

Features

- Halogen Free. "Green" Device (Note 1)
- Glass Passivated Chip Junction
- High Forward Surge Capability
- Lead Free Finish/RoHS Compliant (Note2) ("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: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 20°C/W Junction to Lead
- Typical Thermal Resistance: 70°C/W Junction to Ambient

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SM5391PL | G15A | 50V | 35V | 50V |
| SM5392PL | G15B | 100V | 70V | 100V |
| SM5393PL | G15D | 200V | 140V | 200V |
| SM5395PL | G15G | 400V | 280V | 400V |
| SM5397PL | G15J | 600V | 420V | 600V |
| SM5398PL | G15K | 800V | 560V | 800V |
| SM5399PL | G15M | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

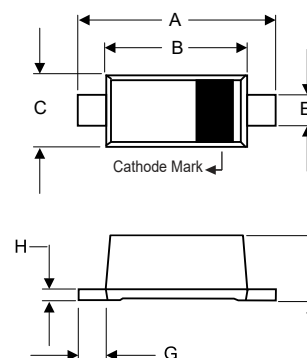
| | | | |
|---|-------------|--|--|
| Average Forward Current | $I_{F(AV)}$ | 1.5A | $T_A=75^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 50A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.1V | $I_{FM}=1.5A; T_J=25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5.0µA 100µA | $T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$ |
| Reverse Recovery Time | t_{rr} | 1.5µS(Min) 2.0µS(Typ) 4.0µS(Max) | $I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A$ |
| Typical Junction Capacitance | C_J | 11pF | Measured at 1.0MHz VR=4.0V |

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.

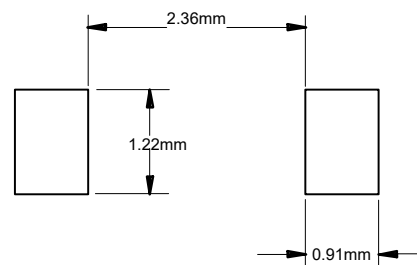
1.5 Amp Rectifier 50 to 1000 Volts

SOD-123FL



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|------|------|
| | INCHES | | MM | | |
| 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

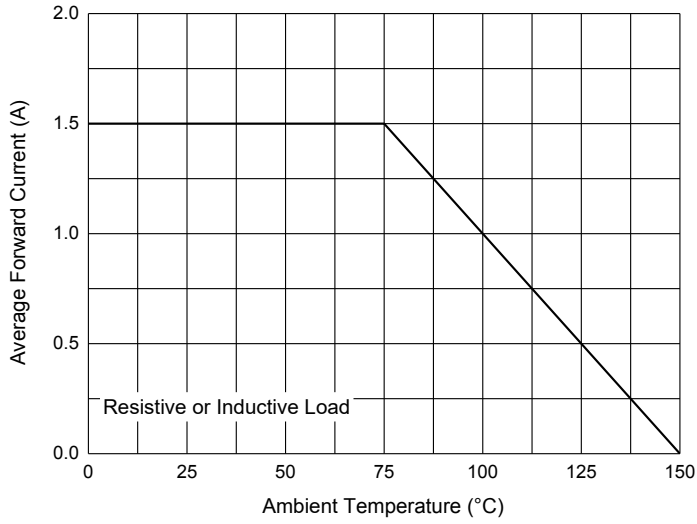


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

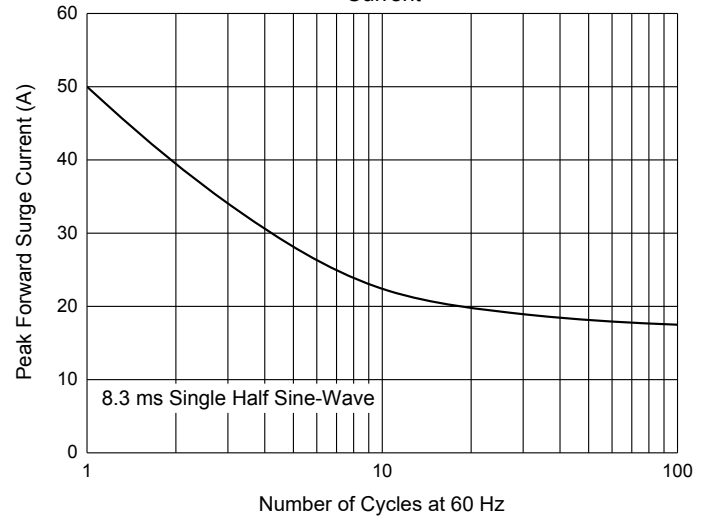


Fig. 3 - Typical Instantaneous Forward Characteristics

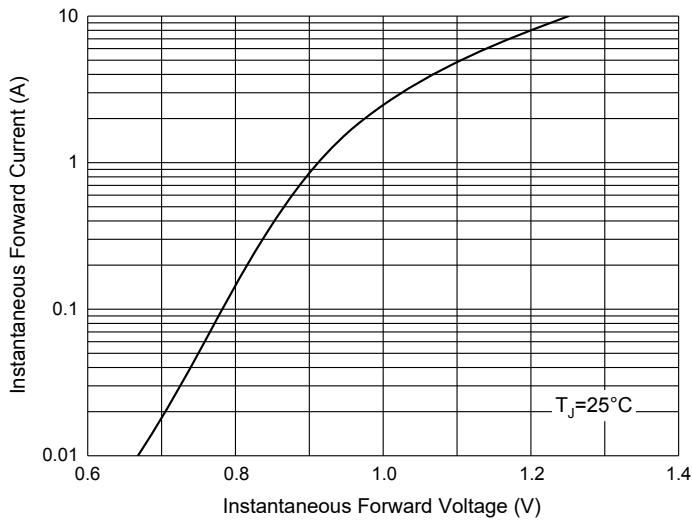
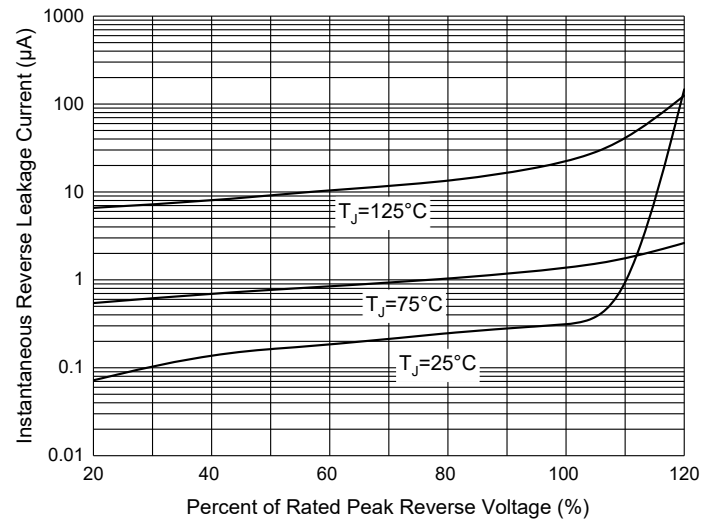


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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