



# SK12-S thru SK1B-S

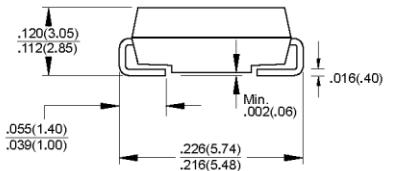
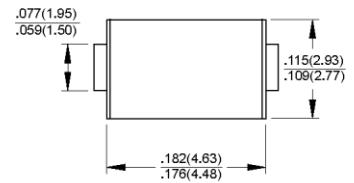
1.0 Amp. Surface Mount Schottky Barrier Rectifiers  
Voltage Range 20 to 100 Volts Forward Current 1.0 Ampere

## Features

- ◆ Ideal for surface mounted applications
- ◆ Metal-Semiconductor junction with guarding
- ◆ 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 @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	$I_R$	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 Mounted with 0.2X0.2" (5.0 X 5.0mm<sup>2</sup>) copper pad area.

# RATINGS AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

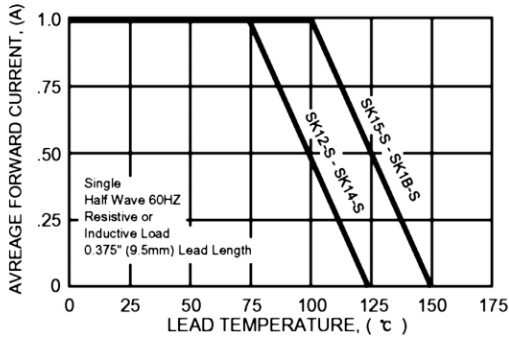


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

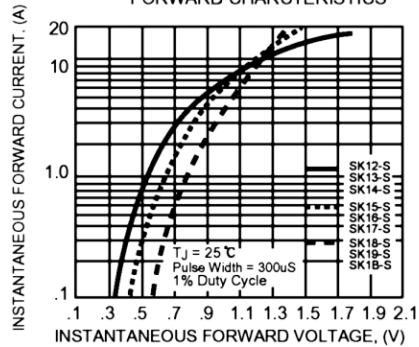


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

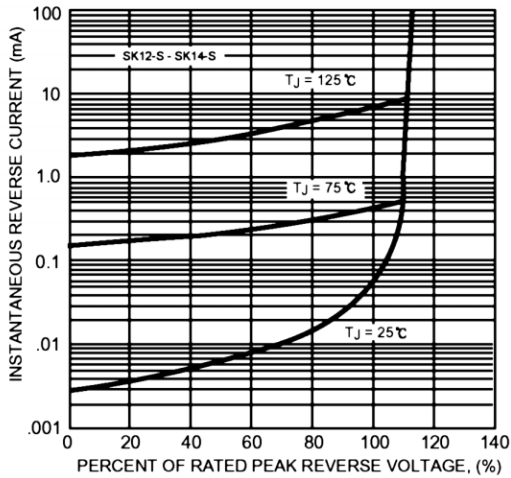


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

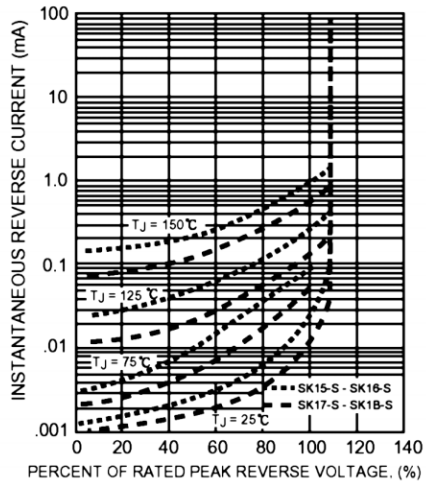


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

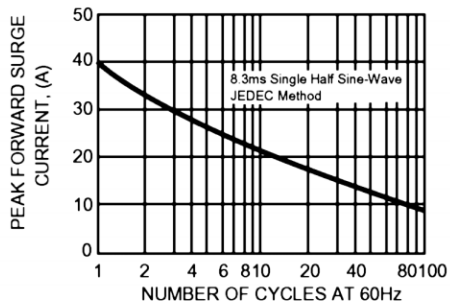


Figure :  
New SMA Assembly

