



SB1520 THRU SB15100

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 15.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

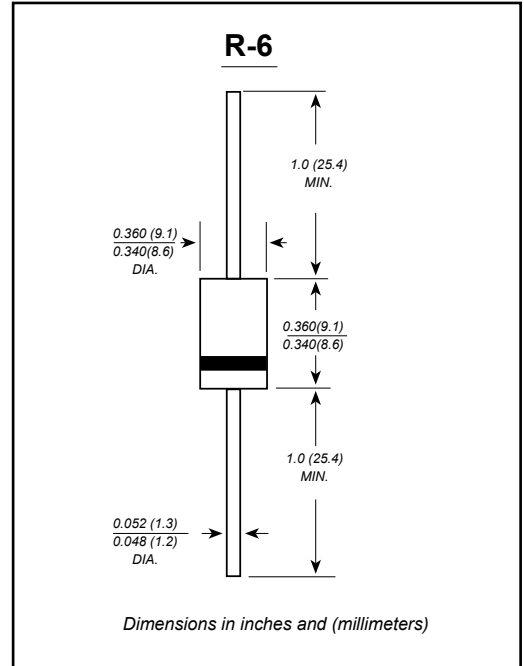
Case: R-6 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.072 ounce, 2.05 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristic	Symbol	SB 1520	SB 1530	SB 1540	SB 1545	SB 1550	SB 1560	SB 1580	SB 15100	Unit
Peak Repetitive Reverse Voltage	V _{RRM}									V
Working Peak Reverse Voltage	V _{RWM}	20	30	40	45	50	60	80	100	
DC Blocking Voltage	V _R									
RMS Reverse Voltage	V _{R(RMS)}	14	21	28	32	35	42	56	70	V
Average Rectified Output Current @T _C = 95°C	I _O	15.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	300								A
Forward Voltage @I _F = 15.0A	V _{FM}	0.55			0.70		0.90			V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 100°C	I _{RM}	0.2				80				mA
Typical Junction Capacitance (Note 1)	C _j	500								pF
Typical Thermal Resistance (Note 2)	R _{θJA}	40								°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +125				-65 to +150				°C.

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



SB1520 THRU SB15100

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 Forward Current Derating Curve

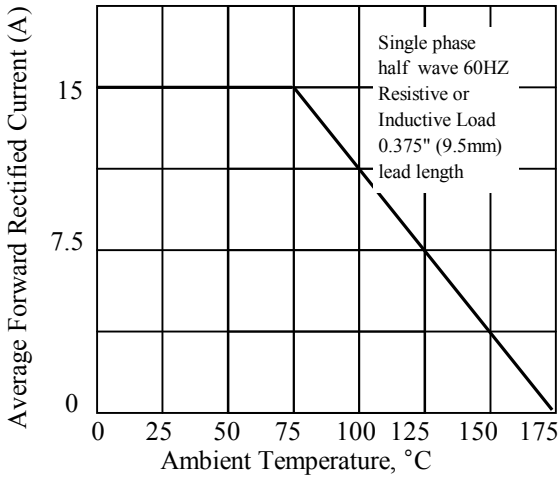


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

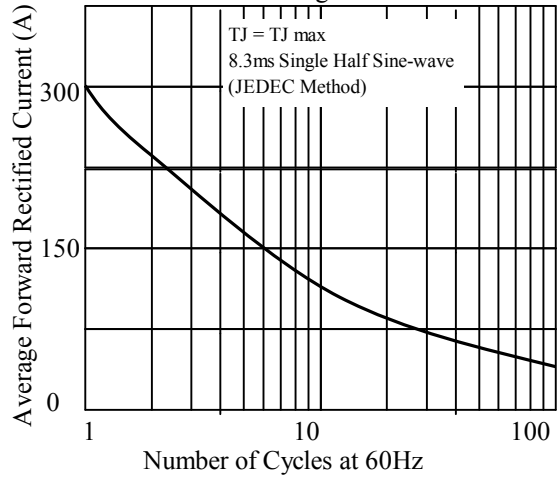


Fig. 3. Typical Instantaneous Forward Characteristics

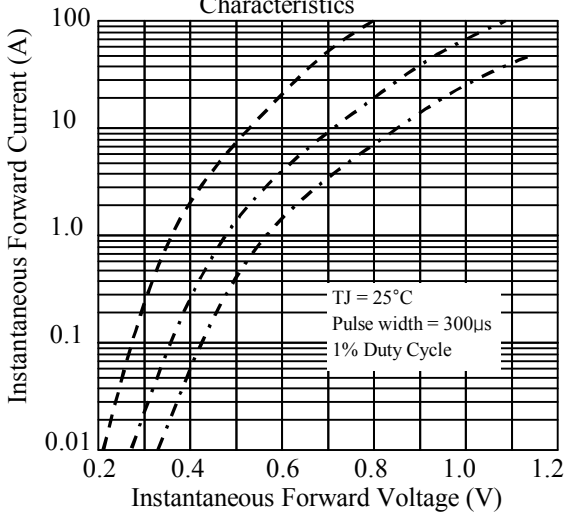


Fig. 4. Typical Reverse Characteristics

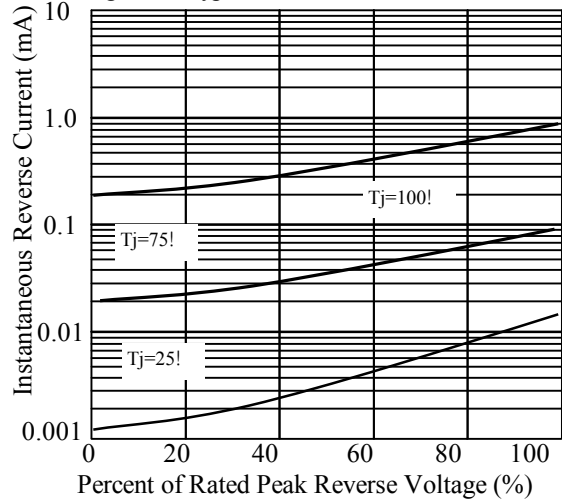


Fig. 5. typical transient thermal impedance

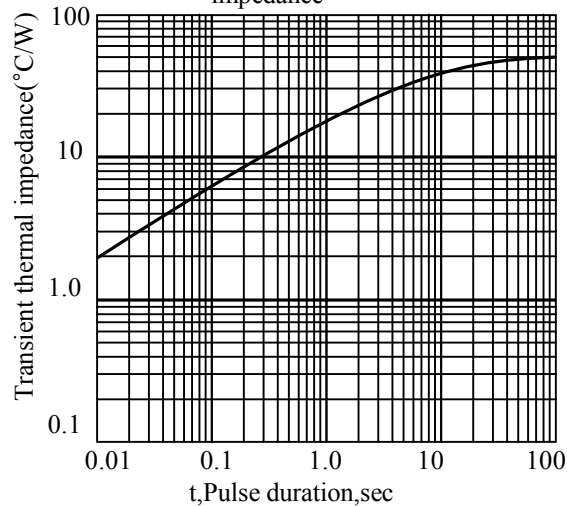


Fig. 6. Typical Junction Capacitance

