

Features

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- Reverse Energy Tested
- High Current Capability
- Extremely Low Thermal Resistance

Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 15°C/W Junction To Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| SK22 | SK22 | 20V | 14V | 20V |
| SK23 | SK23 | 30V | 21V | 30V |
| SK24 | SK24 | 40V | 28V | 40V |
| SK25 | SK25 | 50V | 35V | 50V |
| SK26 | SK26 | 60V | 42V | 60V |
| SK28 | SK28 | 80V | 56V | 80V |
| SK210 | SK210 | 100V | 70V | 100V |

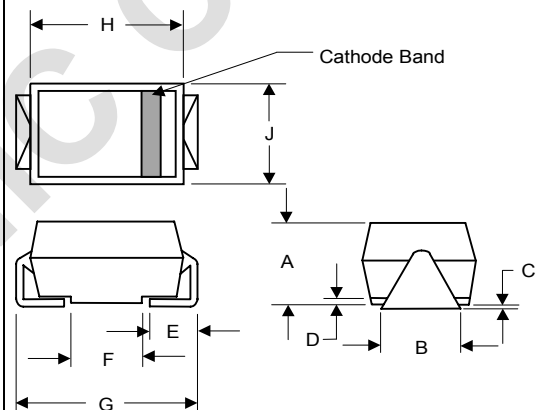
Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-------------|----------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 2.0A | $T_J = 90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 50A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage | V_F | .55V .70V .85V | $I_{FM} = 2.0\text{A};$ $T_J = 25^\circ\text{C}^*$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5 mA | $T_J = 25^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 230pF 50pF | Measured at 1.0MHz, $V_R=4.0\text{V}$ |

*Pulse test: Pulse width 300 μsec , Duty cycle 2%

2 Amp Schottky Rectifier 20 to 100 Volts

DO-214AA (SMBJ) (Round Lead)



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| | MIN | MAX | MIN | MAX | |
| A | .078 | .116 | 1.98 | 2.95 | |
| B | .075 | .089 | 1.90 | 2.25 | |
| C | .002 | .008 | .05 | .20 | |
| D | --- | .02 | --- | .51 | |
| E | .035 | .055 | .90 | 1.40 | |
| F | .065 | .091 | 1.65 | 2.32 | |
| G | .205 | .224 | 5.21 | 5.69 | |
| H | .160 | .180 | 4.06 | 4.57 | |
| J | .130 | .155 | 3.30 | 3.94 | |

SUGGESTED SOLDER PAD LAYOUT

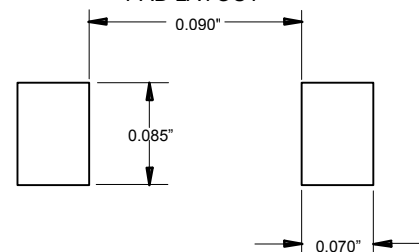
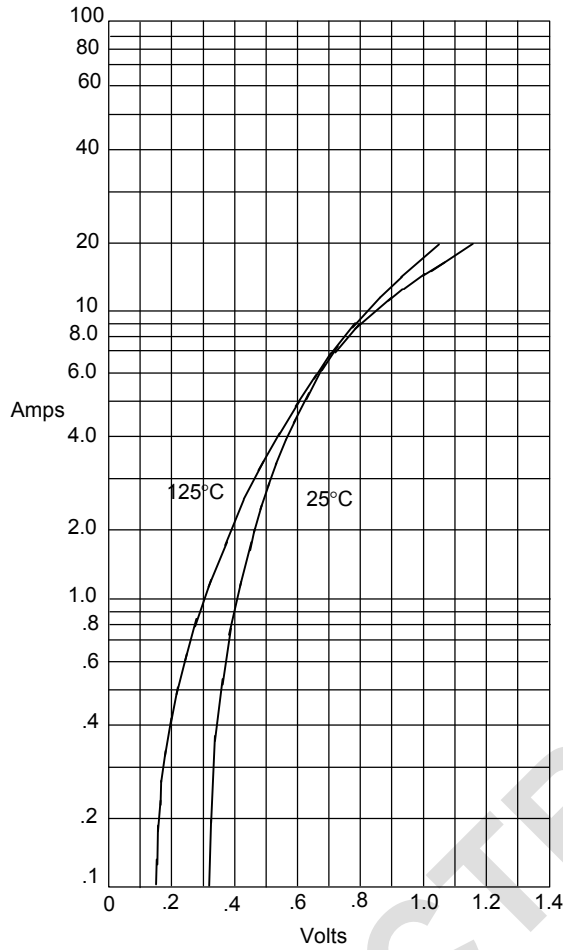
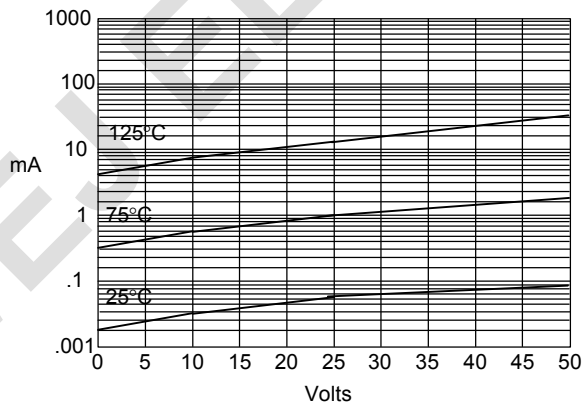


