

SB1020 THRU SB10100

10.0A SCHOTTKY BARRIER RECTIFIERS

FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

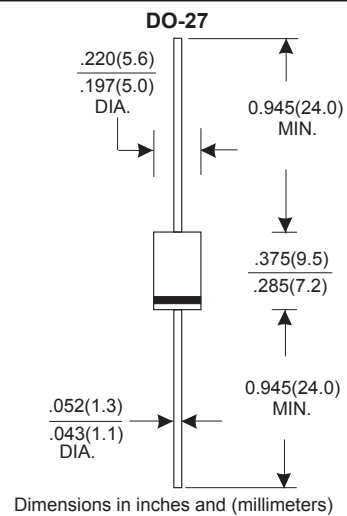
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.10 grams
- * Both normal and Pb free product are available:
- * Normal: 80~95%Sn, 5~20%Pb
- * Pb free: 99 Sn above can meet Rohs environment substance directive request

VOLTAGE RANGE

20 to 200 Volts

CURRENT

10.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	SB1020	SB1040	SB1045	SB1060	SB1080	SB10100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	40	45	60	80	100	V
Maximum RMS Voltage	14	28	31.5	42	56	70	V
Maximum DC Blocking Voltage	20	40	45	60	80	100	V
Maximum Average Forward Rectified Current	10.0						A
See Fig. 1							
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	250						A
Maximum Instantaneous Forward Voltage at 10.0A	0.50		0.65		0.76		V
Maximum DC Reverse Current Ta=25°C	100						uA
at Rated DC Blocking Voltage Ta=100°C	5						mA
Typical Junction Capacitance (Note1)	420						pF
Typical Thermal Resistance RθJA (Note 2)	12						°C/W
Operating Temperature Range Tj	-65 — +150						°C
Storage Temperature Range Tstg	-65 — +150						°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (SR1020 THRU SR10100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

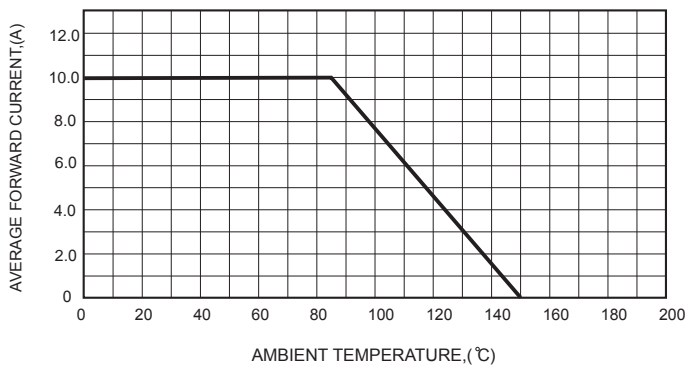


FIG.2-TYPICAL FORWARD CHARACTERISTICS

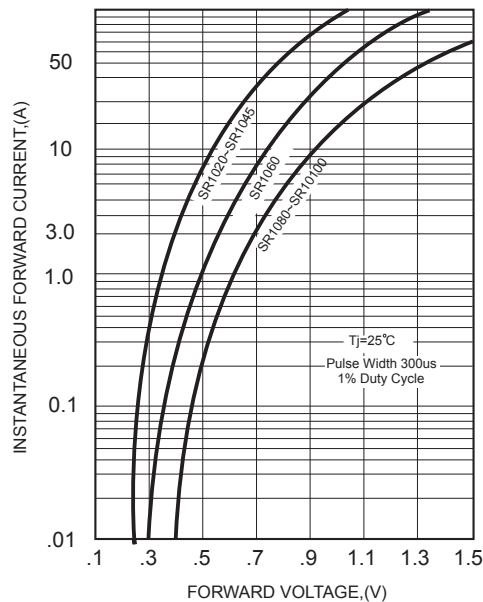


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

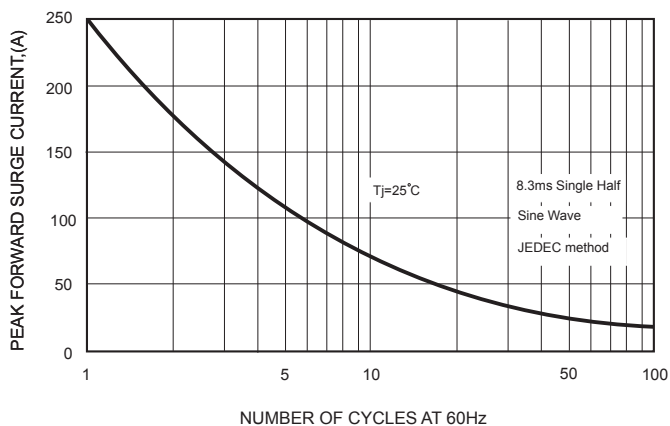


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

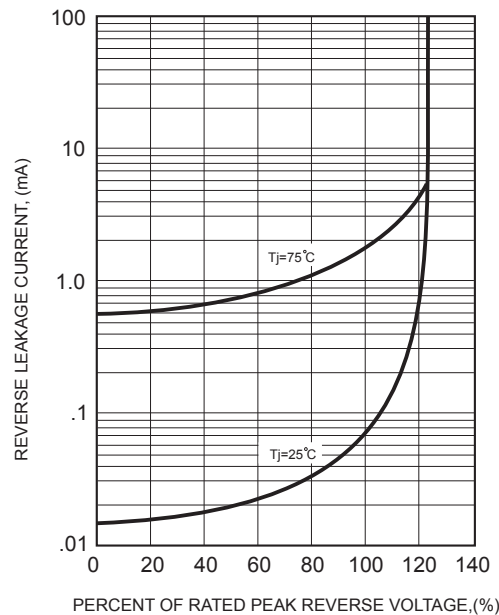


FIG.4-TYPICAL JUNCTION CAPACITANCE

