

# SB04EQ

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 40V      CURRENT: 1.0A

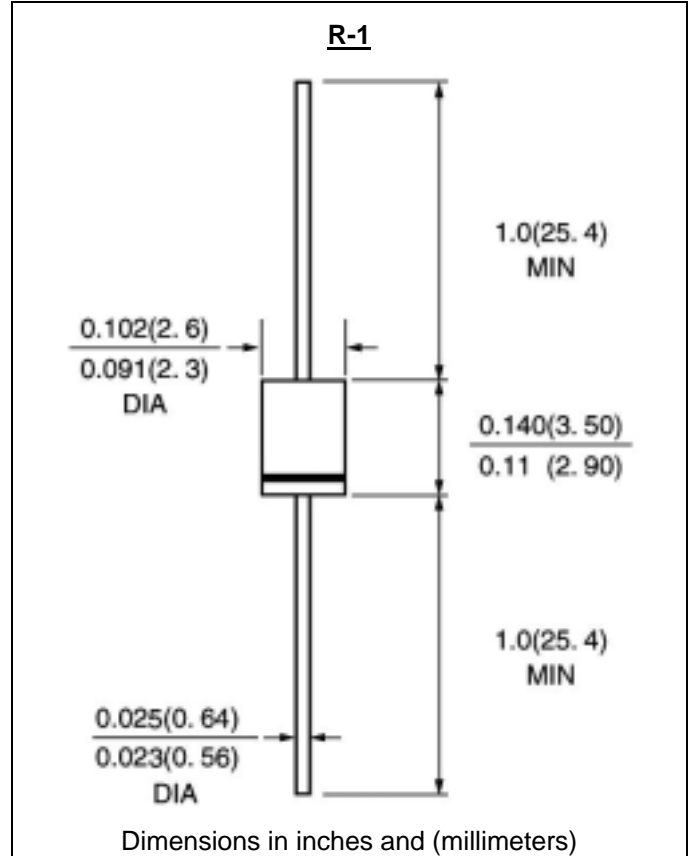


### FEATURE

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

### 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



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	SB04EQ	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	40	V
Maximum RMS Voltage	V <sub>rms</sub>	40	V
Maximum DC blocking Voltage	V <sub>dc</sub>	40	V
Maximum Average Forward Rectified Current Without Fin or P.C.B Ta=25	I <sub>f(av)</sub>	1.0	A
Peak Forward Surge Current 10ms single half sine-wave superimposed	I <sub>fsm</sub>	40.0	A
Maximum Forward Voltage at 1.0A DC(Note 1)	V <sub>f</sub>	0.55	V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I <sub>r</sub>	0.5 10.0	mA mA
Typical Thermal Resistance (Note 2)	R (ja)	140.0	°C /W
Storage and Operating Junction Temperature	T <sub>j</sub>	-40 to +150	°C

Note:

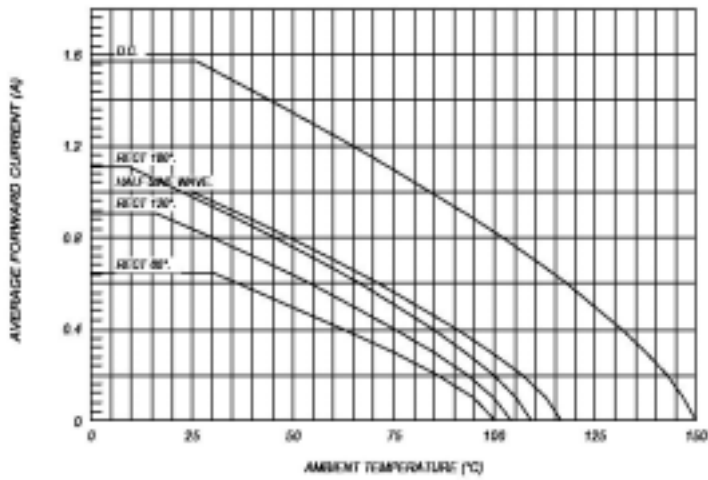
1. Pulse test :300uS pulse width ,1% duty cycle.
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted <sup>1</sup>

