

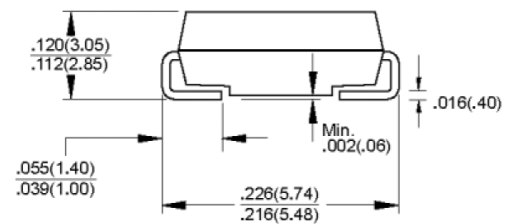
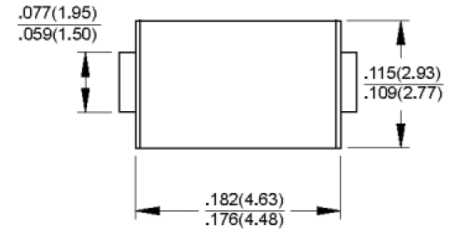
Features

2018

- ◆ Ideal for surface mounted applications
- ◆ Metal-Semiconductor junction with guardring
- ◆ Epitaxial construction
- ◆ High current capability
- ◆ Plastic material has UL flammability classification 94V-0
- ◆ Low leakage current
- ◆ 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	SKN7	SKN8	SKN9	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	Volts
Maximum average forward rectified current at $T_A = 90^\circ\text{C}$	$I_{F(AV)}$	1.0			Amp
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25.0			Amps
Maximum instantaneous forward voltage at 1.0	V_F	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1	V_F	0.750	0.875	0.900	Volts
Maximum average reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	1.0 10.0			mA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	80			$^\circ\text{C/W}$
Typical junction capacitance (Note 2)	C_J	110			pF
Operating and storage temperature range	T_J, T_{STG}	-65 to +125			$^\circ\text{C}$

- Notes:**
1. Thermal Resistance (Junction to Ambient): Vertical PC Board Mounting, 0.5" (12.7mm) Lead Length.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

