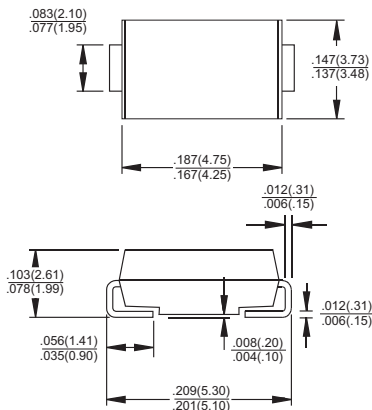




Features

- ✦ For surface mounted application
- ✦ Metal to silicon rectifier, majority carrier conduction
- ✦ Low forward voltage drop
- ✦ Easy pick and place
- ✦ High surge current capability
- ✦ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✦ Epitaxial construction
- ✦ High temperature soldering: 260°C / 10 seconds at terminals



Mechanical Data

- ✦ Case: Molded plastic
- ✦ Terminals: Pure tin plated, lead free.
- ✦ Polarity: Indicated by cathode band
- ✦ Packaging: 16mm tape per EIA STD RS-481
- ✦ Weight: 0.093 gram

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | Symbol | SK 12B | SK 13B | SK 14B | SK 15B | SK 16B | SK 90B | SK 110B | SK 115B | Units |
|---------------------------------------------------------------------------------------------------------------------|-----------------|-------------|--------|--------|--------|-------------|--------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 63 | 70 | 105 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 90 | 100 | 150 | V |
| Maximum Average Forward Rectified Current at $T_A=75^\circ\text{C}$ | $I_{(AV)}$ | 1.0 | | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 30 | | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 1.0A | V_F | 0.5 | | 0.75 | | 0.85 | | 0.95 | | V |
| Maximum DC Reverse Current (Note 1) @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$ | I_R | 0.5 | | | | 0.1 | | | | mA |
| | | 10 | | 5.0 | | 2.0 | | | | |
| Typical Junction Capacitance (Note 2) | C_j | 110 | | | | | | | | pF |
| Typical Thermal Resistance (Note 1) | $R_{\theta JL}$ | 25 | | | | | | | | °C/W |
| Operating Temperature Range | T_J | -55 to +125 | | | | -55 to +150 | | | | °C |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | °C |

- Notes:
1. Thermal Resistance from Junction to Lead.
 2. Measured at 1.0 MHz and Applies Reverse Voltage of 4.0V.
 3. Measured on P.C.Board with 0.4" x 0.4" (10mm x 10mm) Copper Pad Area.

RATINGS AND CHARACTERISTIC CURVES (SK12B THRU SK115B)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

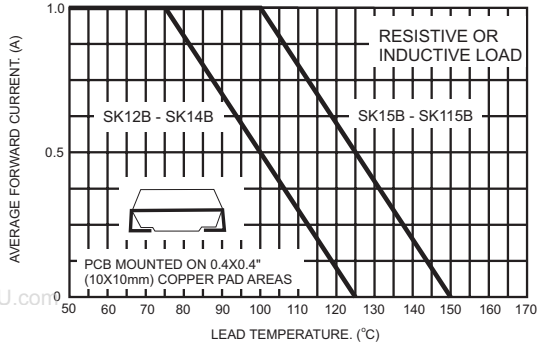


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

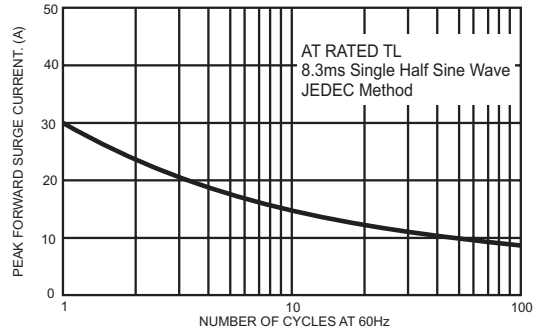


FIG.3- TYPICAL FORWARD CHARACTERISTICS

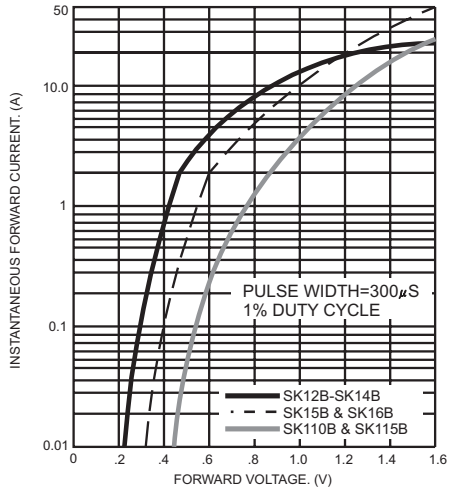


FIG.4- TYPICAL REVERSE CHARACTERISTICS

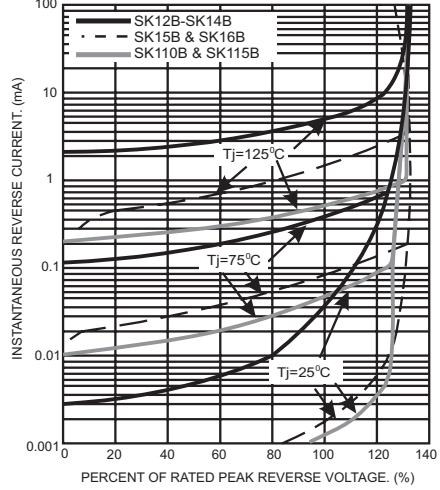


FIG.5- TYPICAL JUNCTION CAPACITANCE

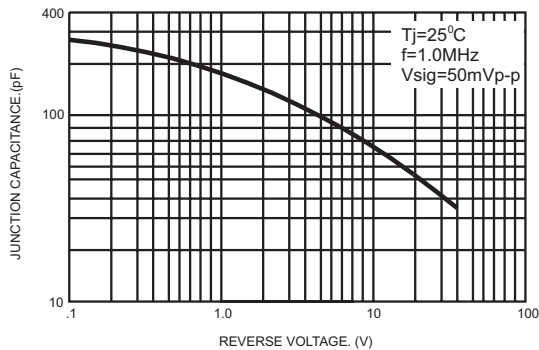


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

