Micro Commercial Components
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# SK12-L THRU SK110-L

## 1 Amp Schottky Rectifier 20 to 100 Volts

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material:Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Reverse Energy Tested and Guard Ring Protection
- High Current Capability and Low Forward Voltage
- 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 |
|---|---|---|---|---|
| SK12-L | SK12 | 20V | 14V | 20V |
| SK13-L | SK13 | 30V | 21V | 30V |
| SK14-L | SK14 | 40V | 28V | 40V |
| SK15-L | SK15 | 50V | 35V | 50V |
| SK16-L | SK16 | 60V | 42V | 60V |
| SK18-L | SK18 | 80V | 56V | 80V |
| SK110-L | SK110 | 100V | 70V | 100V |

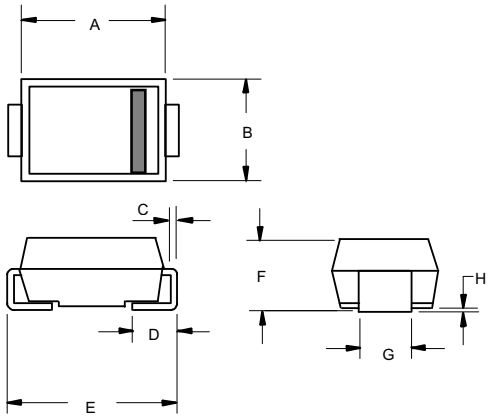
## Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|---|---|---|
| Average Forward Current | $I_{F(AV)}$ | 1.0A | $T_L$ = 75°C |
| Peak Forward Surge Current | $I_{FSM}$ | 30A | 8.3ms, half sine |
| Maximum Instantaneous Forward Voltage<br>SK12~14<br>SK15~16<br>SK18~110 | $V_F$ | <br>.50V<br>.72V<br>.85V | <br>$I_{FM}$ = 1.0A;<br>$T_J$ = 25°C |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$ | .5mA<br>20mA | $T_J$ = 25°C<br>$T_J$ = 100°C |
| Typical Junction Capacitance<br>SK12<br>SK13~110 | $C_J$ | <br>110pF<br>30pF | <br>Measured at 1.0MHz, $V_R$=4.0V |

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

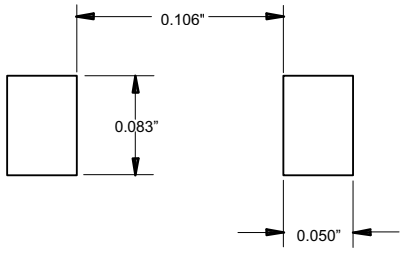
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

## DO-214AA (SMB) (LEAD FRAME)




| DIMENSIONS | | | | | |
|---|---|---|---|---|---|
| | INCHES | | MM | | |
| DIM | MIN | MAX | MIN | MAX | NOTE |
| A | .160 | .185 | 4.06 | 4.70 | |
| B | .130 | .155 | 3.30 | 3.94 | |
| C | .006 | .012 | 0.15 | 0.31 | |
| D | .030 | .060 | 0.76 | 1.52 | |
| E | .200 | .220 | 5.08 | 5.59 | |
| F | .079 | .096 | 2.00 | 2.44 | |
| G | .075 | .087 | 1.91 | 2.21 | |
| H | .002 | .008 | 0.05 | 0.203 | |

SUGGESTED SOLDER PAD LAYOUT



# SK12-L thru SK110-L

## Rating and Characteristic Curves

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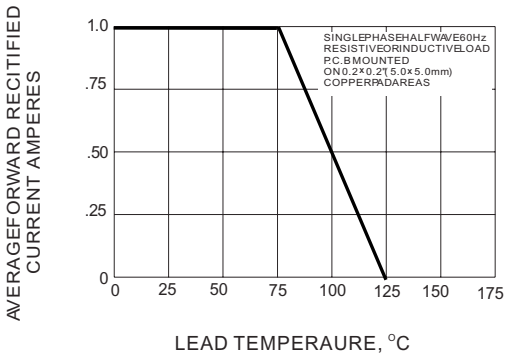


Figure 1. -- Forward current derating curve

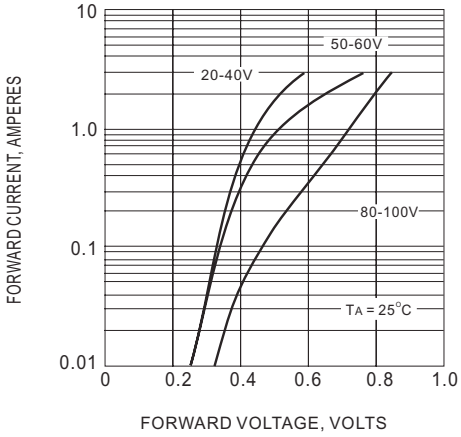


Figure 2. -- Typical Instantaneous Forward Characteristic

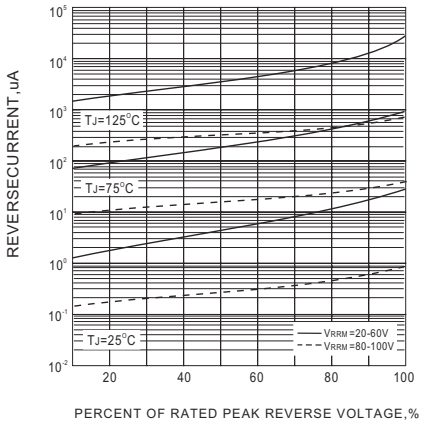


Figure 3. --Typical Reverse Characteristics

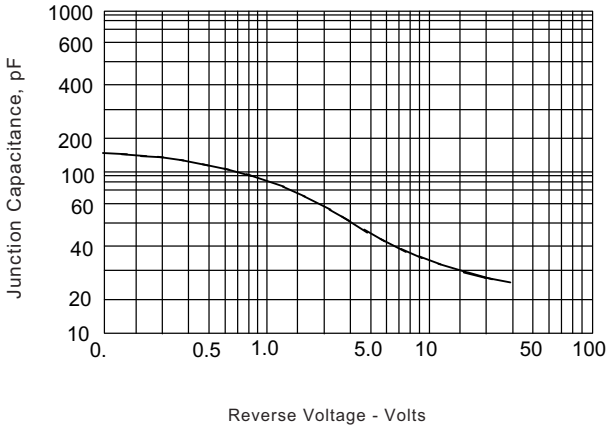


Figure 4. -- Typical Junction Capacitance

## Ordering Information

| Device | Packing |
|---|---|
| (Part Number)TP | Tape&Reel;3Kpcs/Reel |