FIG. 1 -- TYPICAL FORWARD CURRENT DERATING CURVE

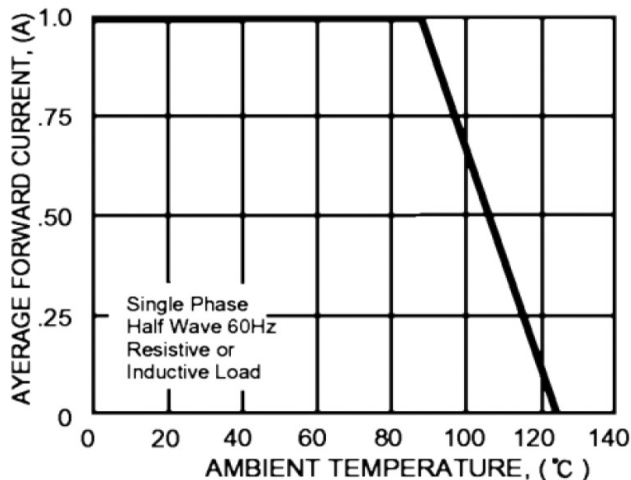


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

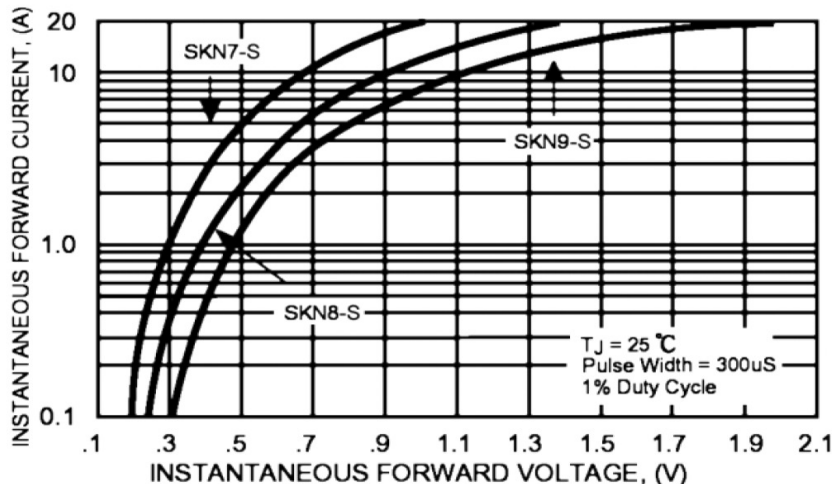


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

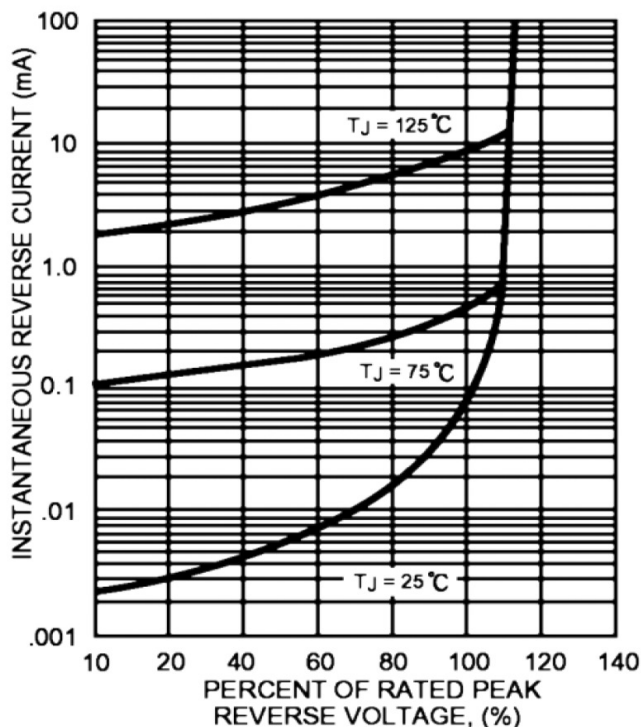


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

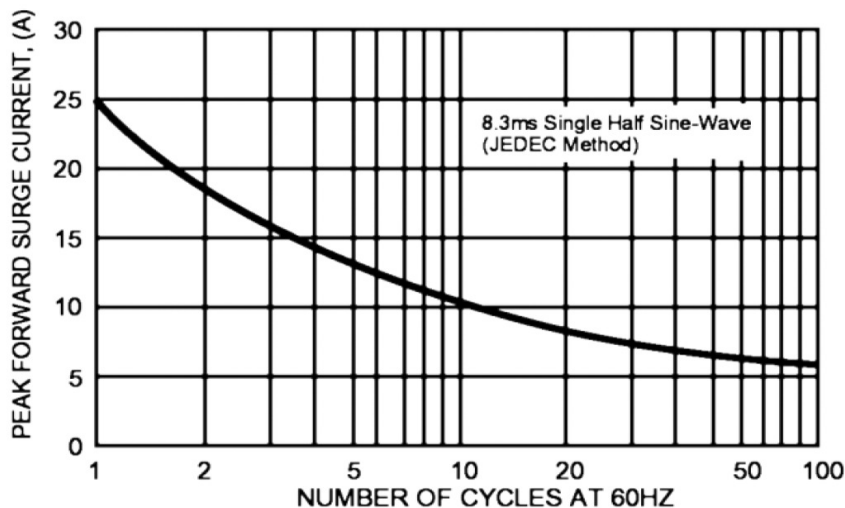


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

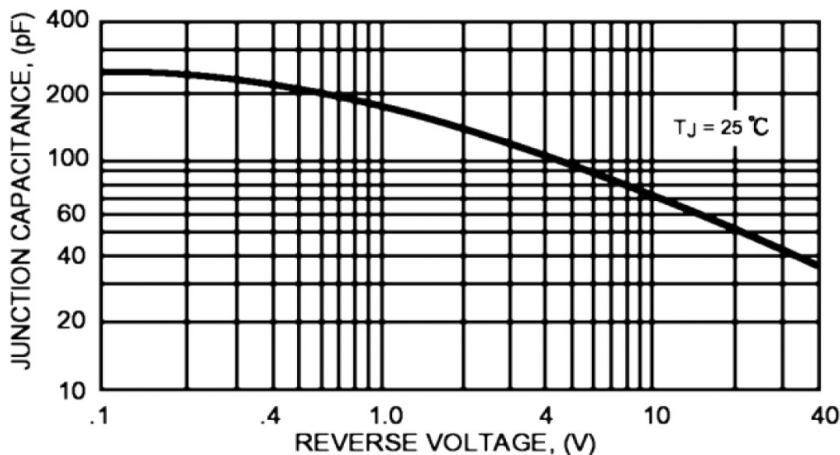
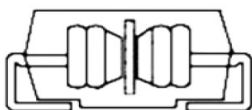


Figure :
New SMA Assembly



Round Lead
Process