

SB520 THRU SB5200

5.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

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

MECHANICAL DATA

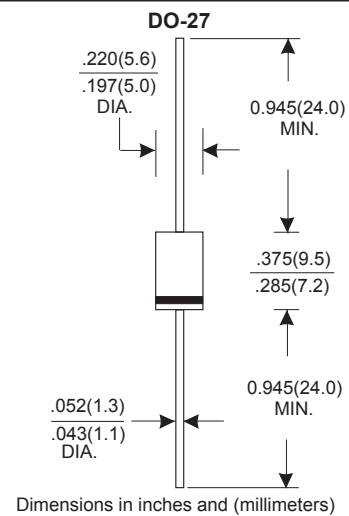
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 1.10 grams
- * Both normal and Pb free product are available:
- * Normal: 80~95%Sn,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

VOLTAGE RANGE

20 to 200 Volts

CURRENT

5.0 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	SB520	SB530	SB540	SB560	SB580	SB5100	SB5100	SB5200	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	45	60	80	100	150	200	V
Maximum RMS Voltage	14	21	32	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	30	45	60	80	100	150	200	V
Maximum Average Forward Rectified Current									
See Fig. 1	5.0								A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150								A
Maximum Instantaneous Forward Voltage at 5.0A	0.55		0.70		0.85				V
Maximum DC Reverse Current Ta=25℃	200								uA
at Rated DC Blocking Voltage Ta=100℃	20								mA
Typical Junction Capacitance (Note1)	380								pF
Typical Thermal Resistance RθJA (Note 2)	10								℃/W
Operating Temperature Range Tj	-65 — +125		-65 — +150						℃
Storage Temperature Range Tstg	-65 — +150								℃

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 (SB520 THRU SB5200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

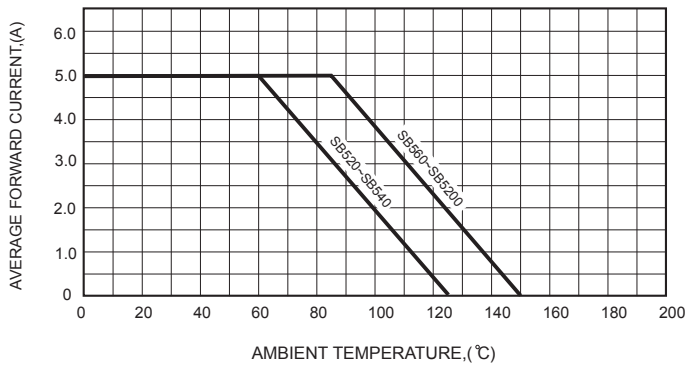


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

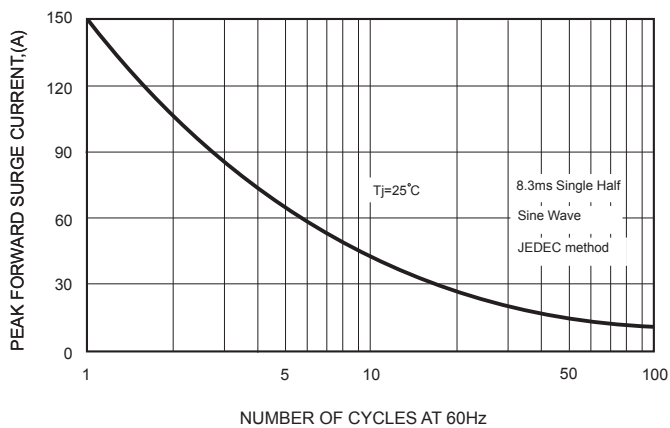


FIG.4-TYPICAL JUNCTION CAPACITANCE

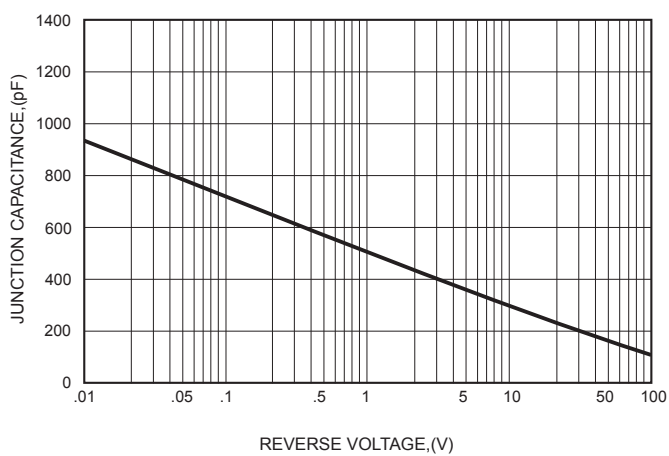


FIG.2-TYPICAL FORWARD CHARACTERISTICS

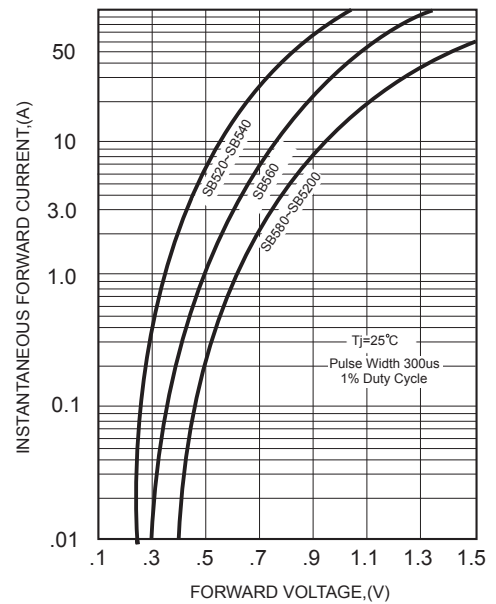


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