<sup>1</sup> Rev.A5, 15-Feb-04

# RATINGS AND CHARACTERISTIC CURVES SB04EQ

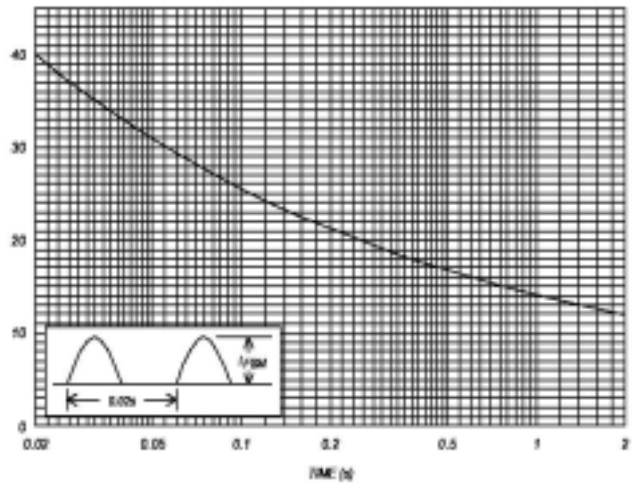
**AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE**

Without Fin or P.C. Board,  $V_{sw}=40V$

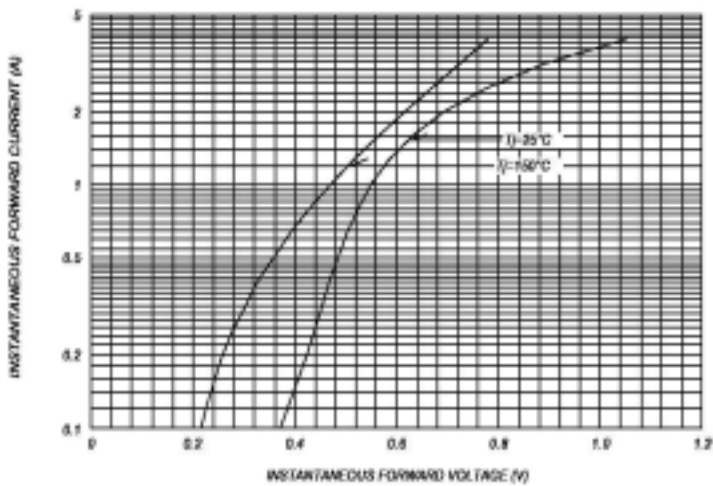


**SURGE CURRENT RATINGS**

f: 50Hz, Half Sine Wave, Non-Repetitive, No Load

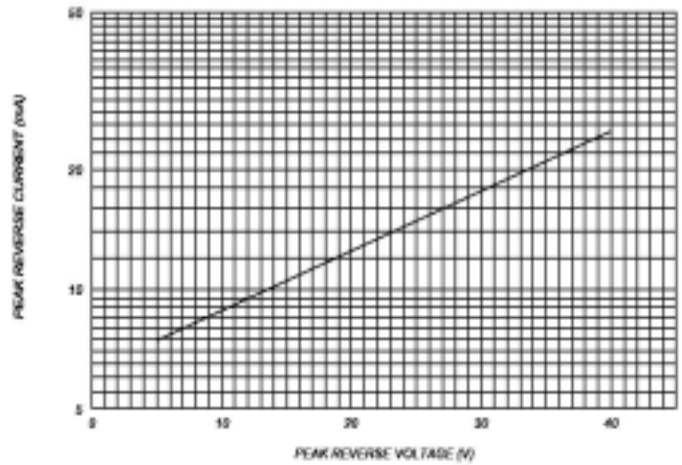


**FORWARD CURRENT VS. VOLTAGE**



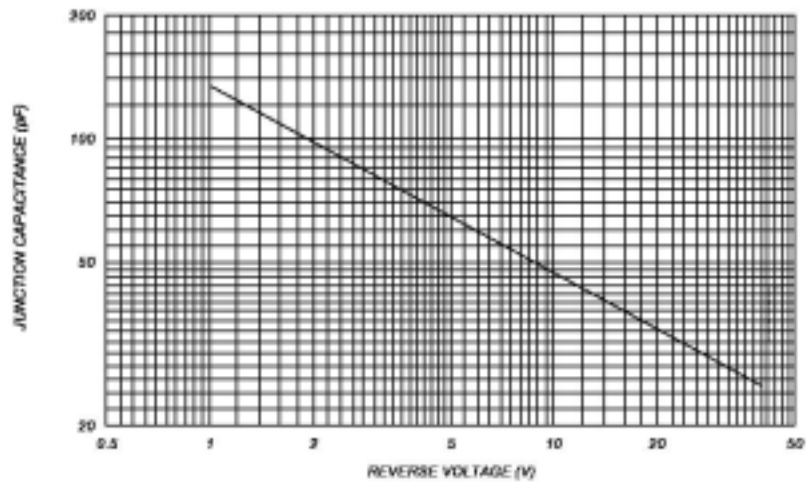
**PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE**

$T_j = 150^\circ C$



**JUNCTION CAPACITANCE VS. REVERSE VOLTAGE**

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



- Marking :  
SB04EQ

