



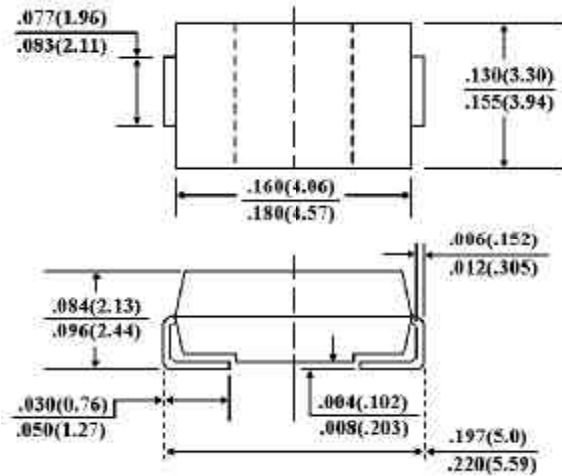
SK22 THRU S210

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER
VOLTAGE - 20 to 100 Volts CURRENT - 2.0 Amperes

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

SMB/DO-214AA



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.003 ounce, 0.093 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Resistive or inductive load.

| | SYMBOLS | SK22 | SK23 | SK24 | SK25 | SK26 | SK28 | SK29 | S210 | 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_J (See Figure 1) | $I_{(AV)}$ | 2.0 | | | | | | | | Amps | |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 50.0 | | | | | | | | Amps | |
| Maximum Instantaneous Forward Voltage at 2.0A (Note 1) | V_F | 0.50 | | | 0.70 | | 0.85 | | | Volts | |
| Maximum DC Reverse Current $T_A=25$ °C(Note 1) At Rated DC Blocking Voltage $T_A=100$ °C | I_R | | | | | 0.5 20.0 | | | | | mA |
| Maximum Thermal Resistance (Note 2) | $R_{\theta KJL}$ $R_{\theta KJA}$ | | | | | 17 75 | | | | | °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 µsec, 2% Duty Cycle.
2. Mounted on P.C.Board with 8.0mm² (.013mm thick) copper pad areas.

RATING AND CHARACTERISTIC CURVES

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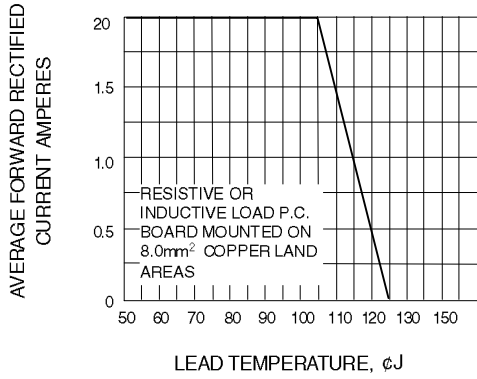


Fig. 1-FORWARD CURRENT DERATING CURVE

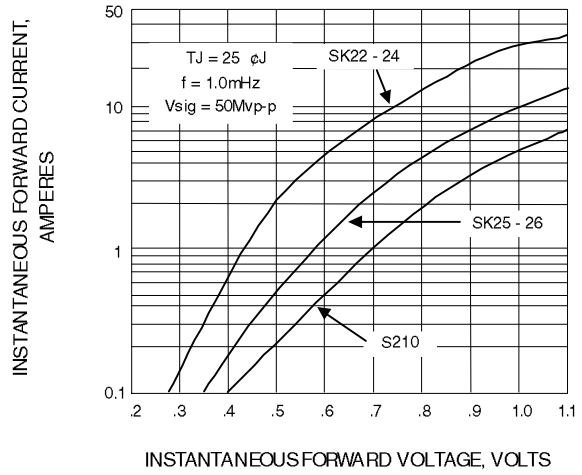


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

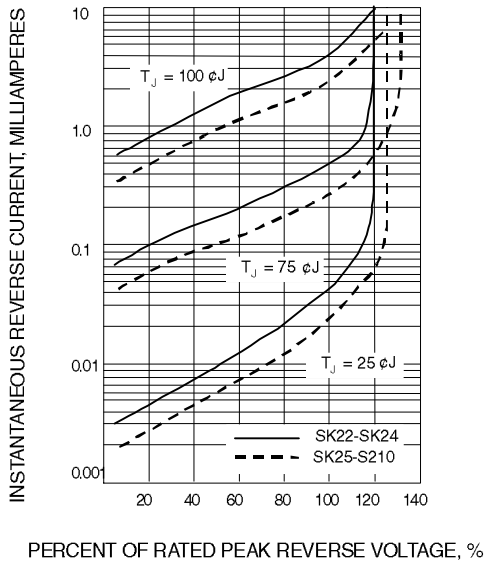


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

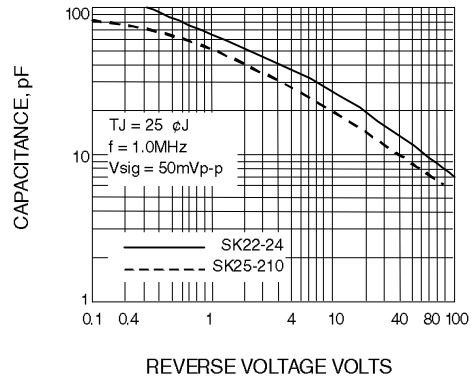


Fig. 4-TYPICAL JUNCTION CAPACITANCE

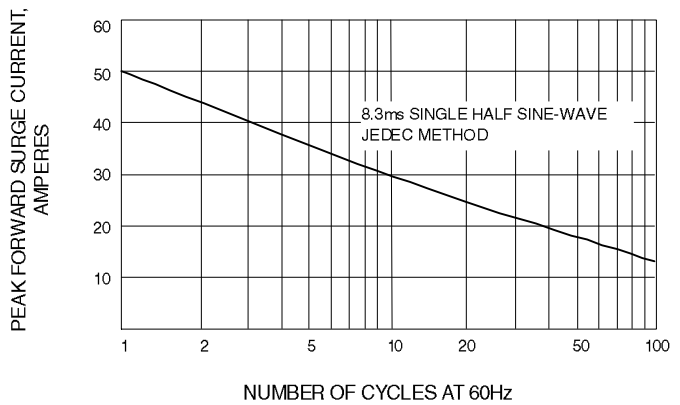


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT