



**THE DATASHEET OF
SMLJ60S1-TP**



Features

- Low Leakage
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- High Surge Current Capability
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Halogen Free. "Green" Device (Note 2)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 45°C/W Junction to Ambient
- Thermal Resistance: 12°C/W Junction to Lead

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| SMLJ60S05 | 60S05 | 50V | 35V | 50V |
| SMLJ60S1 | 60S1 | 100V | 70V | 100V |
| SMLJ60S2 | 60S2 | 200V | 140V | 200V |
| SMLJ60S4 | 60S4 | 400V | 280V | 400V |
| SMLJ60S6 | 60S6 | 600V | 420V | 600V |
| SMLJ60S8 | 60S8 | 800V | 560V | 800V |
| SMLJ60S10 | 60S10 | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|--------------------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 6.0A | $T_A=100^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 200A | 8.3ms, Half Sine |
| Maximum Instantaneous Forward Voltage | V_F | 1.0V | $I_F=6.0\text{A}; T_J=25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 5 μA 100 μA | $T_J=25^\circ\text{C}; T_J=100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 150pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

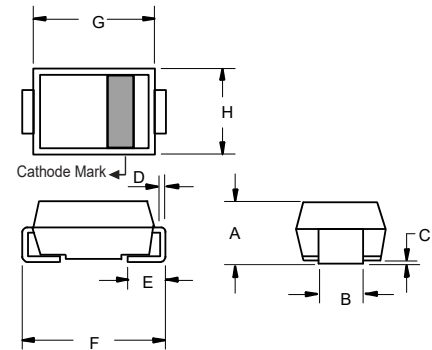
Note:

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

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

6 Amp Glass Passivated Rectifier 50 to 1000 Volts

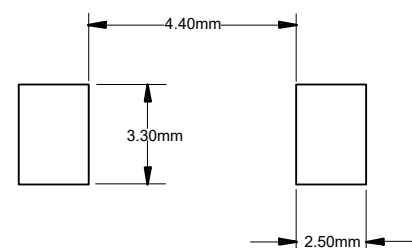
SMC (DO-214AB)



DIMENSIONS

| DIM | INCHES | | MM | | NOTE |
|-----|--------|-------|-------|-------|------|
| | MIN | MAX | MIN | MAX | |
| A | 0.079 | 0.103 | 2.00 | 2.62 | |
| B | 0.108 | 0.128 | 2.75 | 3.25 | |
| C | 0.002 | 0.008 | 0.051 | 0.203 | |
| D | 0.006 | 0.012 | 0.152 | 0.305 | |
| E | 0.030 | 0.060 | 0.76 | 1.52 | |
| F | 0.305 | 0.320 | 7.75 | 8.13 | |
| G | 0.260 | 0.280 | 6.60 | 7.11 | |
| H | 0.220 | 0.245 | 5.59 | 6.22 | |

