

# Schottky Diode

## **SB140**

40V / 1A

# DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

# SB120 THRU SB160

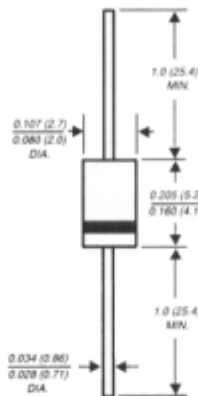
## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 60 Volts Forward Current - 1.0 Ampere

### FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High current capability, low forward voltage drop
- ◆ High surge capability
- ◆ Guardring for overvoltage protection
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3 kg) tension

DO-204AL



Dimensions in inches and (millimeters)

### MECHANICAL DATA

**Case:** JEDEC DO-204AL molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.012 ounce, 0.34 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	SB120	SB130	SB140	SB150	SB160	UNITS
Maximum repetitive peak reverse voltage	VRRM	20	30	40	50	60	Volts
Maximum RMS voltage	VRMS	14	21	28	35	42	Volts
Maximum DC blocking voltage	VDC	20	30	40	50	60	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I(AV)	1.0					Amp
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	40.0					Amps
Maximum instantaneous forward voltage at 1.0A (NOTE 1)	VF	0.50			0.70		Volts
Maximum instantaneous reverse current at rated DC blocking voltage TA=25°C (NOTE 1) TA=100°C	IR	0.5			5.0		mA
Typical thermal resistance (NOTE 2)	REJA REJL	50.0 15.0					°C/W
Operating junction temperature range	TJ	-65 to +125			-65 to +150		°C
Storage temperature range	TSTG	-65 to +150					°C

**NOTES:**

- (1) Pulse test: 300µs 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 SB120 THRU SB160**

