

SB12 THRU SB16

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE:20 TO 60V

CURRENT: 1.0A



FEATURE

Plastic package has Underwriters Laboratory Flammability Classification 94V-0

For surface mounted applications

Low profile package

Built-in strain relief

Low power loss, high efficiency

High current capability, low forward voltage drop

High surge capability

For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

Guardring for overvoltage protection

High temperature soldering guaranteed:

250°C /10 seconds at terminals

MECHANICAL DATA

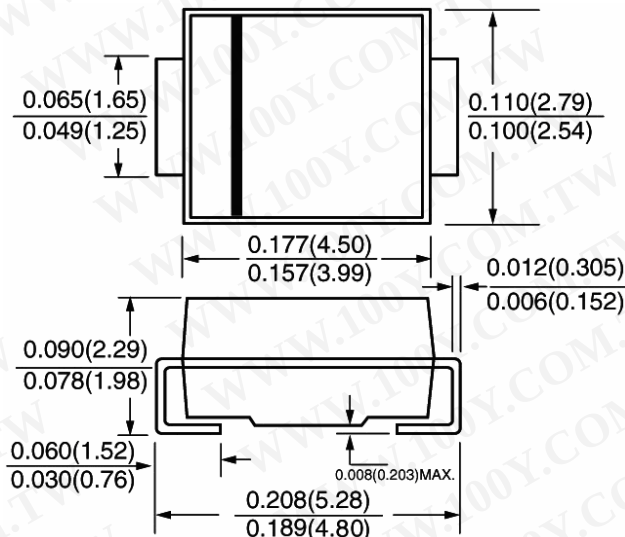
Case: JEDEC DO-214AC molded plastic body

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Weight: 0.002 ounce, 0.064 gram

SMA/DO--214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated, for capacitive load, derate current by 20%)

	SYMBOL	SB 12	SB 13	SB 14	SB 15	SB 16	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	20	30	40	50	60	V
Maximum RMS Voltage	Vrms	14	21	28	35	42	V
Maximum DC blocking Voltage	Vdc	20	30	40	50	60	V
Maximum Average Forward Rectified Current 3/8"lead length at T _L =110°C	If(av)	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	40.0					A
Maximum Forward Voltage atrated Forward current (Note 1)	Vf	0.50			0.75		V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	Ir	0.5					mA
		10.0			5.0		
Typical Thermal Resistance (Note 2)	Rth(ja)	88.0					°C /W
Operating junction temperature range	TJ	-55 to +125			-55 to +150		°C
Storage Temperature range	Tstg	-55 to +150					°C

NOTE:

(1) Pulse test: 300μs pulse width, 1% duty cycle

(2) P.C.B. mounted with 0.2 x 0.2inches (5.0 x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES SB12 THRU SB16

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FIG. 1 - FORWARD CURRENT DERATING CURVE

