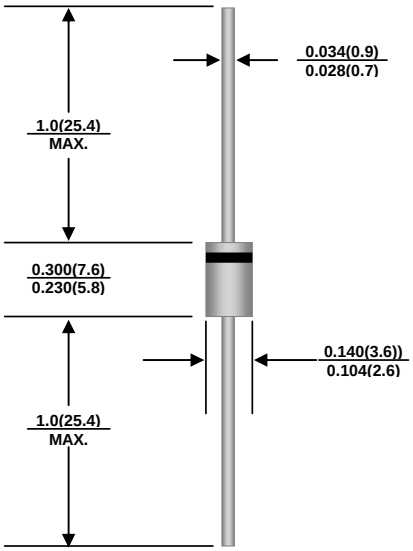
SB220 THRU SB2200

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 2.0 Ampere

DO-15



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0.
- Metal silicon junction,majority carrier conduction.
- Low power loss,high efficiency.
- High forward surge current capability.
- High temperature soldering guaranteed: 250 °C/10 seconds,0.375"(9.5mm) lead length,

MECHANICAL DATA

Case: JEDEC DO-15 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.014 ounce, 0.40 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOLS	SB 220	SB 230	SB 240	SB 250	SB 260	SB 270	SB 280	SB 290	SB2100	SB2150	SB2200	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	70	80	90	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	49	56	63	70	105	140	Volts
Maximum DC blocking voltage	V_R	20	30	40	50	60	70	80	90	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{F(AV)}$	2.0											Amp
Peak forward surge current at 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60.0											Amps
Maximum Forward Voltage at IF=2.0A	V_F	0.50			0.70		0.85				0.92		Volts
Maximum DC reverse current TA=25℃	I_R	0.5											mA
at rated DC blocking voltage TA=100℃		10.0					5.0						
Typical Junction Capacitance (NOTE 1)	C_J	220			150								pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	50											℃/W
Operating Junction Temperature Range	T_J	-65 to +125					-65 to +150						℃
Storage Temperature Range	T_{STG}	-65 ～ +150											℃

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Mounted with minimum recommended padsize，PCBoard FR4.
3. T_J=25℃ unless otherwise specified.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

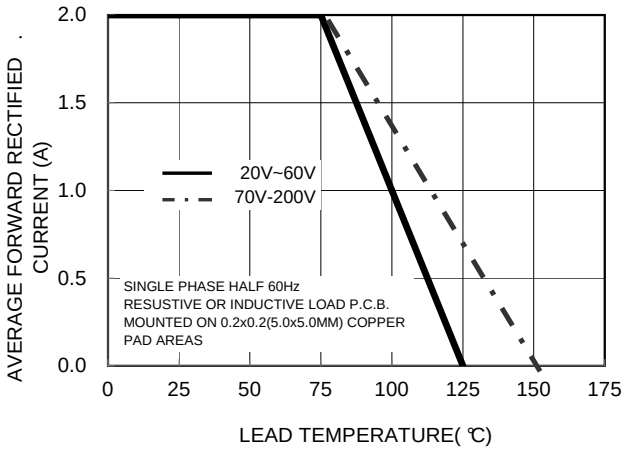

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

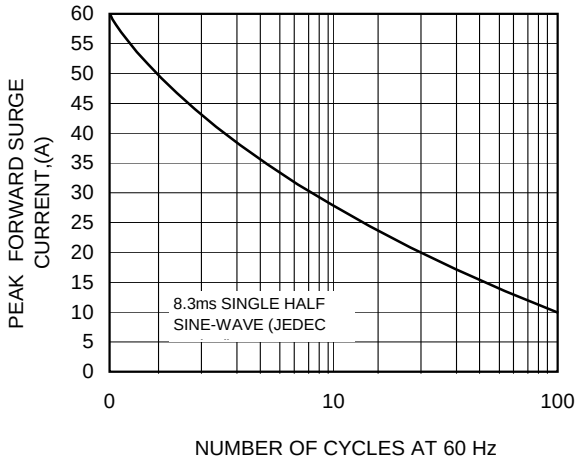

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

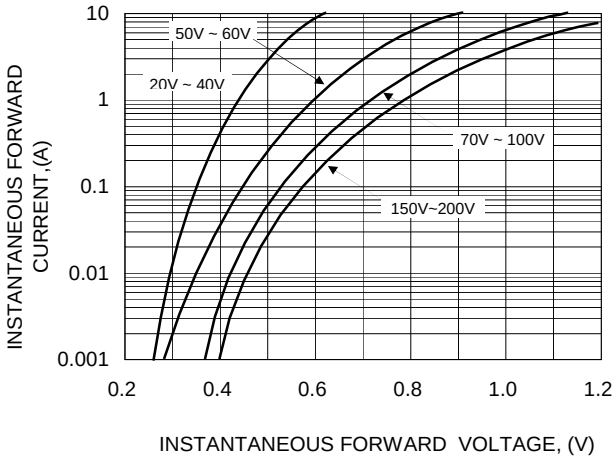

FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

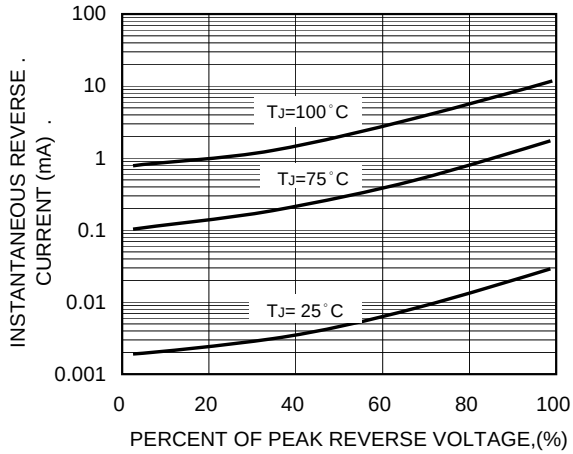

FIG. 5-TYPICAL JUNCTION CAPACITANCE

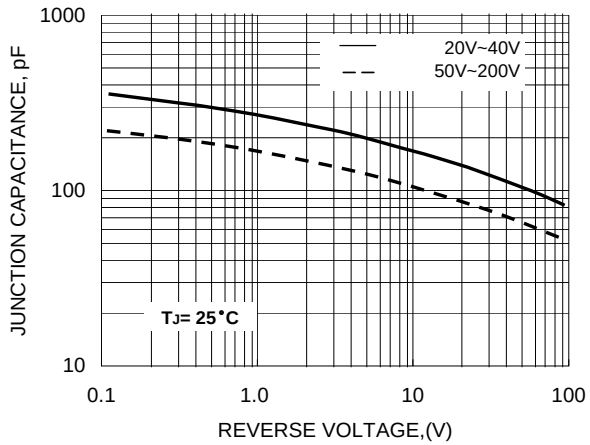

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE