

# SK12-L THRU SK110-L

## Features

- 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
- Reverse Energy Tested and Guard Ring Protection
- High Current Capability and Low Forward Voltage
- Extremely Low Thermal Resistance
- Halogen free available upon request by adding suffix "-HF"

## 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

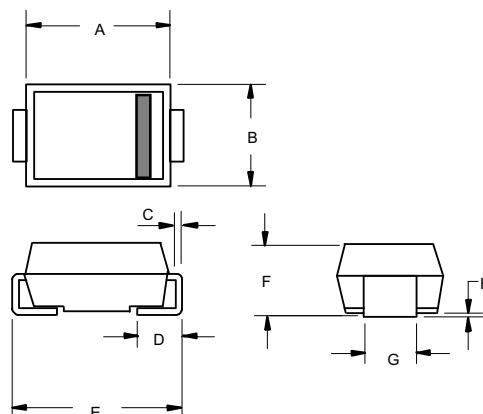
|                                                                         |             |                      |                                                       |
|-------------------------------------------------------------------------|-------------|----------------------|-------------------------------------------------------|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

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

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

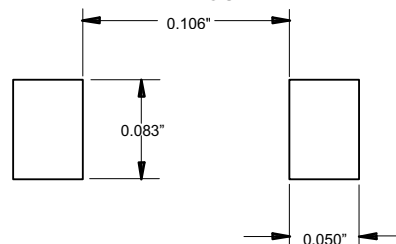
## 1 Amp Schottky Rectifier 20 to 100 Volts

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



| DIMENSIONS |        |      |      |       |      |
|------------|--------|------|------|-------|------|
| DIM        | INCHES |      | MM   |       | NOTE |
|            | MIN    | MAX  | MIN  | MAX   |      |
| 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

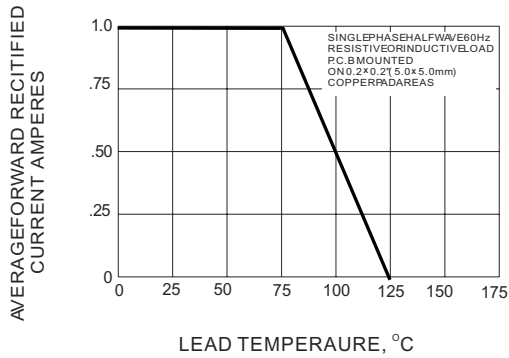


Figure 1. -- Forward current derating curve

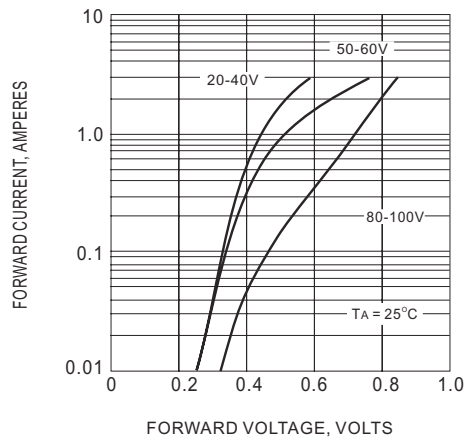


Figure 2. -- Typical Instantaneous Forward Characteristic

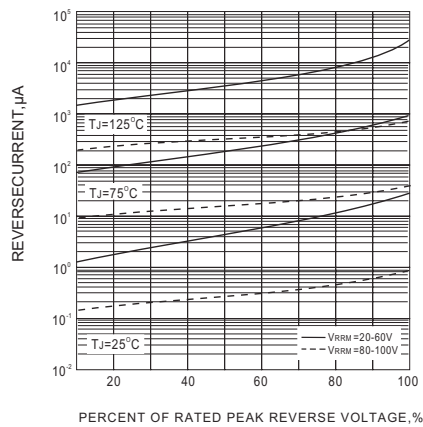


Figure 3. -- Typical Reverse Characteristics

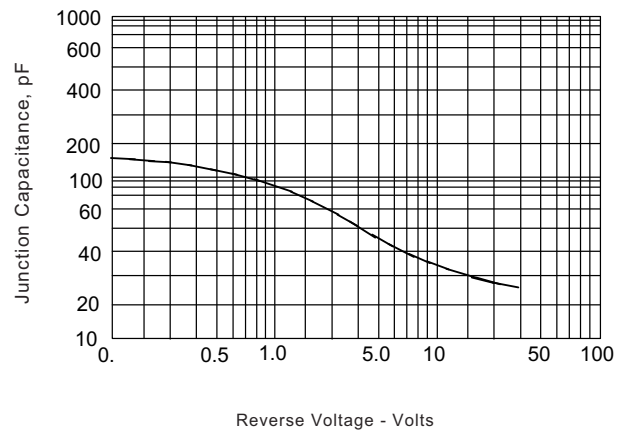


Figure 4. -- Typical Junction Capacitance

## Ordering Information :

| Device             | Packing               |
|--------------------|-----------------------|
| SK12-LTP~SK110-LTP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. SK12-LTP-HF~SK110-LTP-HF

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