



Micro Commercial Components



Micro Commercial Components  
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# SK32 THRU SK310

## 3 Amp Schottky Rectifier 20 to 100 Volts

### Features

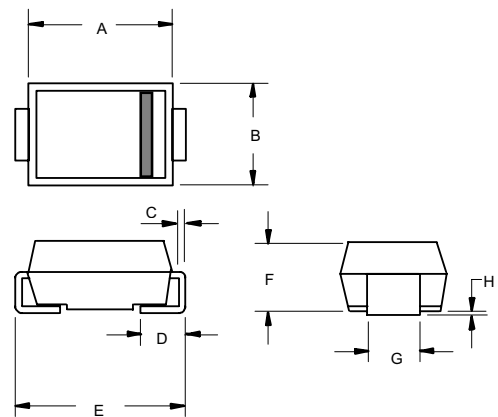
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"
- High Current Capability With Low Forward Voltage
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance :20°C/W Junction To Case
- Maximum Thermal Resistance :10°C/W Junction To Lead
- Maximum Thermal Resistance :55°C/W Junction To Ambient

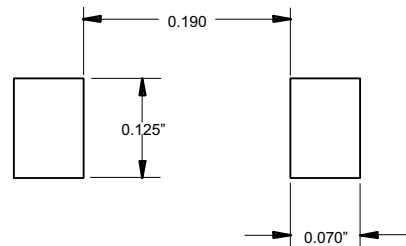
| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| SK32               | SK32           | 20V                                    | 14V                 | 20V                         |
| SK33               | SK33           | 30V                                    | 21V                 | 30V                         |
| SK34               | SK34           | 40V                                    | 28V                 | 40V                         |
| SK35               | SK35           | 50V                                    | 35V                 | 50V                         |
| SK36               | SK36           | 60V                                    | 42V                 | 60V                         |
| SK38               | SK38           | 80V                                    | 56V                 | 80V                         |
| SK310              | SK310          | 100V                                   | 70V                 | 100V                        |

### DO-214AB (SMC) (LEAD FRAME)



| DIM | DIMENSIONS |      |       |       | NOTE |
|-----|------------|------|-------|-------|------|
|     | INCHES     |      | MM    |       |      |
|     | MIN        | MAX  | MIN   | MAX   |      |
| A   | .260       | .280 | 6.60  | 7.11  |      |
| B   | .220       | .245 | 5.59  | 6.22  |      |
| C   | .006       | .012 | 0.15  | 0.31  |      |
| D   | .030       | .060 | 0.76  | 1.52  |      |
| E   | .305       | .320 | 7.75  | 8.13  |      |
| F   | .079       | .103 | 2.00  | 2.62  |      |
| G   | .108       | .128 | 2.75  | 3.25  |      |
| H   | .002       | .008 | 0.050 | 0.203 |      |

### SUGGESTED SOLDER PAD LAYOUT



### Electrical Characteristics @ 25°C Unless Otherwise Specified

|   |             |                      |   |
|---|-------------|----------------------|---|
| Average Forward Current                                 | $I_{F(AV)}$ | 3.0A                 | $T_L = 100^\circ\text{C}$                             |
| Peak Forward Surge Current                              | $I_{FSM}$   | 100A                 | 8.3ms, half sine                                      |
| Maximum Instantaneous Forward Voltage                   | $V_F$       | .50V<br>.75V<br>.85V | $I_{FM} = 3.0A;$<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                            | $C_J$       | 250pF                | Measured at 1.0MHz, $V_R=4.0V$                        |

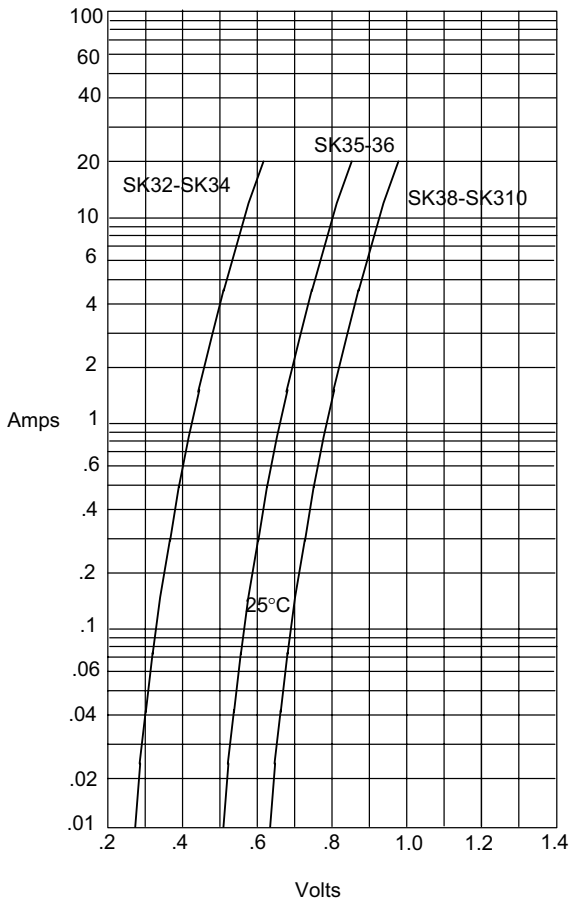
\*Pulse test: Pulse width 200  $\mu\text{sec}$ , Duty cycle 2%

