SCHOTTKY BARRIER RECTIFIER

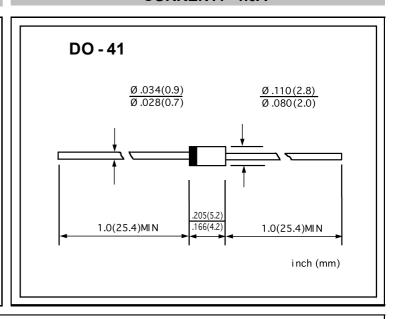
VOLTAGE RANGE: 20 --- 100 V CURRENT: 1.0A

FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- High surge capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

MECHANICAL DATA

- Polarity: Color band denotes cathode
- ♦ Weight: 0.012 ounces, 0.34 grams
- ♦ Mounting position: Any



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

		Symbols	SB 120	SB 130	SB 140	SB 150	SB 160	SB 180	SB 1A0	SB 1150	SB 1200	Units
Maximum repetitive peak reverse voltage		Vrrm	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage		Vrms	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage		VDC	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)	1.0									Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		IFSM	40.0									Amps
Maximum instantaneous forward voltage at 1.0 A(Note 1)		VF	0.55 0.70 0.85 0.90 0.95				0.95	Volts				
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T, =25°C	l _R	0.2									mA
	T _A =100°C	IR	10									
Typical junction capacitance(Note 3)		Сл	110									РF
Typical thermal resistance(Note 2)		R⊕ja R⊕jl	50.0 15.0									°C/W
Operating junction temperature range		TJ	-65 to+150									.C
Storage temperature range		Tstg	-65 to+150									°C

NOTE: 1. Pulse test: 300 μs 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

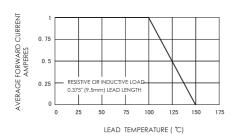


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

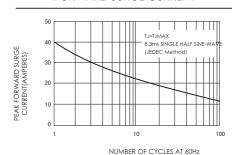


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

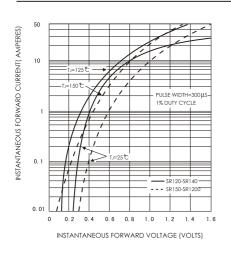


FIG.4-TYPICAL REVERSE CHARACTERISTICS

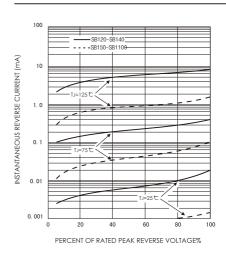


FIG.5-TYPICAL JUNCTION CAPACITANCE

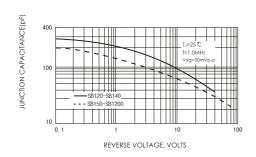
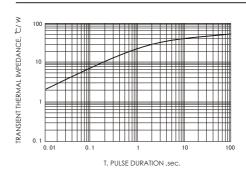


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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