10	
C	0.055	0.075	1.40	1.90	
D	0.035	0.053	0.90	1.35	
E	0.020	0.041	0.50	1.05	
G	0.010	----	0.25	----	
H	----	0.010	----	0.25	

SUGGESTED SOLDER PAD LAYOUT



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Curve Characteristics

Fig. 1 - Forward Current Derating Curve

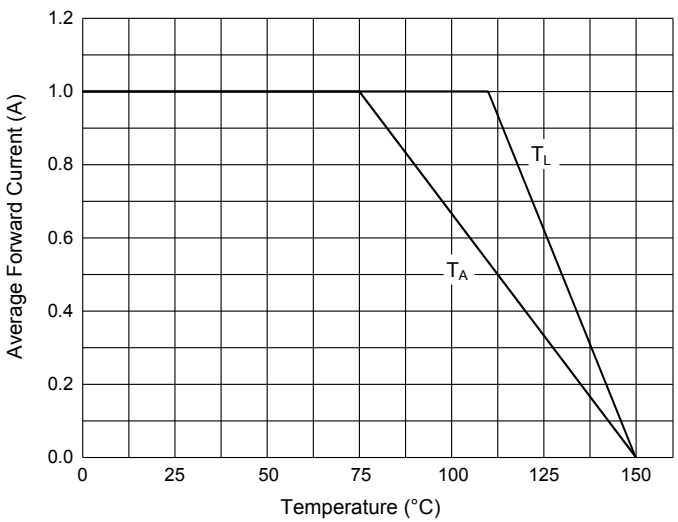


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

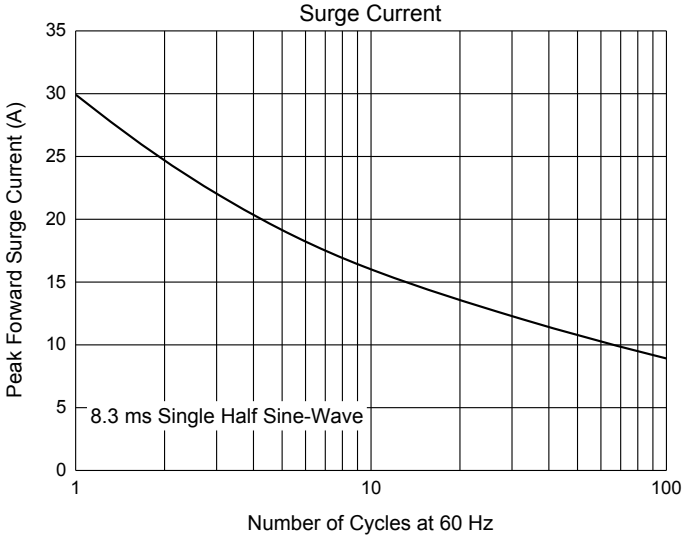


Fig. 3 - Typical Instantaneous Forward Characteristics

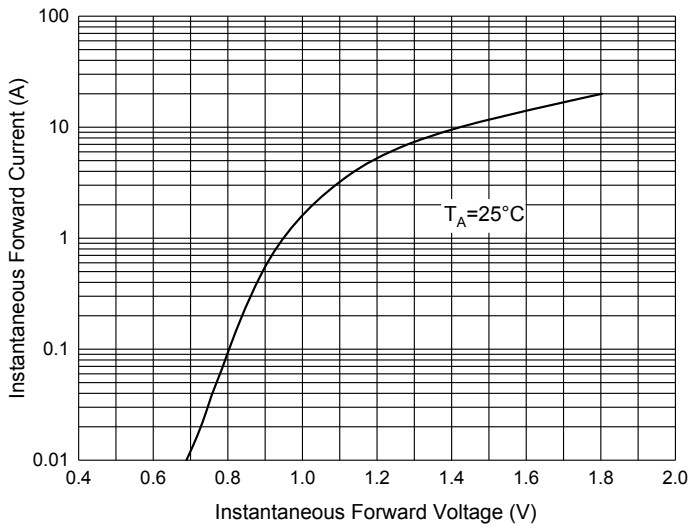


Fig. 4 - Typical Reverse Leakage Characteristics

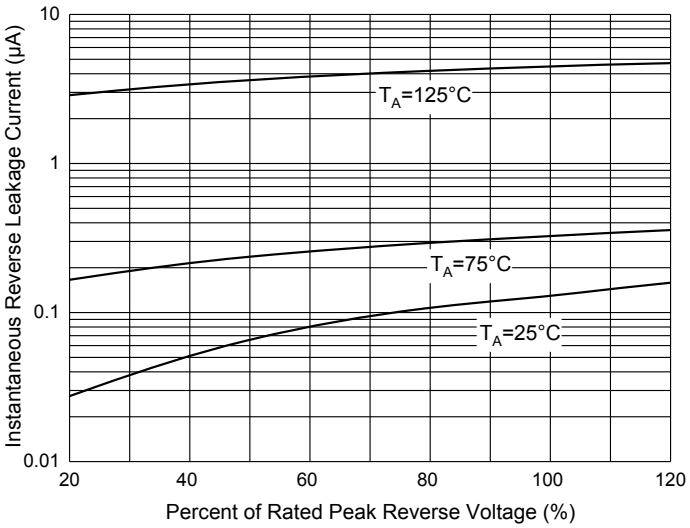
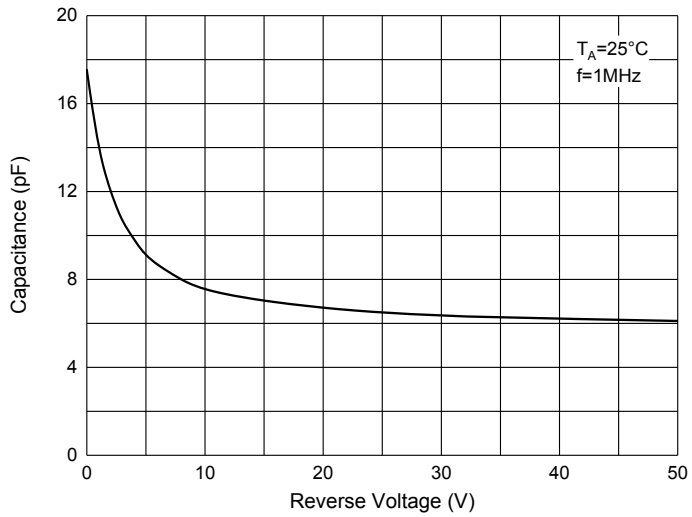


Fig. 5 - Typical Junction Capacitance



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Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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