



SB020 thru SB060

Miniature Schottky Barrier Rectifiers
Reverse Voltage 20 to 60 Volts Forward Current 0.6 Ampere

Features

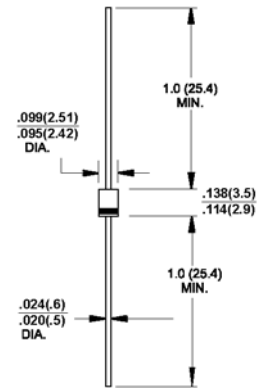
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low power loss, high efficiency
- ◆ For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- ◆ Guardring for overvoltage protection



R-1

Mechanical Data

- ◆ Case: Molded plastic body, R-1
- ◆ Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
High temperature soldering guaranteed:
250°C/10 seconds 0.375" (9.5mm) lead length,
5lbs. (2.3kg) tension
- ◆ Polarity: Color band denotes cathode end
- ◆ Mounting Position: Any
- ◆ Weight: 0.007 ounce, 0.20 gram



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbols	SB020	SB030	SB040	SB050	SB060	Units
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	Volts
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	Volts
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	Volts
Maximum average forward rectified current at 0.375" (9.5mm) lead length (See Fig.1)	I _{F(AV)}	0.6					Amp
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	20.0					Amps
Max. instantaneous forward voltage at 0.6A (Note 1)	V _F	0.55			0.70		Volts
Maximum instantaneous reverse current at rated DC blocking voltage ⁽¹⁾ T _A = 25°C T _A =100°C	I _R	0.5					mA
		10			5.0		
Typical thermal resistance (Note 2)	R _{θJA} R _{θJL}	80 20					°C/W
Operating junction temperature range	T _J	-55 to +125			-55 to +150		°C
Storage temperature range	T _{STG}	-55 to +150					°C

- Notes:**
1. Pulse test: 300us pulse width, 1% duty cycle
 2. Thermal resistance junction to lead P.C.B. mounted 0.375" (9.5mm) lead length

RATINGS AND CHARACTERISTIC CURVES

($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

