

# 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

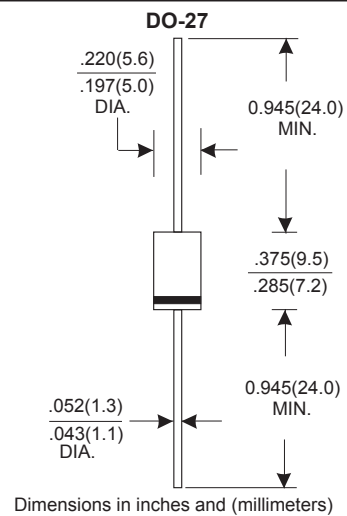
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 1.10 grams
- \* Both normal and Pb free product are available:
- \* Normal: 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 at Rated DC Blocking Voltage	200				20				uA mA
Typical Junction Capacitance (Note1)	380								pF
Typical Thermal Resistance RθJA (Note 2)	10								°C/W
Operating Temperature Range T <sub>J</sub>	-65 — +125				-65 — +150				°C
Storage Temperature Range T <sub>STG</sub>	-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 (SB520 THRU SB5200)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

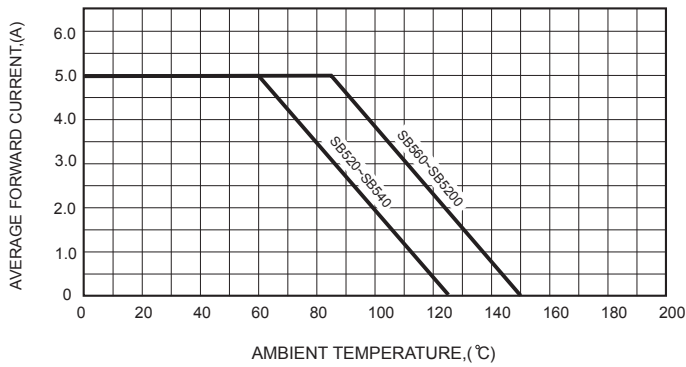


FIG.2-TYPICAL FORWARD CHARACTERISTICS

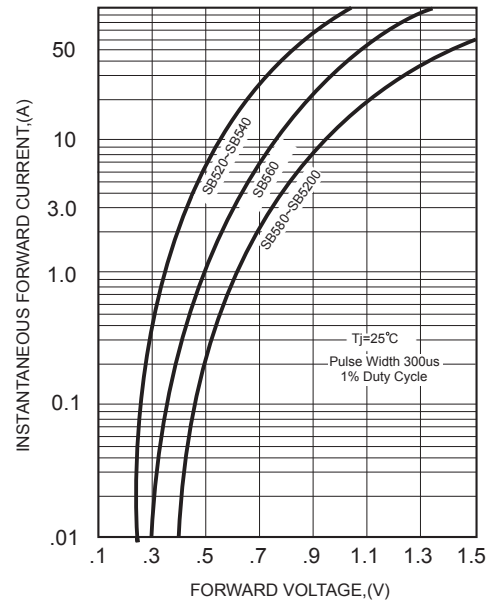


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

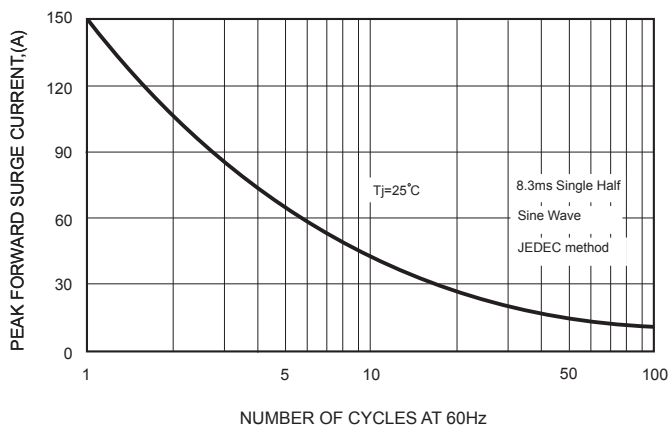


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

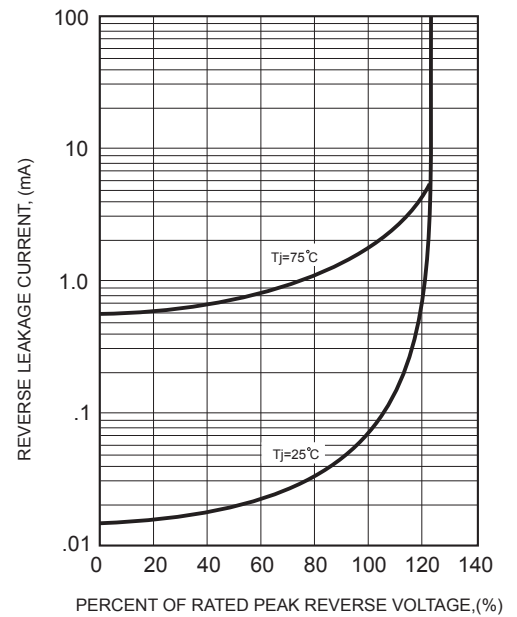


FIG.4-TYPICAL JUNCTION CAPACITANCE

