



SK22-S thru SK2B-S

2.0 Amps. Surface Mount Schottky Barrier Rectifiers
Voltage Range 20 to 100 Volts Forward Current 2.0 Amperes

Features

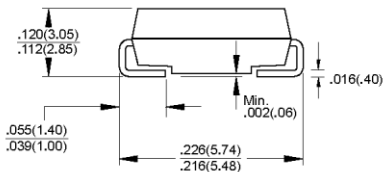
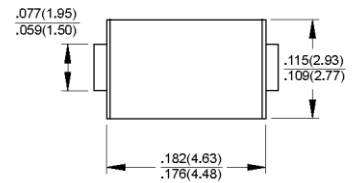
- ◆ Ideal for surface mounted application
- ◆ Metallurgically bonded construction
- ◆ Low forward voltage drop
- ◆ Easy pick and place
- ◆ High surge current capability
- ◆ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ◆ Epitaxial construction
- ◆ Low leakage current
- ◆ High temperature soldering:
260°C / 10 seconds at terminals

Mechanical Data

- ◆ Cases: New SMA molded plastic
- ◆ Terminals: Solder plated
- ◆ Polarity: Indicated by cathode band
- ◆ Weight: 0.004 ounce, 0.11 gram



DO-214AC (SMAJ)



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings 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%

| Parameter | Symbols | SK 22-S | SK 23-S | SK 24-S | SK 25-S | SK 26-S | SK 27-S | SK 28-S | SK 29-S | SK 2B-S | Units | |
|---|-----------------|-------------|---------|---------|---------|-------------|---------|---------|---------|---------|------------------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | Volts | |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 49 | 56 | 63 | 70 | Volts | |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | Volts | |
| Maximum average forward rectified current at derating lead temperature | $I_{F(AV)}$ | 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 1.0A DC | V_F | 0.550 | | | 0.700 | | | 0.850 | | | Volts | |
| Maximum DC reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | I_R | 0.5 | | | | | 20 | | | | | mA |
| Typical thermal resistance (Note 1) | $R_{\theta JA}$ | 40 | | | | | | | | | | $^\circ\text{C/W}$ |
| Typical junction capacitance (Note 2) | C_J | 130 | | | | | | | | | | pF |
| Operating temperature range | T_J | -65 to +125 | | | | -65 to +150 | | | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -65 to +150 | | | | | | | | | $^\circ\text{C}$ | |

- Notes:**
1. Thermal Resistance (Junction to Ambient).
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. P.C.B Mounted with 0.2X0.2" (5.0 X 5.0mm²) copper pad area.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

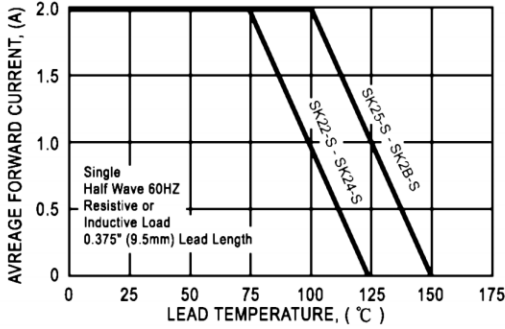


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

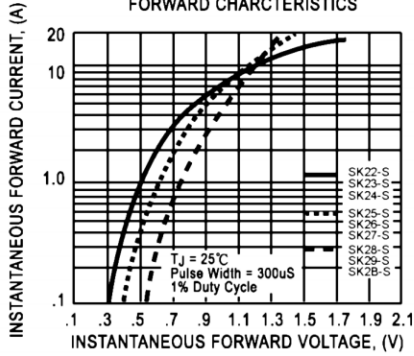


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

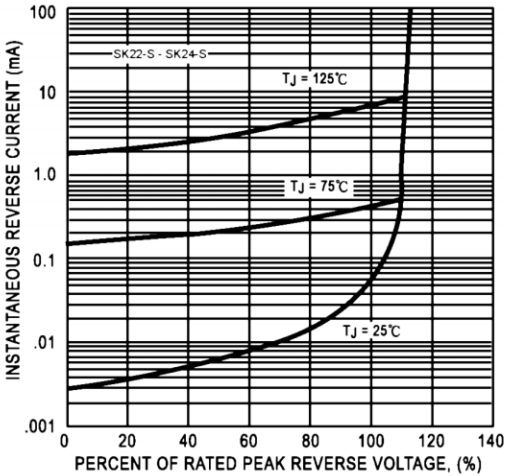


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

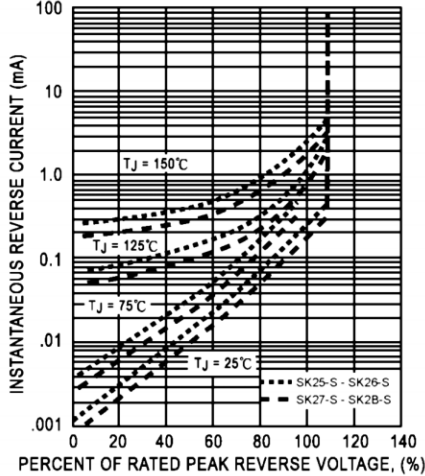


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

