SK12-S thru SK1B-S

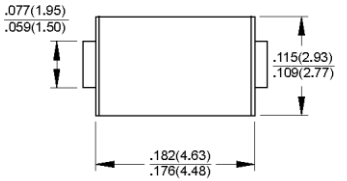
1.0 Amp. Surface Mount Schottky Barrier Rectifiers
Voltage Range 20 to 100 Volts Forward Current 1.0 Ampere

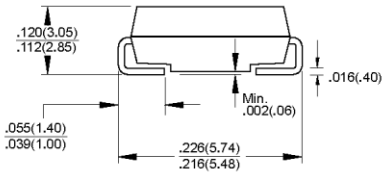
Features

- Ideal for surface mounted applications
- Metal-Semiconductor junction with guardring
- Epitaxial construction
- Low leakage current
- Metallurgically bonded construction
- High current capability
- Plastic material has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications



DO-214AC (SMAJ)





Dimensions in inches and (millimeters)

Mechanical Data

- Case : New SMA molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.004 ounce, 0.11 gram

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Parameter	Symbols	SK 12-S	SK 13-S	SK 14-S	SK 15-S	SK 16-S	SK 17-S	SK 18-S	SK 19-S	SK 1B-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	$I_{F(AV)}$	1.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40.0									Amps
Maximum instantaneous forward voltage at 1.0A DC	V_F	0.450	0.550	0.600	0.720			0.800			Volts
Maximum DC reverse current @ T_A=25°C at rated DC blocking voltage @ T_A=100°C	I_R	0.5 10									mA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	50									°C/W
Typical junction capacitance (Note 2)	C_J	110									pF
Operating temperature range	T_J	-65 to +125			-65 to +150						°C
Storage temperature range	T_{STG}	-65 to +150									°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 Monuted with 0.2X0.2" (5.0 X 5.0mm2) copper pad area.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

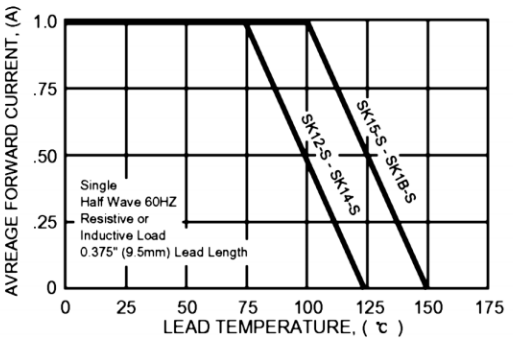


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

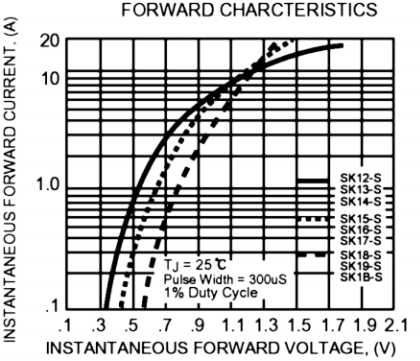


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

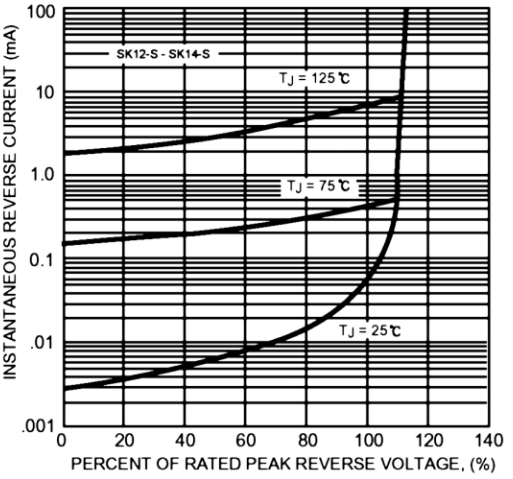


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

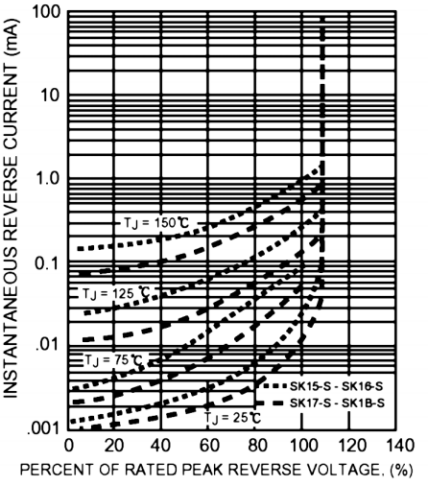
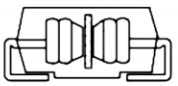


Figure :
New SMA Assembly



Round Lead
Process

FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