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

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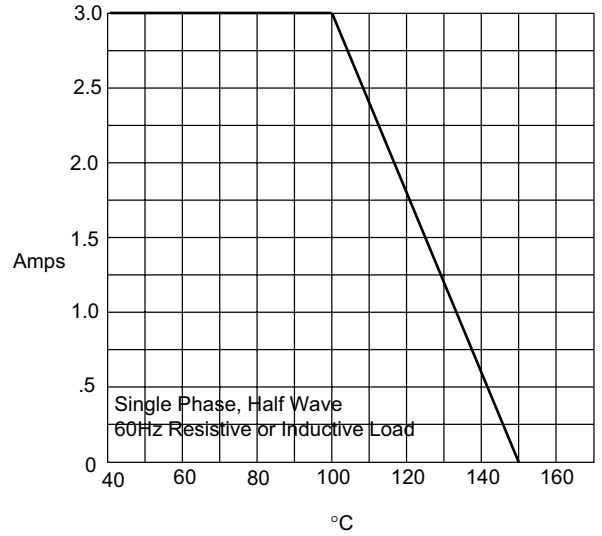
# SK32 thru SK310

Figure 1  
Typical Forward Characteristics



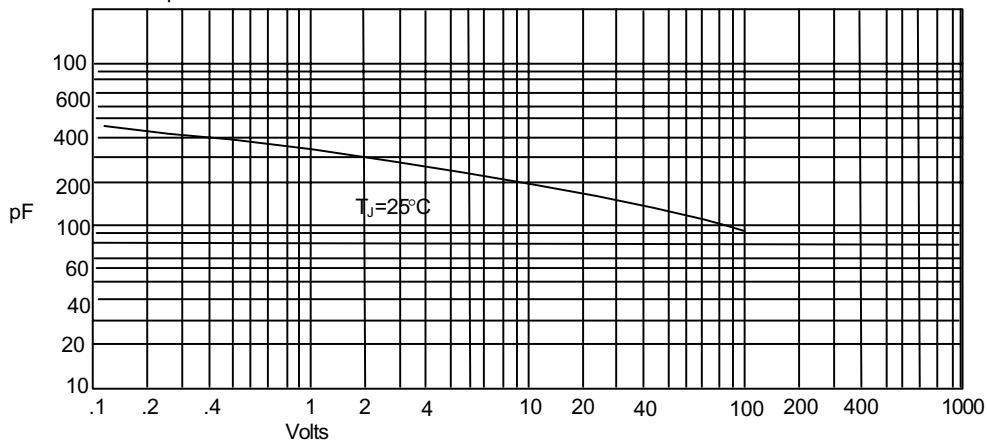
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

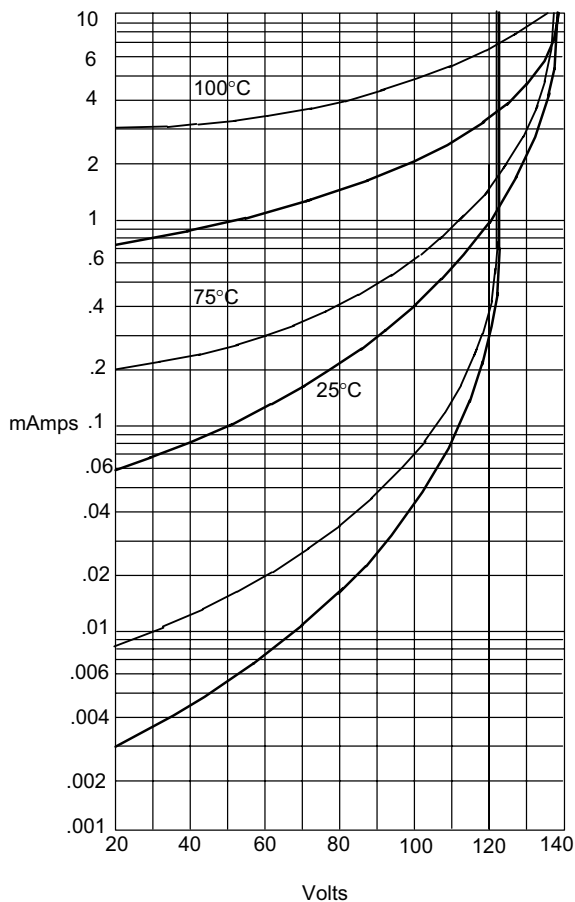
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

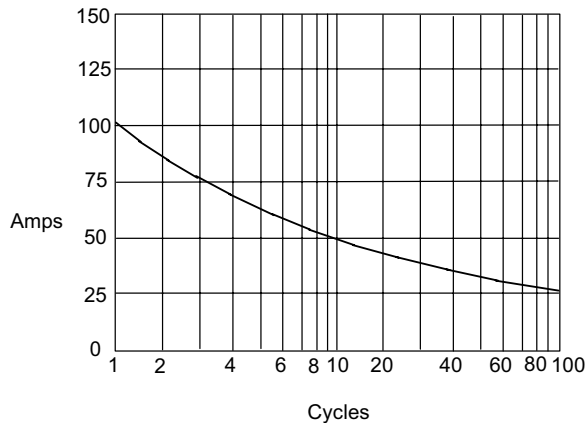
# SK32 thru SK310

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

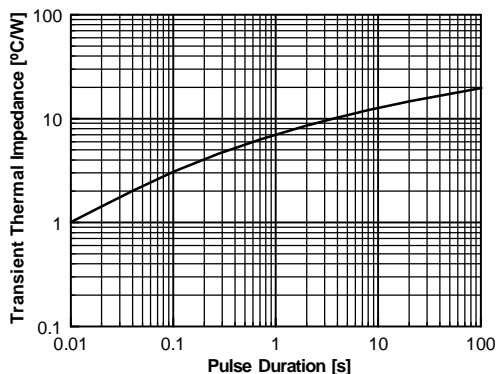
Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

|          |           |
|----------|-----------|
| SK32-34  | —————     |
| SK35-310 | - - - - - |

Figure 6  
Thermal Impedance Characteristics





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## Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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