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

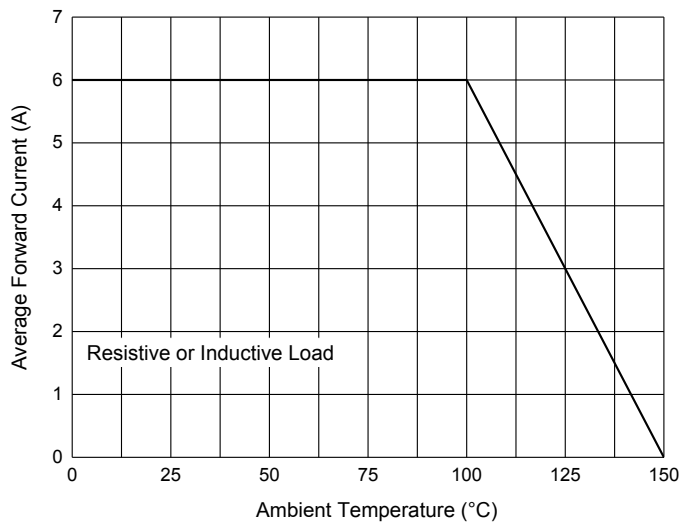


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

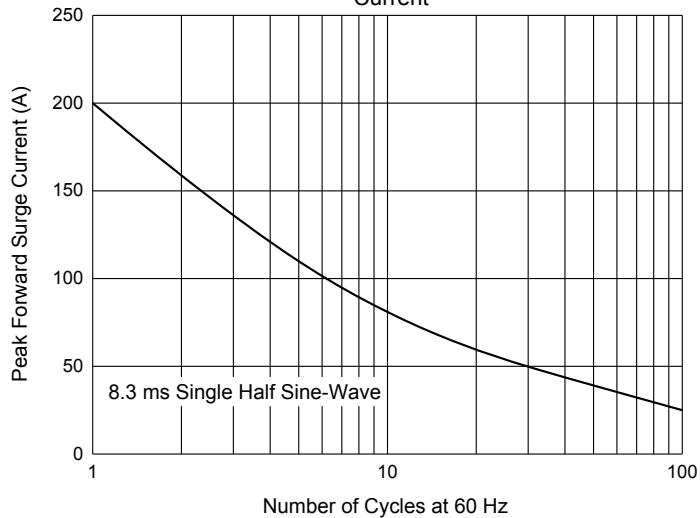


Fig. 3 - Typical Instantaneous Forward Characteristics

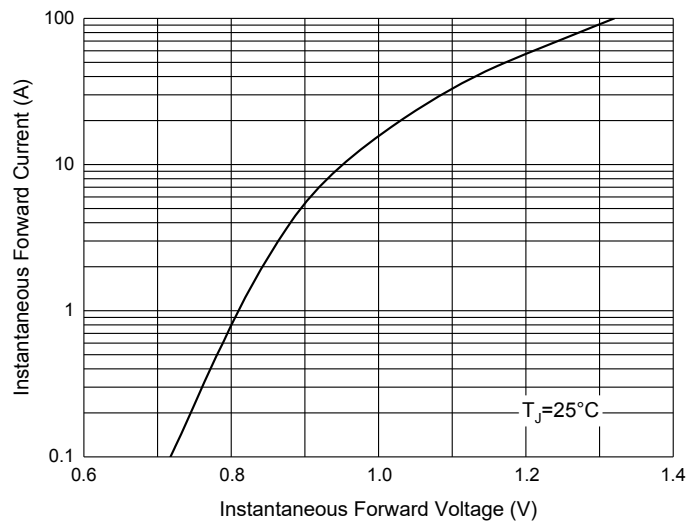
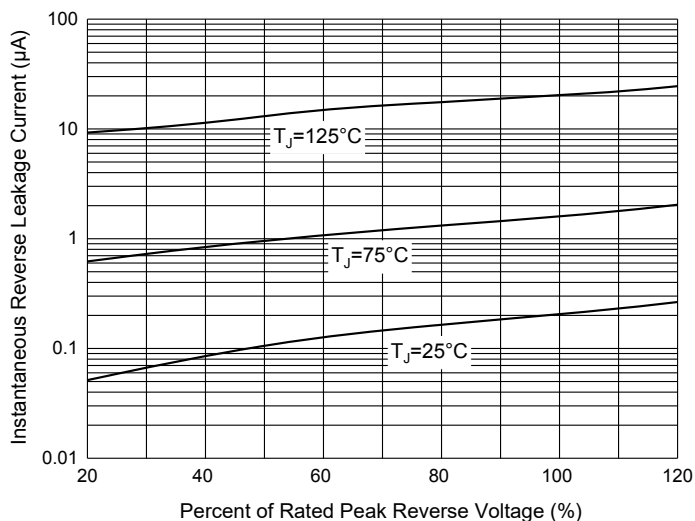


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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