



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**SK12  
THRU  
SK18**

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER**  
**VOLTAGE RANGE - 20 to 80 Volts** **CURRENT - 1.0 Ampere**

**FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Glass passivated junction

**MECHANICAL DATA**

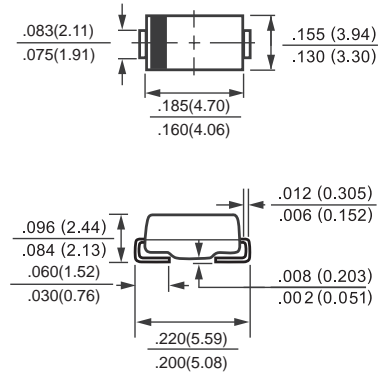
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.093 gram

**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%.



SMB (DO-214AA)



Dimensions in inches and (millimeters)

	SYMBOL	SK12	SK13	SK14	SK15	SK16	SK18	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	I <sub>O</sub>	1.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50						Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	V <sub>F</sub>	0.55		0.70		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25°C						mAmps
		@T <sub>A</sub> = 100°C						
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	95						°C/W
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	130						pF
Operating Temperature Range	T <sub>J</sub>	-65 to + 125						°C
Storage Temperature Range	T <sub>STG</sub>	-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\*(5.0X5.0mm<sup>2</sup>) copper pad area.

# RATING AND CHARACTERISTIC CURVES ( SK12 THRU SK18 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

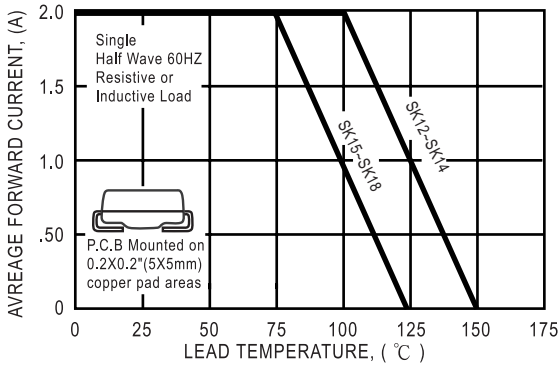


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

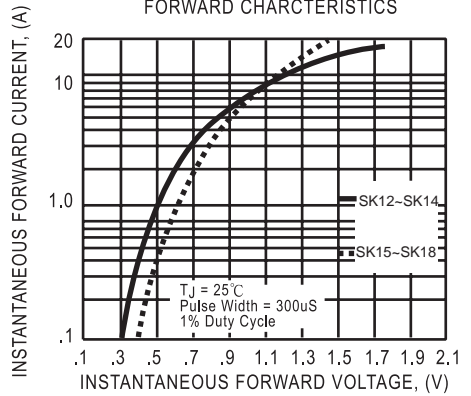


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

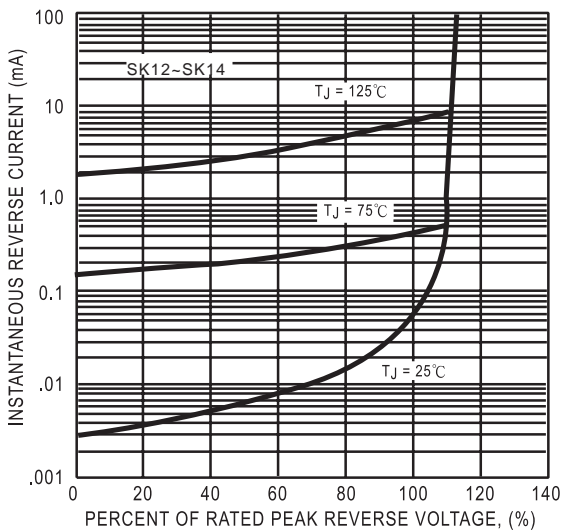


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

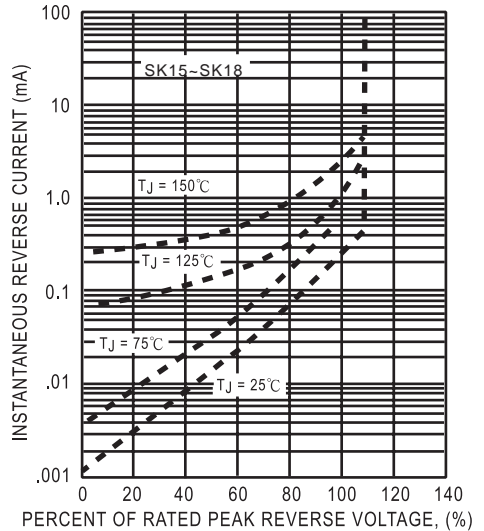


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

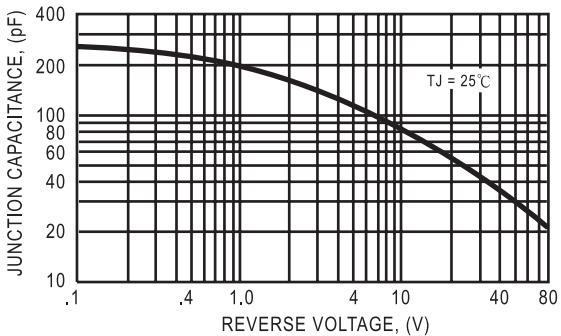
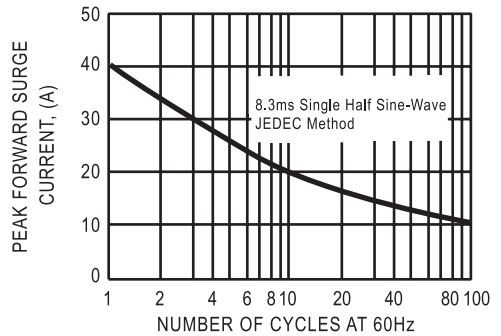


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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