

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 20 --- 200 V
CURRENT: 3.0 A

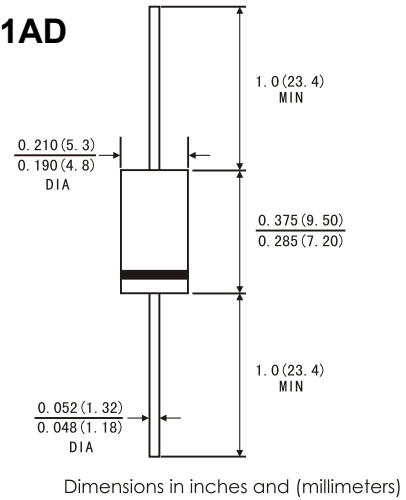
FEATURES

- ◇ Metal-Semiconductor junction with guard ring
- ◇ Epitaxial construction
- ◇ Low forward voltage drop, low switching losses
- ◇ High surge capability
- ◇ For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case: JEDEC DO-201AD, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

DO - 201AD



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

		Symbols	SB 320	SB 330	SB 340	SB 350	SB 360	SB 380	SB 3A0	SB 3150	SB 3200	Units
Maximum repetitive peak reverse voltage		V _{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage		V _{RMS}	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage		V _{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)		I(AV)	3.0									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	80.0									Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)		V _F	0.55			0.70		0.85		0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _A =25°C	I _R	0.2									mA
	T _A =100°C		20			10						
Typical junction capacitance(Note 3)		C _J	250			160						pF
Typical thermal resistance (Note 2)		R _{θJA} R _{θJL}	40.0 10.0									°C/W
Operating junction temperature range		T _J	-65 to+150									°C
Storage temperature range		T _{STG}	-65 to+150									°C

NOTE: 1. Pulse test: 300us pulse width, 1% duty cycle.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance junction to ambient

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FIG.1-FORWARD CURRENT DERATING CURVE

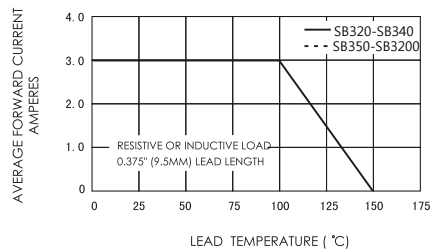


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

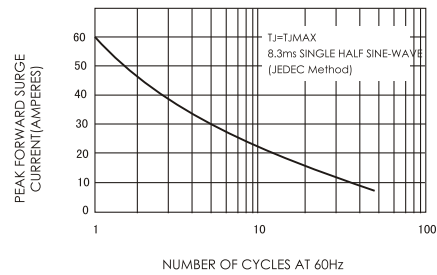


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

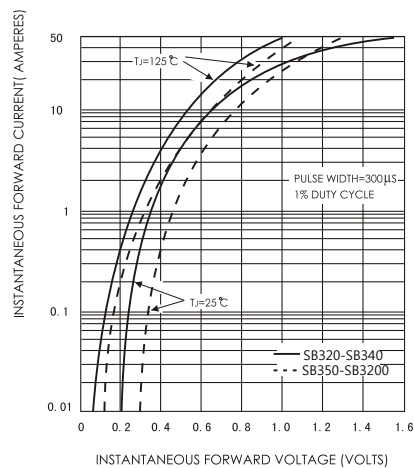


FIG.4-TYPICAL REVERSE CHARACTERISTICS

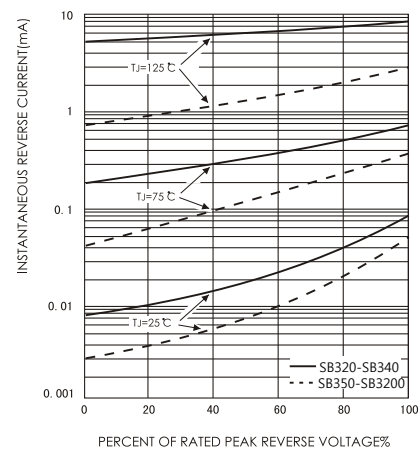


FIG.5-TYPICAL JUNCTION CAPACITANCE

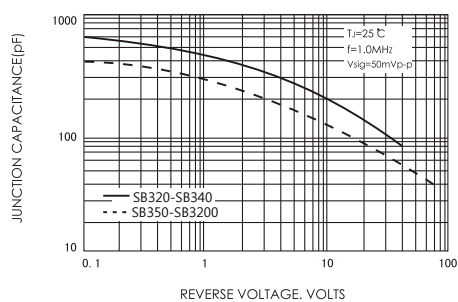


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

