



SB220L THRU SB2100L

SCHOTTKY BARRIER RECTIFIER

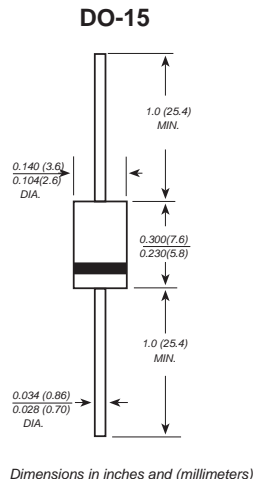
Reverse Voltage - 20 to 100 Volts Forward Current - 2.0 Ampere

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:
260°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

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%.

	SYMBOLS	SB220L	SB230L	SB240L	SB250L	SB260L	SB280L	SB2100L	UNITS		
Maximum repetitive 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" (9.5mm) lead length (see fig.1)	$I_{(AV)}$	2.0							A		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	60.0							A		
Maximum instantaneous forward voltage at 2.0A	V_F	0.45			0.50		0.70		V		
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	I_R	0.5				0.2		mA			
		10.0				5.0					
Typical junction capacitance (NOTE 1)	C_J	220			80				pF		
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	50.0								°C/W	
Operating junction temperature range	T_J	-55 to +125					-55 to +150				°C
Storage temperature range	T_{STG}	-55 to +150								°C	

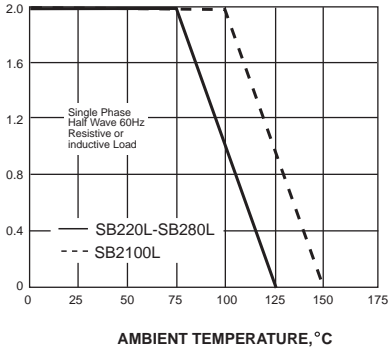
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted



RATINGS AND CHARACTERISTIC CURVES SB220L THRU SB2100L

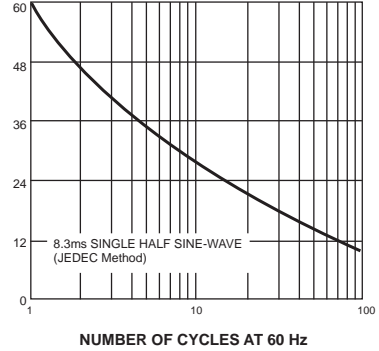
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



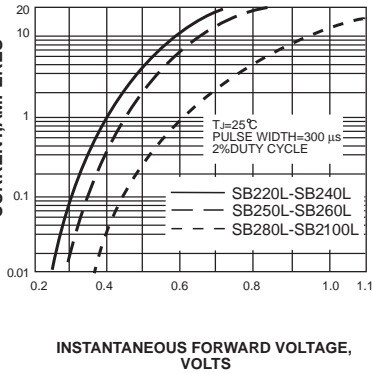
PEAK FORWARD SURGE CURRENT,
AMPERES

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



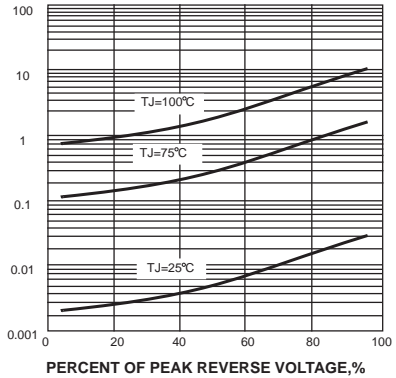
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



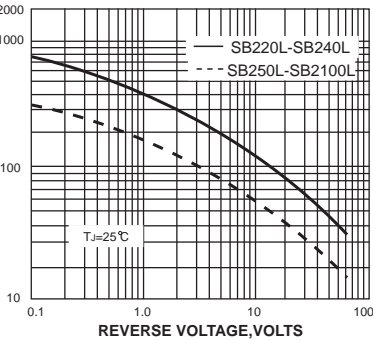
INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



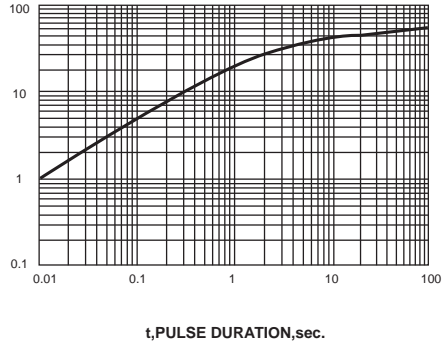
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t, PULSE DURATION, sec.