



**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**

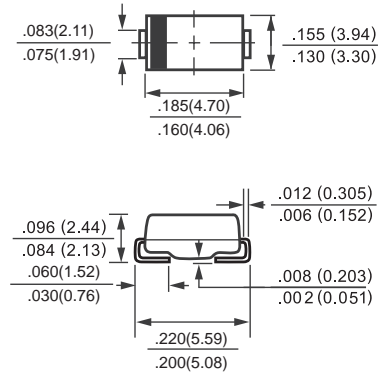
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- \* Polarity: As marked
- \* Mounting position: Any
- \* Weight: 0.093 gram

**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	VRRM	20	30	40	50	60	80	Volts
Maximum RMS Voltage	VRMS	14	21	28	35	42	56	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	50	60	80	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	IO	1.0						Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50						Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	0.55		0.70		0.85		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TA = 25°C						mAmps
		@TA = 100°C						
Typical Thermal Resistance (Note 2)	RθJA	95						°C/W
Typical Junction Capacitance (Note 1)	CJ	130						pF
Operating Temperature Range	TJ	-65 to + 125						°C
Storage Temperature Range	TSTG	-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

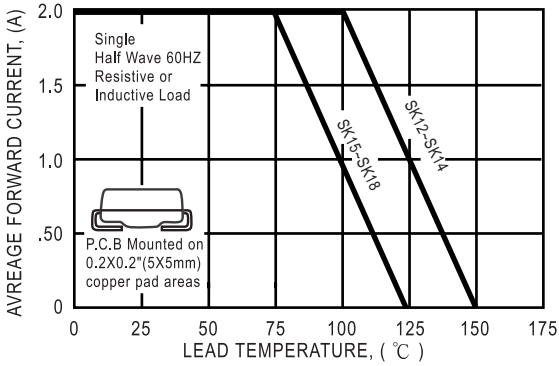


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

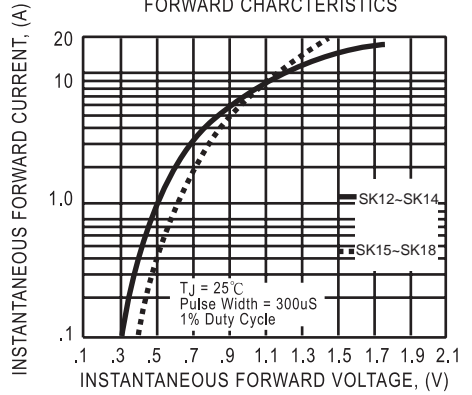


FIG. 3A - TYPICAL REVERSE CHARACTERISTICS

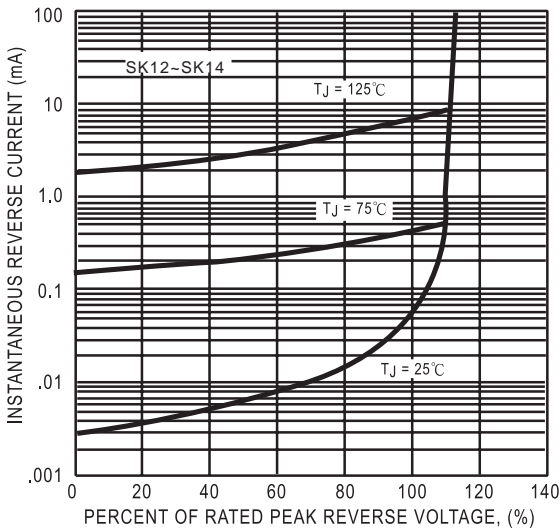


FIG. 3B - TYPICAL REVERSE CHARACTERISTICS

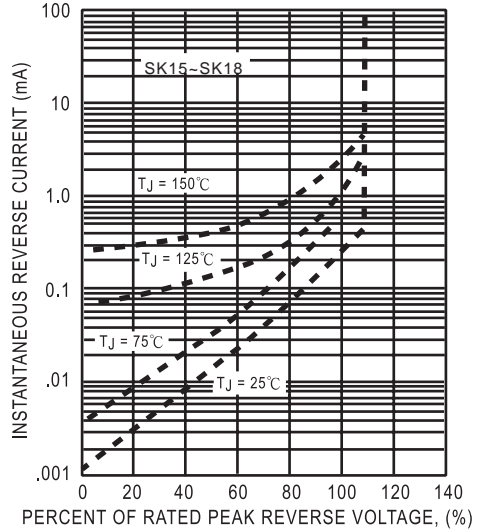


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

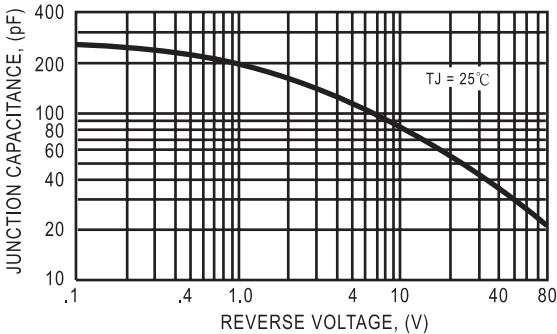
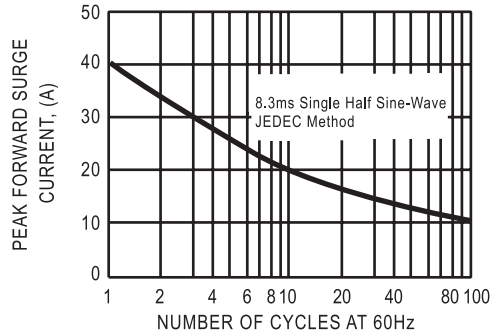


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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