

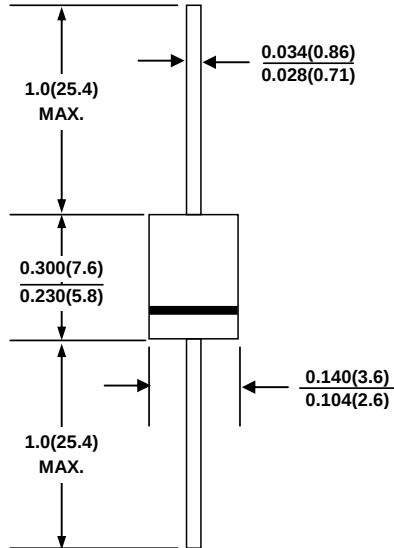


SB220E THRU SB2200E

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, 5 lbs. (2.3kg) tension
- ◆ ESD Passed devices : Air mode 15KV , human body mode 8KV

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°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

PARAMETER	SYMBOLS	SB220E	SB240E	SB260E	SB280E	SB290E	SB2100E	SB2150E	SB2200E	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	90	100	150	200	Volts
Maximum RMS voltage	V _{RMS}	14	28	42	56	63	70	105	140	Volts
Maximum DC blocking voltage	V _R	20	40	60	80	90	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	I _(AV)	2.0								Amp
Peak forward surge current 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	0.5		0.70	0.85			0.92		Volts
Maximum DC reverse current at rated DC blocking voltage	I _R	0.5								mA
		10.0			5.0					
Typical Junction Capacitance (NOTE 1)	C _J	220		80						pF
Typical Thermal Resistance (NOTE 2)	R _{θJA}	50								°C/W
Operating Junction Temperature Range	T _J	-65 to +125			-65 to +150					°C
Storage Temperature Range	T _{STG}	-50 ~ +150								°C

- Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Mounted with minimum recommended padsize , PCBoard FR4.
 3. $T_J=25^{\circ}C$ unless otherwise specified.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

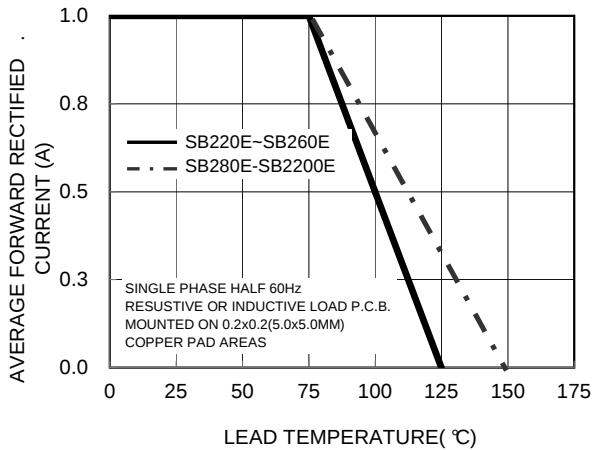


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

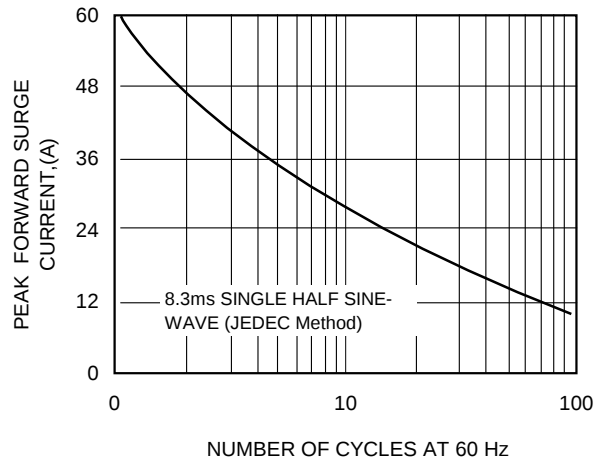


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

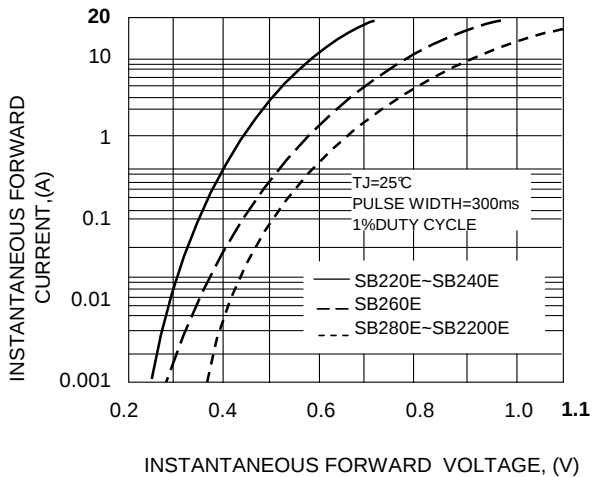


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

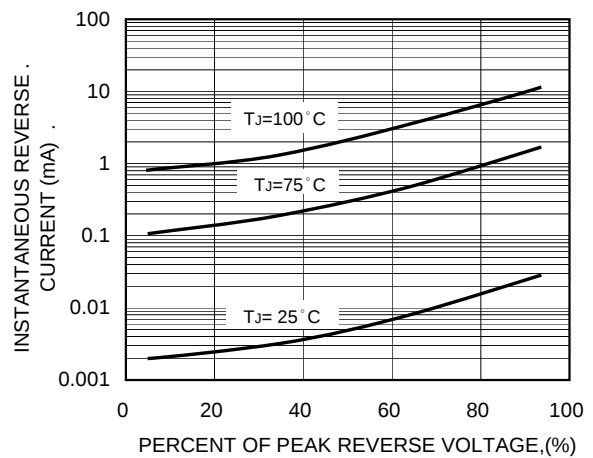


FIG. 5-TYPICAL JUNCTION CAPACITANCE

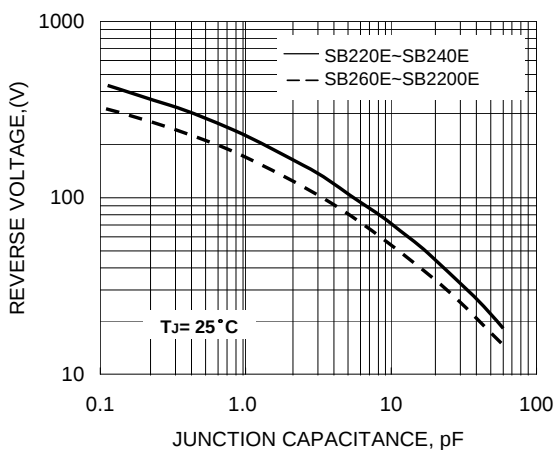


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