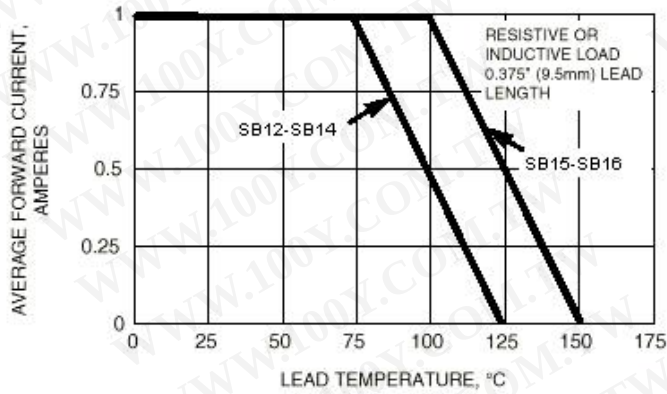


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

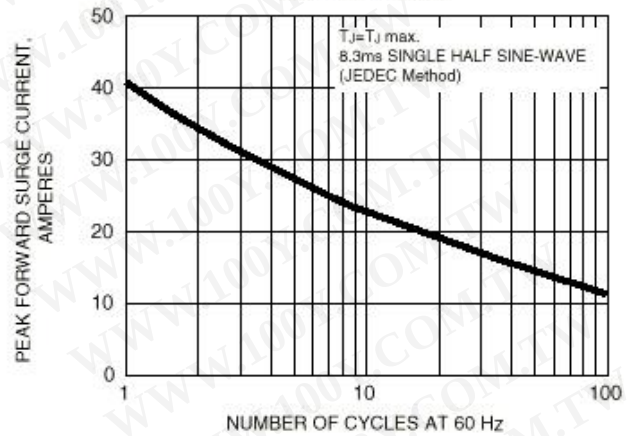


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

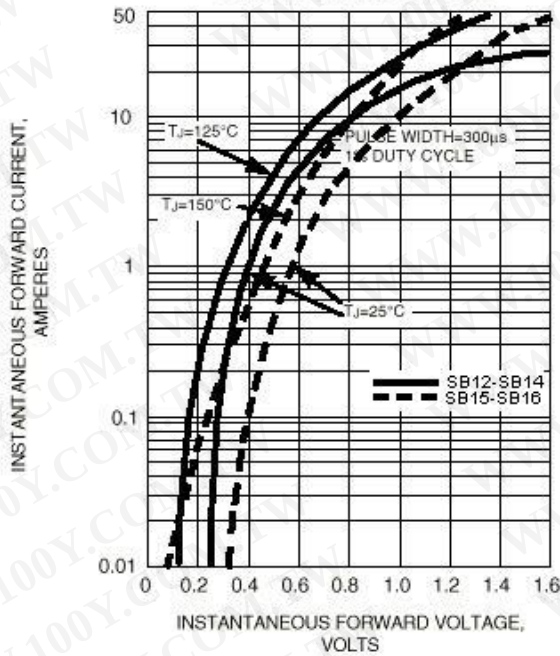


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

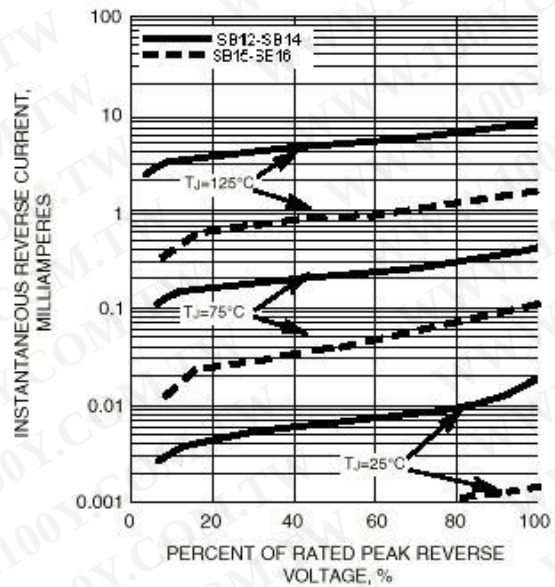


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

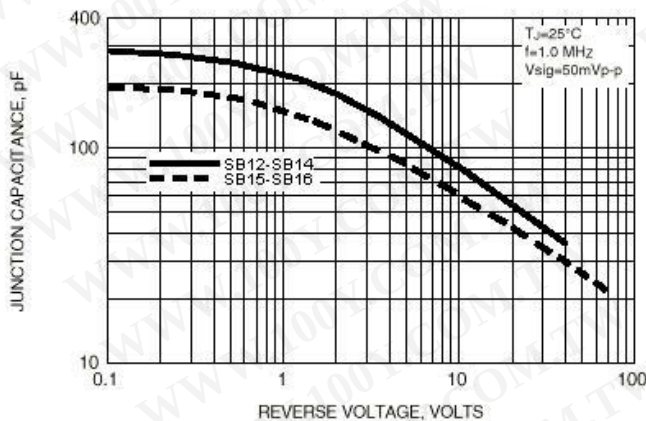


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

