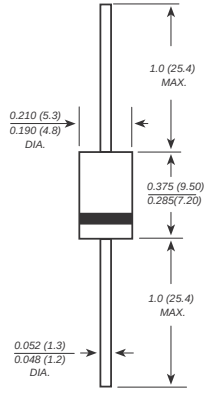
SB5150 THRU SB5200

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 150 to 200 Volts Forward Current - 5.0 Amperes

DO-201AD



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℃/10 seconds,0.375″(9.5mm) lead length,
  5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-201AD molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight:0.04 ounce, 1.10 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	**SB5150**	**SB5200**	**UNITS**
Maximum repetitive peak reverse voltage	V_{RRM}	150	200	VOLTS
Maximum RMS voltage	V_{RMS}	105	140	VOLTS
Maximum DC blocking voltage	V_{DC}	150	200	VOLTS
Maximum average forward rectified current 0.375″(9.5mm) lead length(see fig.1)	$I_{(AV)}$	5.0		Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0		Amps
Maximum instantaneous forward voltage at 5.0A	V_F	0.92	0.95	Volts
Maximum DC reverse current T_A=25 C	I_R	0.5		mA
at rated DC blocking voltage T_A=100 C		20		
Typical junction capacitance (NOTE 1)	C_J	400		pF
Typical thermal resistance (NOTE 2)	R_{JA}	25.0		C/W
Operating junction temperature range	T_J	-65 to +150		C
Storage temperature range	T_{STG}	-65 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 SB5150 THRU SB5200

FIG. 1- FORWARD CURRENT DERATING CURVE

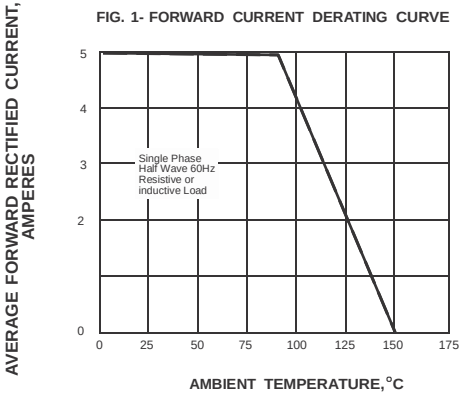


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

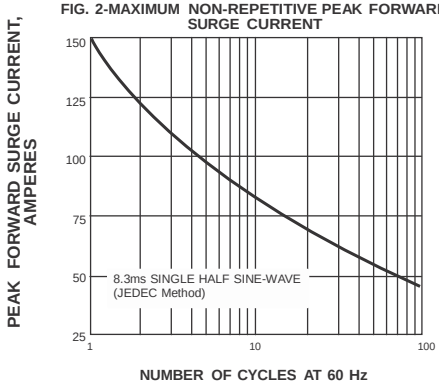


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

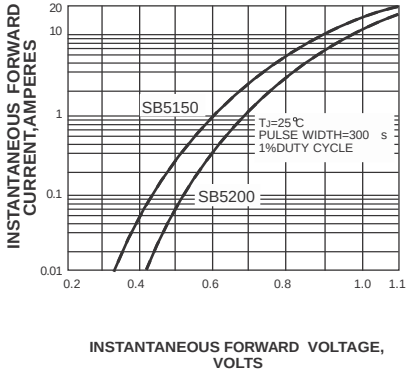


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

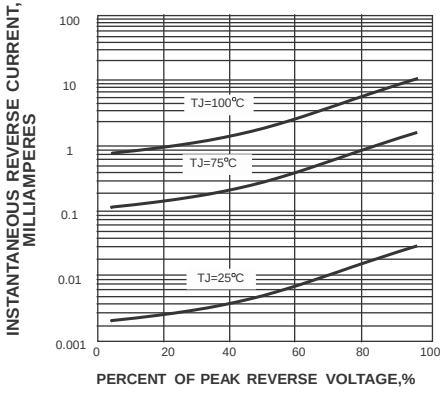


FIG. 5-TYPICAL JUNCTION CAPACITANCE

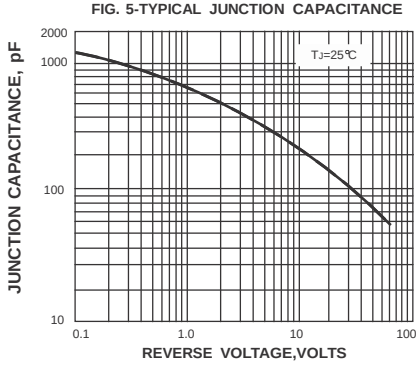


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE