



TAYCHIPST

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

SK32 THRU SK310

20V-100V 3.0A

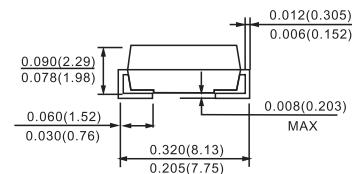
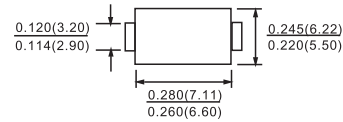
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier majority carrier conduction
- Low power loss, High efficiency
- High current capability, low V_F
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed: 260 C /10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode
 Standard packaging: 16mm tape (EIA-481)
 Weight: 0.007 ounce, 0.21 gram

DO-214AB(SMC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 C ambient temperature unless otherwise specified.

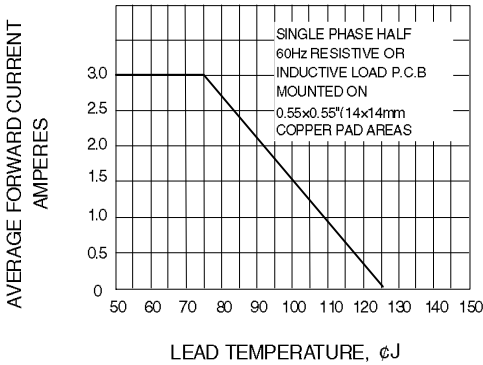
Resistive or inductive load.

| | SYMBOLS | SK32 | SK33 | SK34 | SK35 | SK36 | SK38 | SK39 | S310 | UNITS |
|----------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|------|------|------|------|------|------|------|---------------------|
| Maximum Recurrent 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 | 64 | 71 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | Volts |
| Maximum Average Forward Rectified Current at $T_L=75 \text{C}$ | $I_{(AV)}$ | 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 (Note 1) | V_F | 0.50 | | 0.70 | | 0.85 | | | | Volts |
| Maximum DC Reverse Current $T_A=25 \text{C}$ (Note 1) At Rated DC Blocking Voltage $T_A=100 \text{C}$ | I_R | 0.5 20.0 | | | | | | | | mA |
| Maximum Thermal Resistance (Note 2) | R_{KJL} R_{KJA} | 17 55 | | | | | | | | C/W |
| Operating Junction Temperature Range | T_J | -50 to +125 | | | | | | | | C |
| Storage Temperature Range | T_{STG} | -50 to +150 | | | | | | | | C |

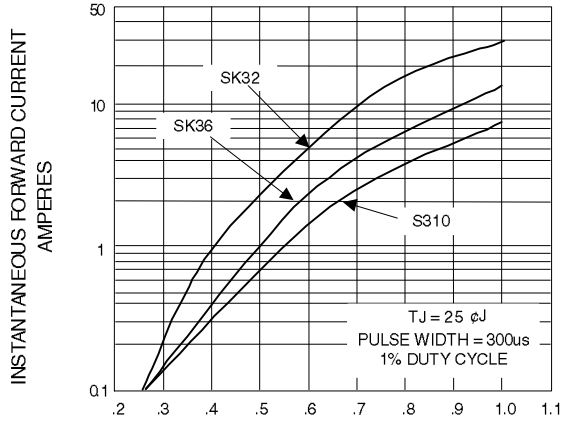
NOTES:

1. Pulse Test with PW=300 μg sec, 2% Duty Cycle.
2. Mounted on P.C.Board with 14mm² (.013mm thick) copper pad areas.

SK32-SK310



ig. 1-FORWARD CURRENT DERATING CURVE



TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

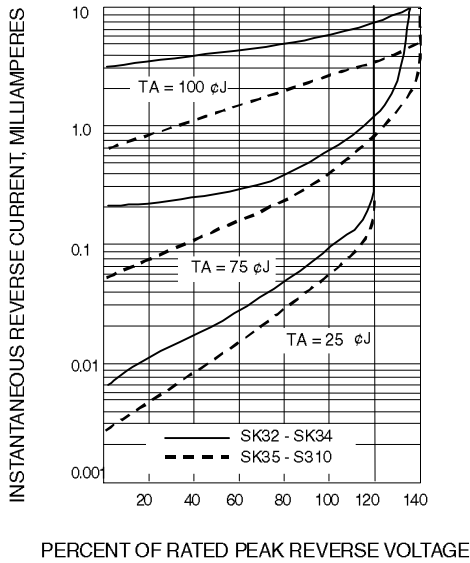


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

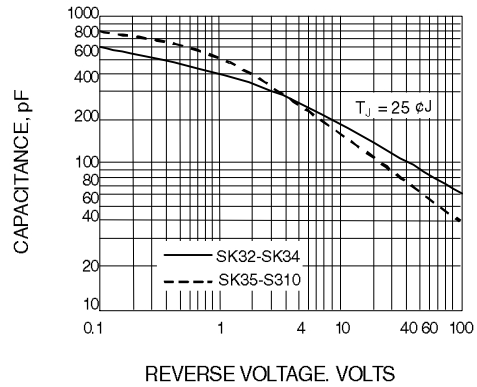


Fig. 4-TYPICAL JUNCTION CAPACITANCE

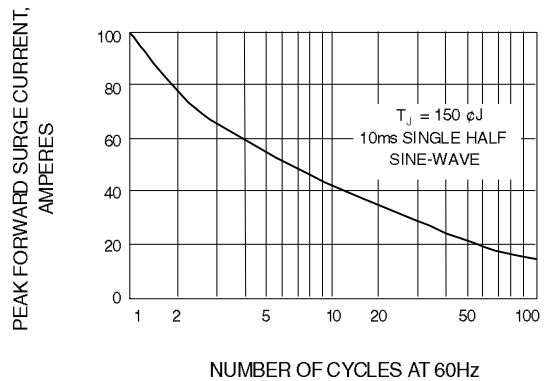


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT