

SMD15PL THRU SMD1200PL



1 Amp Schottky Rectifier

Features

- Schottky Barrier Rectifier
- High Current Capability
- Low Forward Voltage
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 28°C/W Junction To Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| SMD15PL | D5 | 50V | 35V | 50V |
| SMD16PL | D6 | 60V | 42V | 60V |
| SMD18PL | D8 | 80V | 56V | 80V |
| SMD110PL | D10 | 100V | 70V | 100V |
| SMD1150PL | D15 | 150V | 105V | 150V |
| SMD1200PL | D20 | 200V | 140V | 200V |

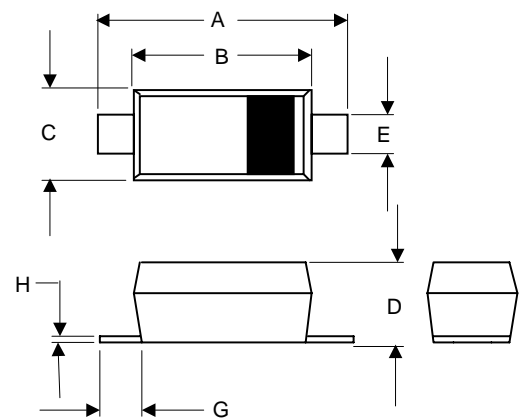
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|--|-------------|----------------------|--|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L = 90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 30A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage SMD15PL-16PL SMD18PL-1150PL SMD1200PL | V_F | .70V .85V .95V | $I_{FM} = 1.0\text{A};$ $T_J = 25^\circ\text{C}(\text{Note:2})$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5mA 20mA | $T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ |
| Typical Junction Capacitance SMD12PL -16PL SMD18PL-1150PL | C_J | 110pF 30pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

Note:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.
2.Pulse test: Pulse width 300 sec, Duty cycle 2%

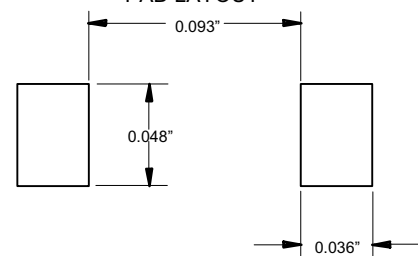
1 Amp Schottky Rectifier 50 to 200 Volts

SOD-123FL



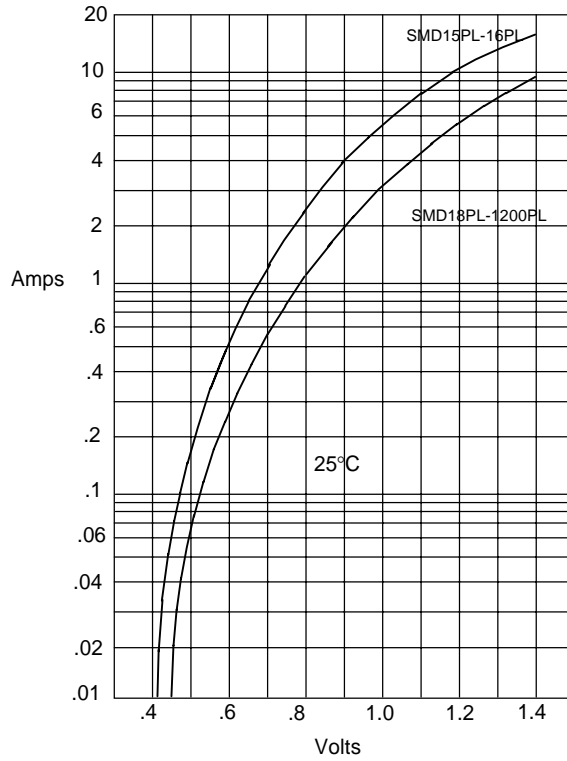
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|-------|------|-------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .140 | .152 | 3.55 | 3.85 | |
| B | .100 | .112 | 2.55 | 2.85 | |
| C | .055 | .071 | 1.40 | 1.80 | |
| D | .037 | .053 | 0.95 | 1.35 | |
| E | .020 | .039 | 0.50 | 1.00 | |
| G | .010 | ----- | 0.25 | ----- | |
| H | ----- | .008 | ---- | .20 | |

SUGGESTED SOLDER PAD LAYOUT



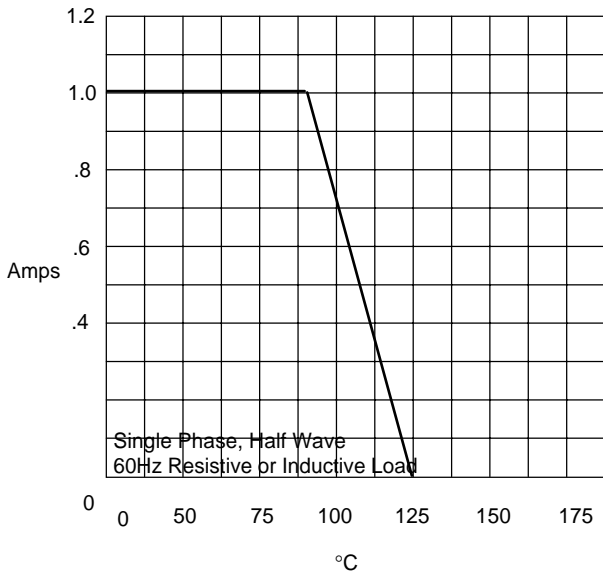
SMD15PL thru SMD1200PL

Figure 1
Typical Forward Characteristics



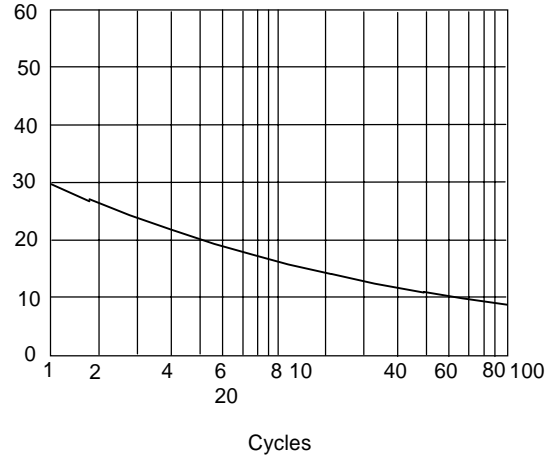
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*
Lead Temperature - °C

Figure 3
Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles