

SCHOTTKY BARRIER RECTIFIERS

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

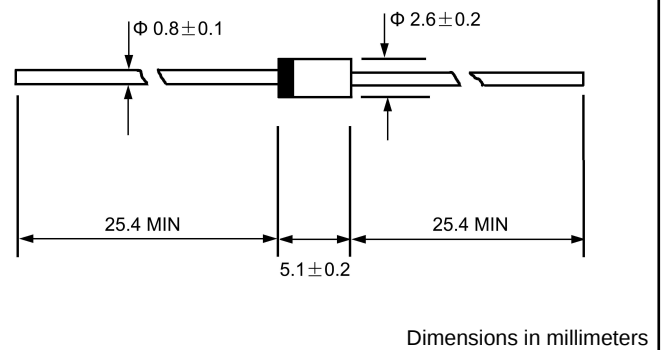
FEATURES

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-41, molded plastic
Terminals: Axial lead, solderable per MIL-STD-202, Method 208
Polarity: Color band denotes cathode
Weight: 0.012 ounces, 0.34 grams
Mounting position: Any

DO - 41



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%.

		SB 120	SB 130	SB 140	SB 150	SB 160	SB 170	SB 180	SB 190	SB 1100	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V
Maximum average forward rectified current 9.5mm lead length, (see fig.1)	I _{F(AV)}	1.0									A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I _{FSM}	40.0									A
Maximum instantaneous forward voltage @ 1.0A	V _F	0.55			0.7		0.85			V	
Maximum reverse current @T _A =25 at rated DC blocking voltage @T _A =100	I _R	0.5									mA
		10.0			5.0						
Typical junction capacitance (Note1)	C _J	110			80			pF			
Typical thermal resistance (Note2)	R _{θJA}	50									/W
Operating junction temperature range	T _J	- 55 --- + 125			- 55 --- + 150						
Storage temperature range	T _{STG}	- 55 --- + 150									

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance junction to ambient

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FIG.1 – FORWARD CURRENT DERATING CURVE

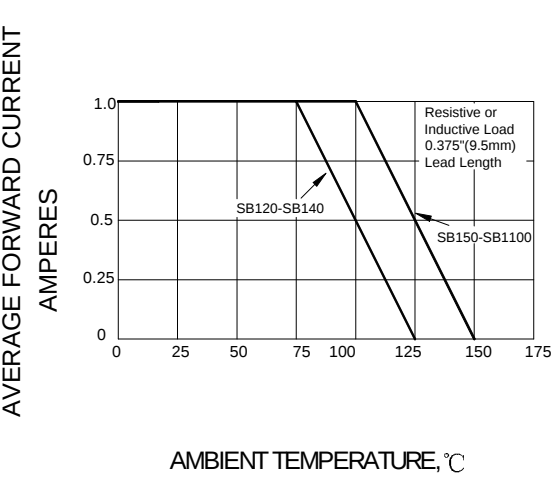


FIG.2 –MAXIMUM NON-REPETITIVE
PEAK FORWARD SURGE CURRENT

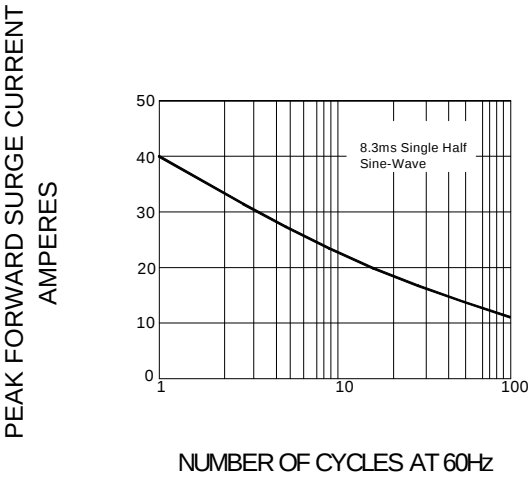


FIG.3 –TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

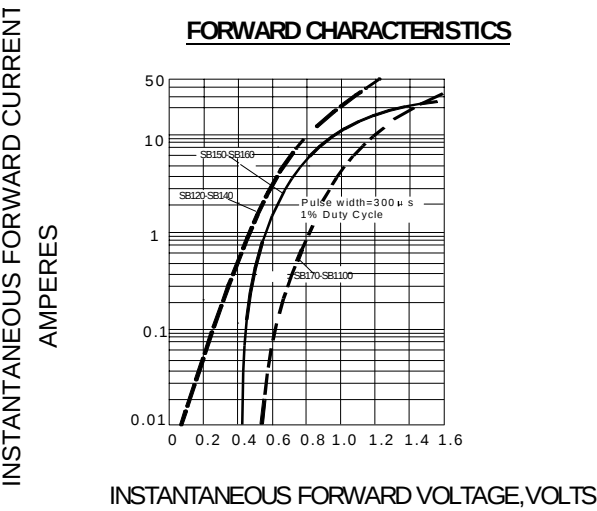


FIG.4–TYPICAL REVERSE CHARACTERISTICS

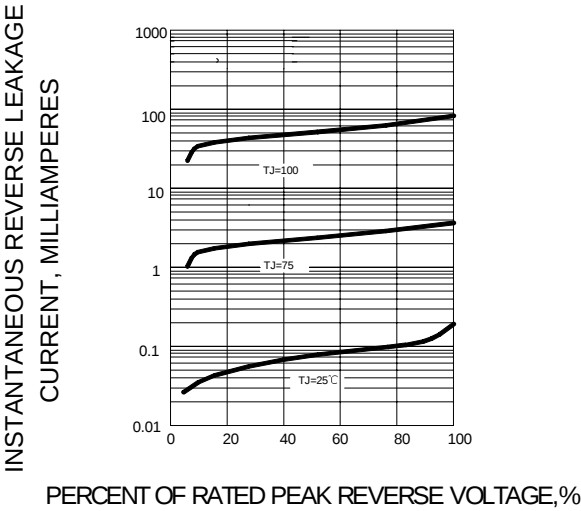


FIG.5–TYPICAL JUNCTION CAPACITANCE

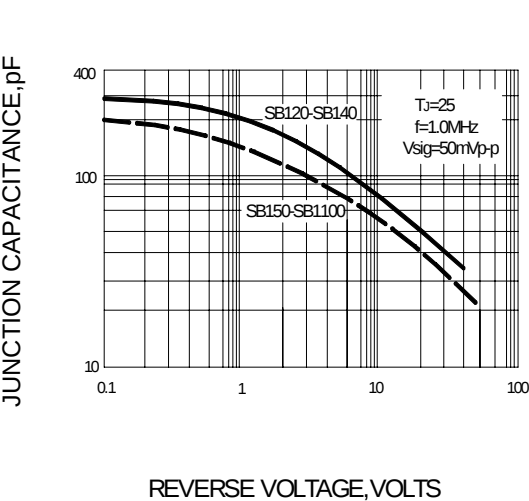


FIG.6–TYPICAL TRANSIENT THERMAL IMPEDANCE

