

SB02EQ THRU SB04EQ

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 40V CURRENT: 1.0A

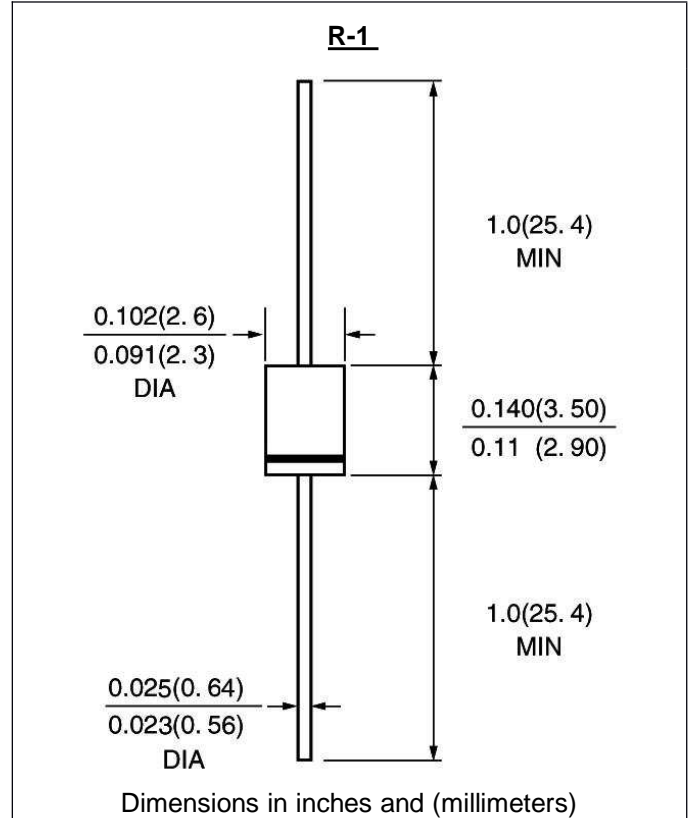


FEATURE

High current capability, Low forward voltage drop
 Low power loss, high efficiency
 High surge capability
 High temperature soldering guaranteed
 250°C /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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

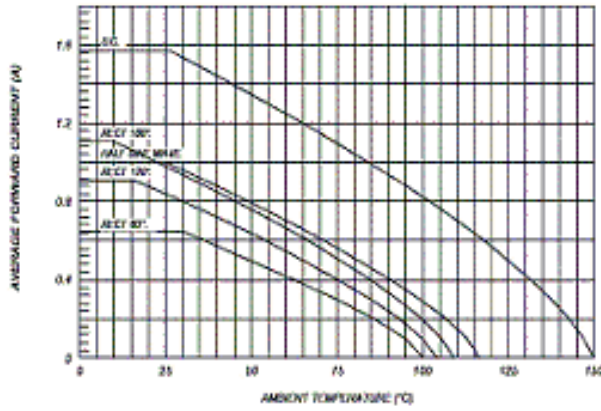
	SYMBOL	SB02EQ	SB03EQ	SB04EQ	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	20	30	40	V
Maximum RMS Voltage	V _{rms}	14	21	28	V
Maximum DC blocking Voltage	V _{dc}	20	30	40	V
Maximum Average Forward Rectified Current 0.375" lead length TL=60°C	I _{f(av)}	1.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	40.0			A
Maximum Forward Voltage at 0.6A DC(Note 1)	V _f	0.55			V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I _r	0.5 10.0			mA mA
Typical Thermal Resistance (Note 2)	R(ja)	80.0			°C /W
Storage and Operating Junction Temperature	T _j	-50 to +150			°C

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

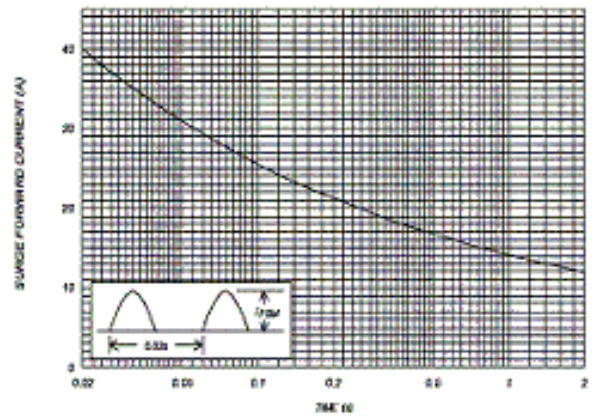
RATINGS AND CHARACTERISTIC CURVES SB02EQ THRU SB04EQ

AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE
Without File or P.C. Board, $V_{\text{rev}} = 40\text{V}$

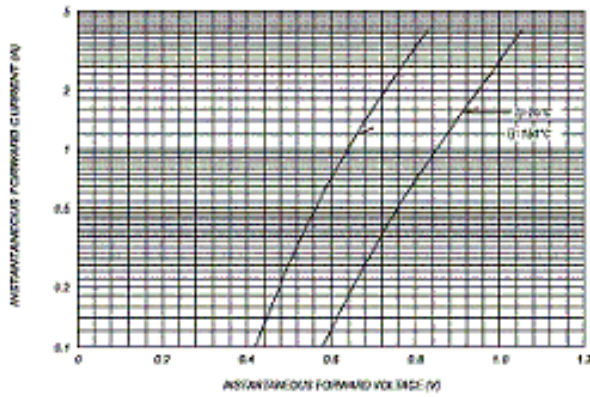


SURGE CURRENT RATINGS

1-50Hz, Half Sine Wave, Non-Repetitive, No Load

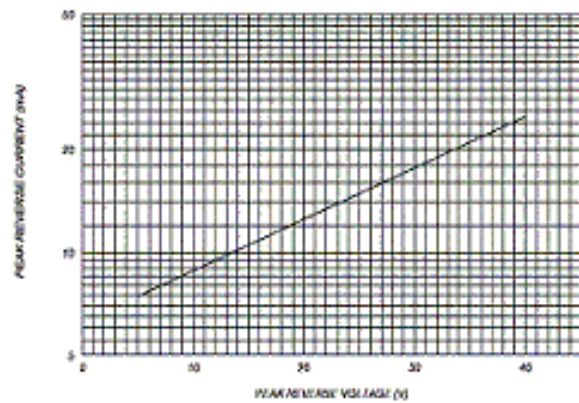


FORWARD CURRENT VS. VOLTAGE



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

$T_j = 150^\circ\text{C}$



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j = 25^\circ\text{C}$, $V_{\text{rev}} = 20\text{mV}$, $f = 100\text{kHz}$, Typical Value