Figure 1
Typical Forward Characteristics



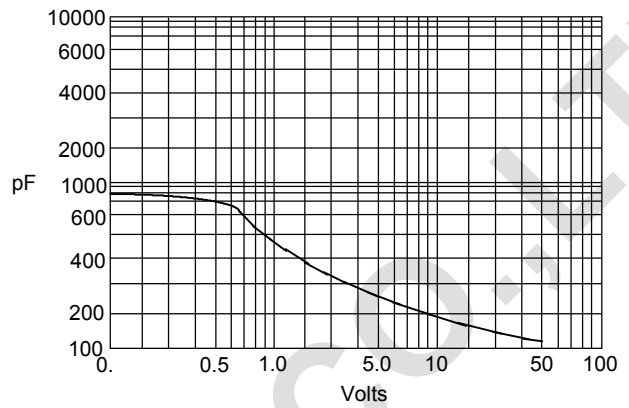
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



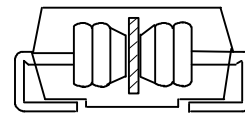
Typical Reverse Current - mA versus
Reverse Voltage - Volts

Figure 3
Typical Junction Capacitance



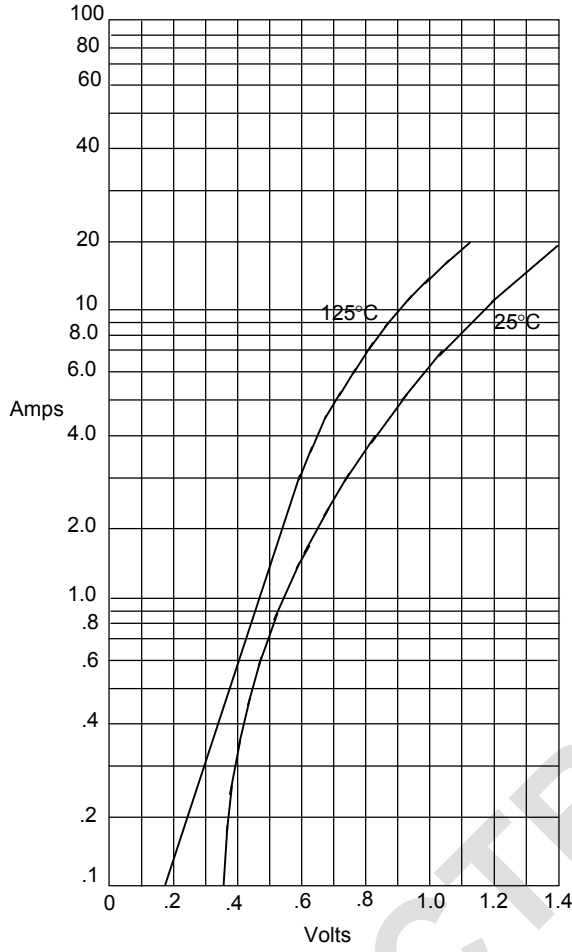
Junction Capacitance - pF versus
Reverse Voltage - Volts

Figure 4
New SMB Assembly



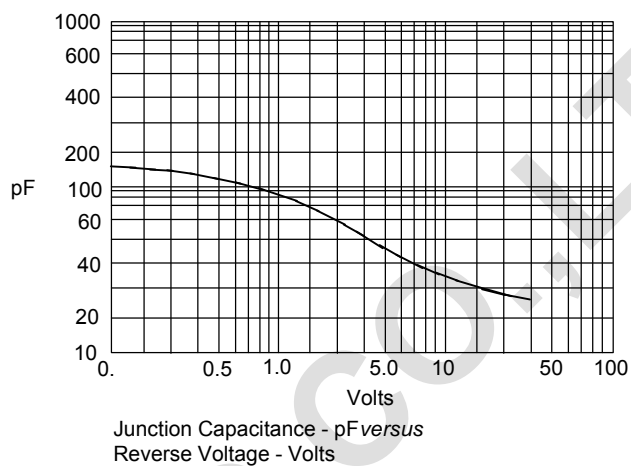
Round Lead
Process

Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 3
Typical Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

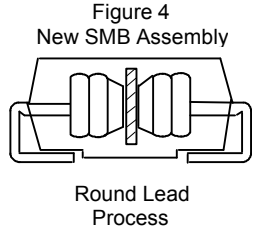
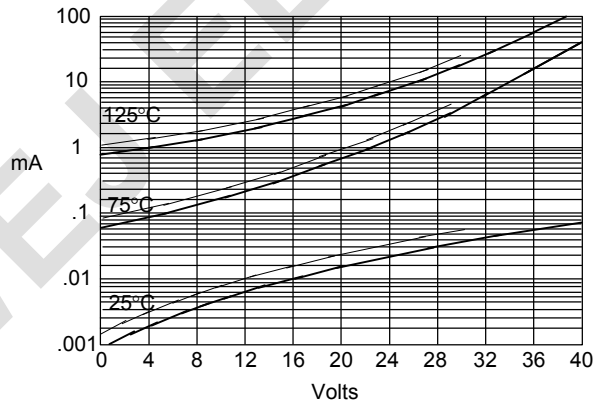


Figure 4
New SMB Assembly

Round Lead
Process

Figure 2
Typical Reverse Characteristics



Typical Reverse Current - mA versus
Reverse Voltage - Volts