

Features

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

Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Typical Thermal Resistance(Note 3): 60°C/W Junction to Ambient
- Typical Thermal Resistance(Note 3): 30°C/W Junction to Case
- Typical Thermal Resistance(Note 3): 21°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SMD2150PL	M15	150V	105V	150V
SMD220PL	M20	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	2.0A	$T_L=90^\circ\text{C}$
Surge Forward Current	I_{FSM}	50A	8.3ms, Half Sine
Peak Repetitive Forward Current	I_{FRM}	4.0A	Rated VR, Square Wave, 20 kHz, $T_C = 105^\circ\text{C}$
Power Dissipation	P_D	1.68W	
Forward Voltage	V_F	0.9V(Max)	$I_{FM}=2.0A; T_J=25^\circ\text{C}$
Maximum DC Reverse Current	I_R	0.01mA	$T_J=25^\circ\text{C}$
Typical Junction Capacitance	C_J	210pF(Typ)	$f=1.0\text{MHz}, V_R=4V$

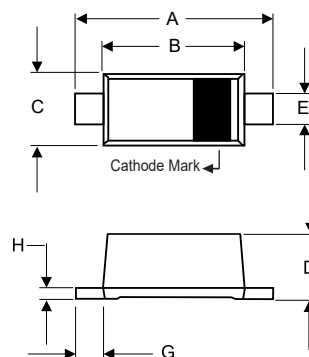
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

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

3. Thermal Resistance: PC Board Mounted on 0.2*0.2"(5*5mm) copper pad area.

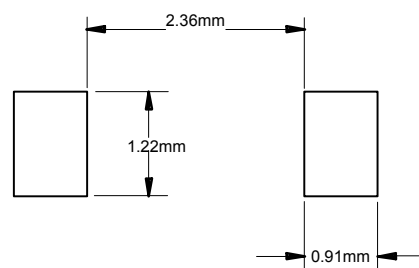
Schottky Barrier Diodes 150 to 200 Volts

SOD-123FL



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



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

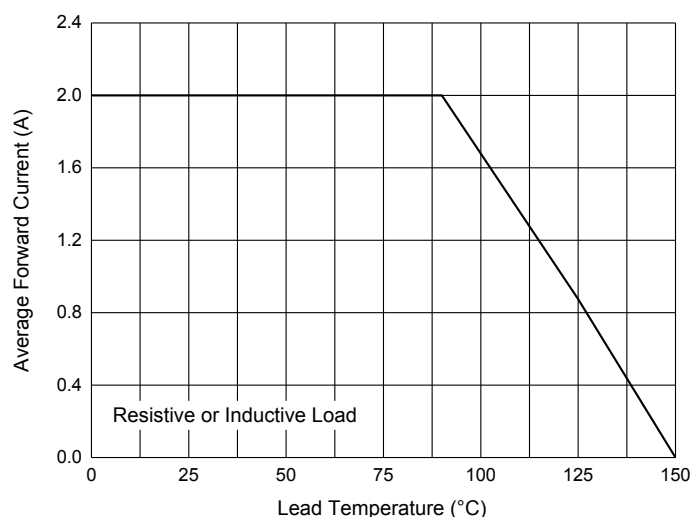


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

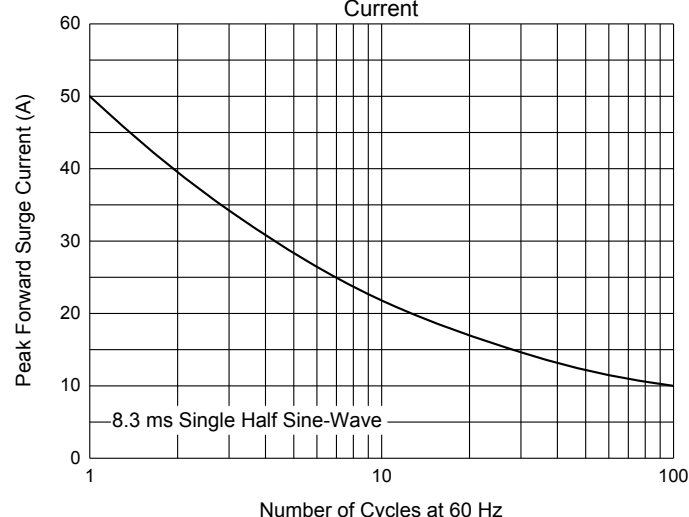


Fig. 3 - Typical Instantaneous Forward Characteristics

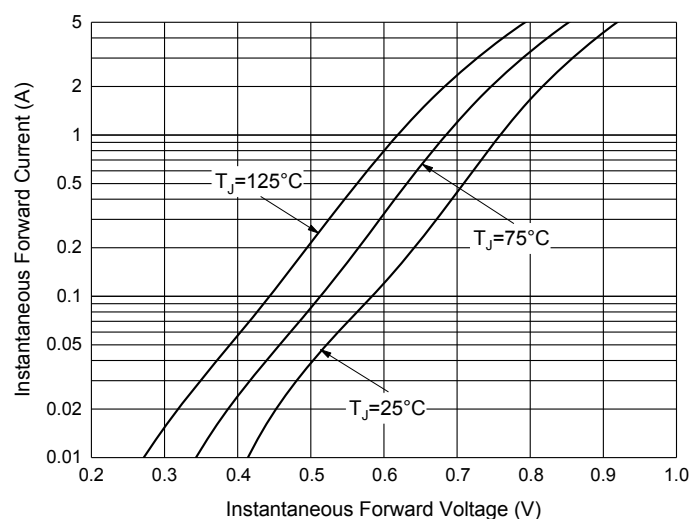
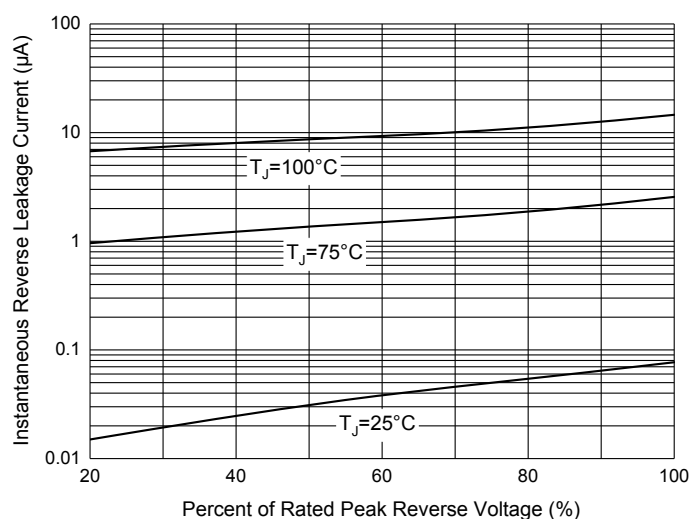


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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