

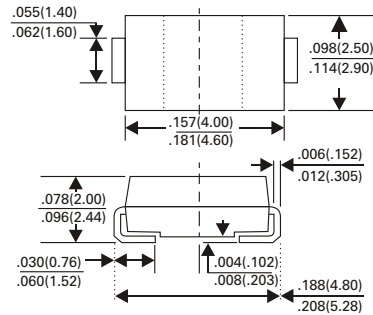
# SK32 thru SK310

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE - 20 TO 100 VOLTS CURRENT - 3.0 AMPERES



SMA/DO-214AC



Dimensions in inches and (millimeters)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94v-0
- For surface mount applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- High current capacity Low VF
- For use in low Voltage high frequency inverters, free wheeling and polarity protection applications.
- Pb free product at available : 99% Sn above meet Rohs Environment substance directive request

### MECHANICAL DATA

Case : JEDEC DO-214AC molded plastic  
 Terminals : Solder plated, solderable per MIL-STD-750, method 2026  
 Polarity : Color band denotes cathode end (cathode)  
 Standard Package : 12mm tape (EIA STD EIA-481)  
 Weight : 0.002 ounce, 0.064gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified  
 Resistive or inductive load

|  | SYMBOL          | SK32        | SK33 | SK34 | SK35 | SK36 | SK38 | SK39 | SK310 | UNITS           |
|--|-----------------|-------------|------|------|------|------|------|------|-------|-----------------|
| Maximum Repetitive Peak Reverse Voltage  | $V_{RRM}$       | 20          | 30   | 40   | 50   | 60   | 80   | 90   | 100   | Volts           |
| Maximum RMS Voltage  | $V_{RMS}$       | 14          | 21   | 28   | 35   | 42   | 56   | 63   | 70    | Volts           |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 20          | 30   | 40   | 50   | 60   | 80   | 90   | 100   | Volts           |
| Maximum Average Forward Rectified Current at $T_L$ (Figure 1)  | $I_{(AV)}$      | 3.0         |      |      |      |      |      |      |       | Amps            |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)         | $I_{FSM}$       | 100         |      |      |      |      |      |      |       | Amps            |
| Maximum Instantaneous Forward Voltage at 3.0A  | $V_F$           | 0.55        |      | 0.7  |      | 0.85 |      |      | Volts |                 |
| Maximum DC Reverse Current (NOTE 1) $T_A=25^{\circ}C$<br>at Rated DC Blocking Voltage $T_A=100^{\circ}C$ | $I_R$           |             |      |      |      | 0.5  |      |      |       | mA              |
| Maximum Thermal Resistance (NOTE 2)  | $R_{\theta JA}$ |             |      |      |      | 20   |      |      |       | $^{\circ}C / W$ |
|  | $R_{\theta JL}$ |             |      |      |      | 75   |      |      |       |                 |
| Operating Junction Temperature Range   | $T_J$           | -50 to +125 |      |      |      |      |      |      |       | $^{\circ}C$     |
| Storage and Operating Temperature Range  | $T_{STG}$       | -50 to +150 |      |      |      |      |      |      |       | $^{\circ}C$     |

NOTES :

1. Pulse test with 300  $\mu$ s pulse width, 1% duty cycle
2. Mounted on P.C.B Board with 8mm<sup>2</sup> (0.13mm thick) copper pad areas

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### RATING AND CHARACTERISTICS CURVES SK32 THRU SK310

FIG.1 - FORWARD CURRENT DERATING CURVE

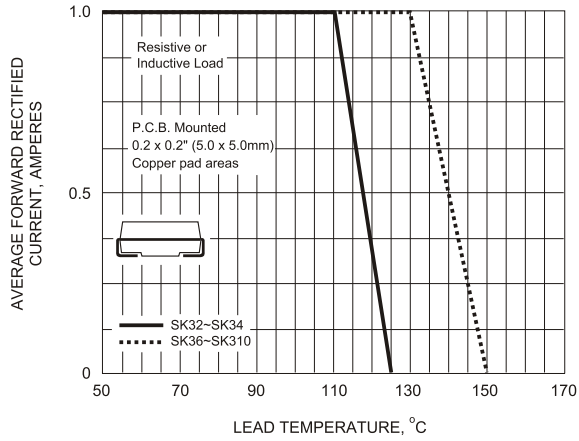


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

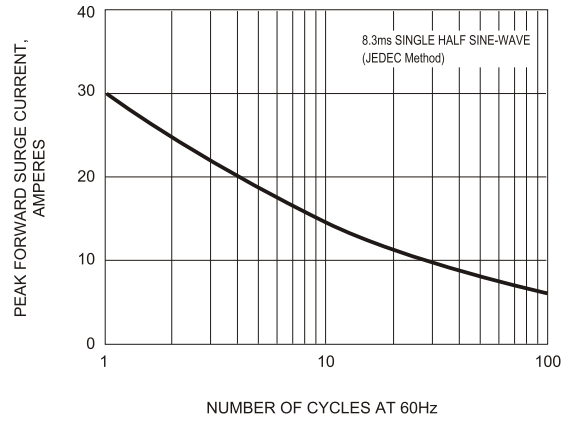


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

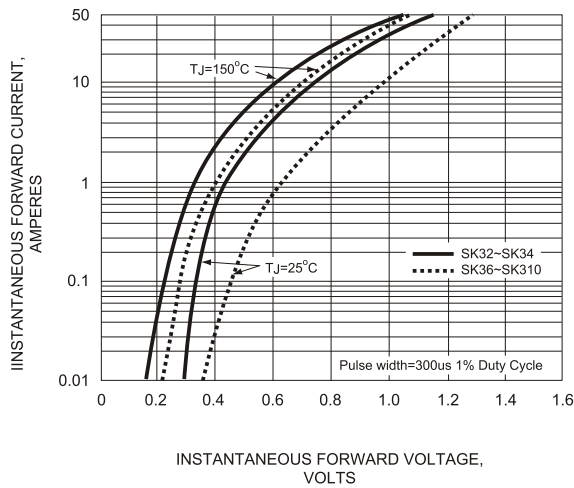


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

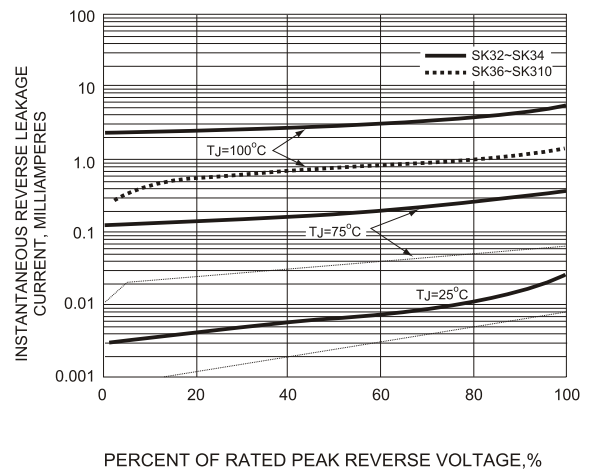


FIG.5 - TYPICAL JUNCTION CAPACITANCE

