



### FEATURES

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

### MECHANICAL DATA

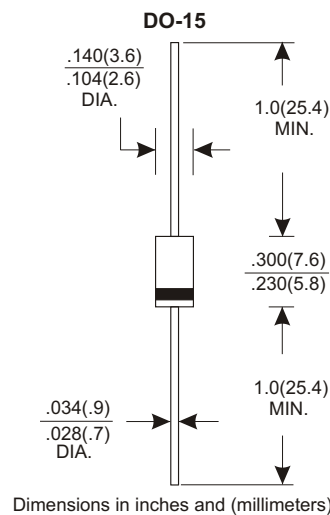
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.34 grams

### VOLTAGE RANGE

20 to 100 Volts

### CURRENT

2.0 Ampere



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

Parameter	Symbols	SB220	SB230	SB240	SB250	SB260	SB280	SB2100	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	80	100	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length	$I_{F(AV)}$	2							A
Peak Forward Surge Current, 8.3 ms Single half-Sine-Wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50							A
Maximum Forward Voltage at 2 A	$V_F$	0.55			0.7		0.85		V
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1 5					0.02 2		mA
Typical Junction Capacitance <sup>1)</sup>	$C_J$	180							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{\theta JA}$	45							°C/W
Operating Junction Temperature Range	$T_J$	- 55 to + 150							°C
Storage Temperature Range	$T_{stg}$	- 55 to + 150							°C

<sup>1)</sup> Measured at 1 MHz and applied reverse voltage of 4 V DC.

<sup>2)</sup> Thermal Resistance from Junction to Ambient 0.375" (9.5 mm) lead length P.C.B. mounted.

# SB220 THRU SB2100

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

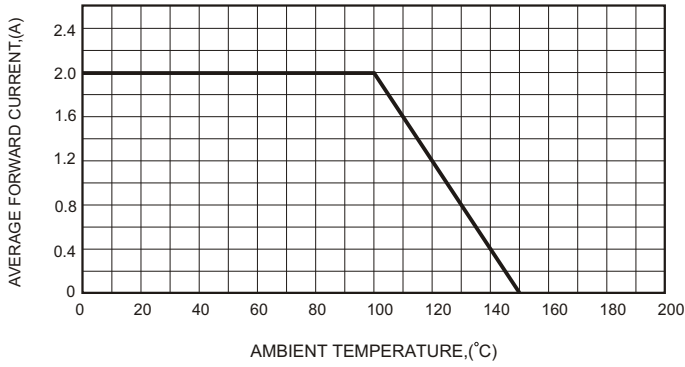


FIG.2-TYPICAL FORWARD CHARACTERISTICS

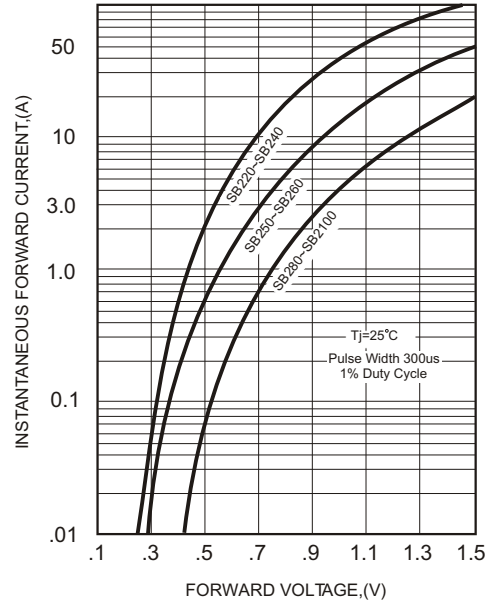


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

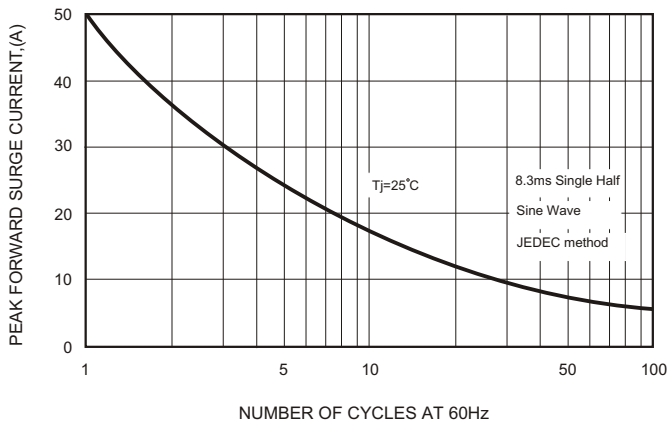


FIG.4-TYPICAL JUNCTION CAPACITANCE

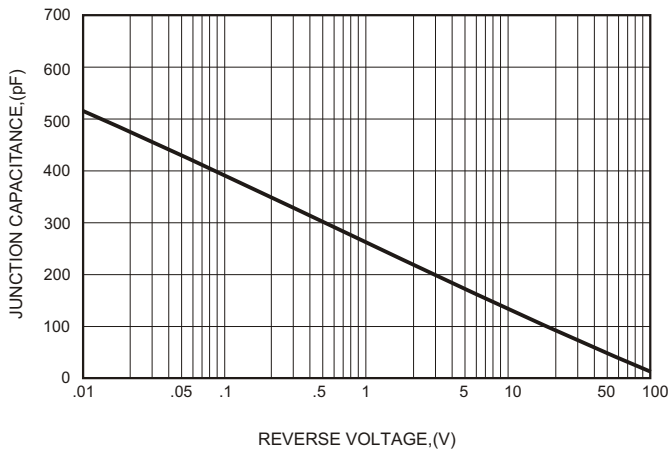


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

