SB02EQ THRU SB04EQ

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 40V CURRENT: 1.0A

GULF SEMI

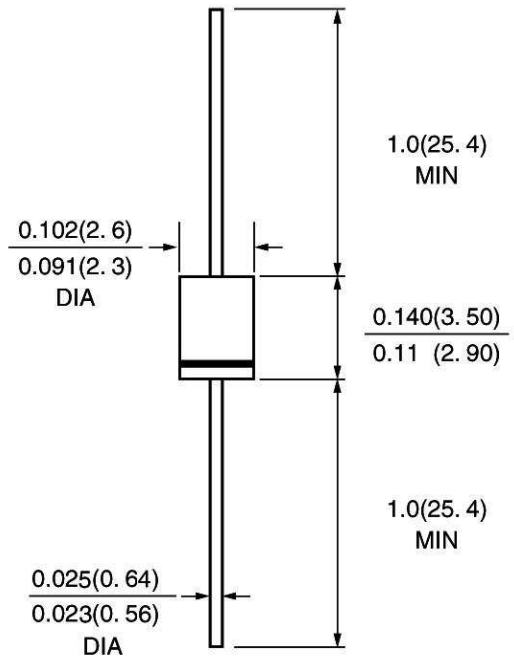
FEATURE

High current capability, Low forward voltage drop
Low power loss, high efficiency
High surge capability
High temperature soldering guaranteed
250℃ /10sec/0.375" lead length at 5 lbs tension
These are Pb−Free Devices

MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any
Mark: S02 S03 S04

R-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25℃, unless otherwise stated)

	SYMBOL	SB02EQ	SB03EQ	SB04EQ	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	20	30	40	V
Maximum RMS Voltage	Vrms	14	21	28	V
Maximum DC blocking Voltage	Vdc	20	30	40	V
Maximum Average Forward Rectified Current 0.375" lead length TL=60℃	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 at 0.6A DC(Note 1)	Vf	0.55			V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =100℃	Ir	0.5 10.0			mA mA
Typical Thermal Resistance (Note 2)	R(ja)	80.0			℃ /W
Storage and Operating Junction Temperature	Tj	-50 to +150			℃

Note:
1. Pulse test :300uS pulse width ,1% duty cycle.
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted [1]

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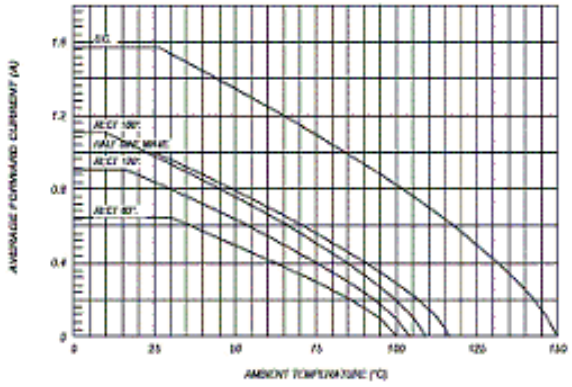
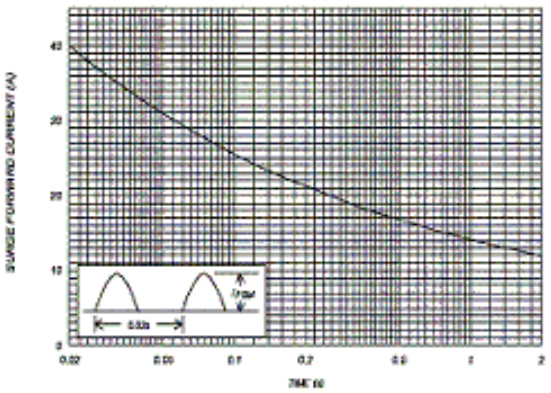
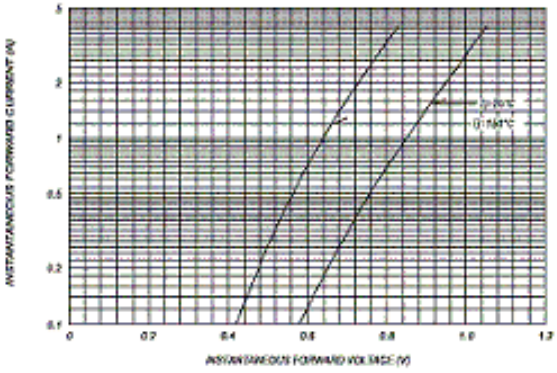
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE



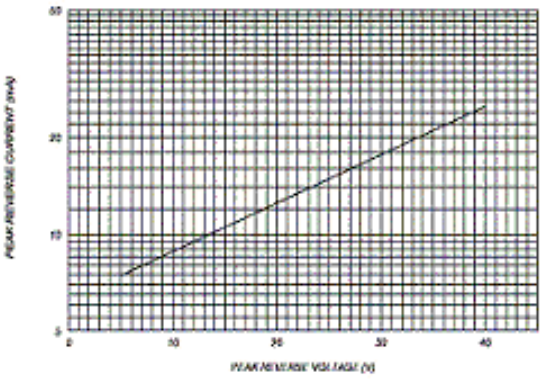
SURGE CURRENT RATINGS



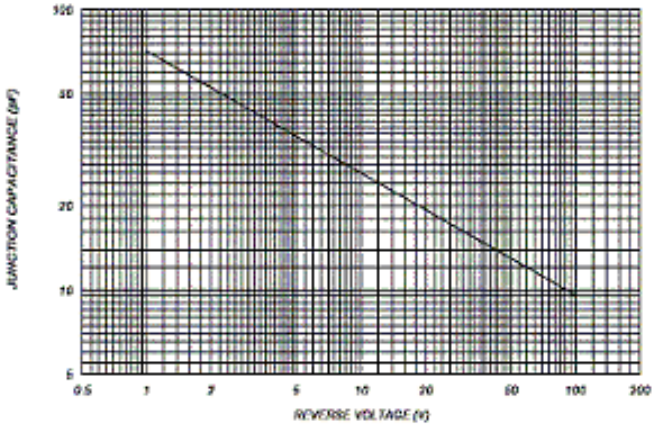
FORWARD CURRENT VS. VOLTAGE



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE



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