

SB3T100

3.0AMPS. SCHOTTKY BARRIER RECTIFIERS

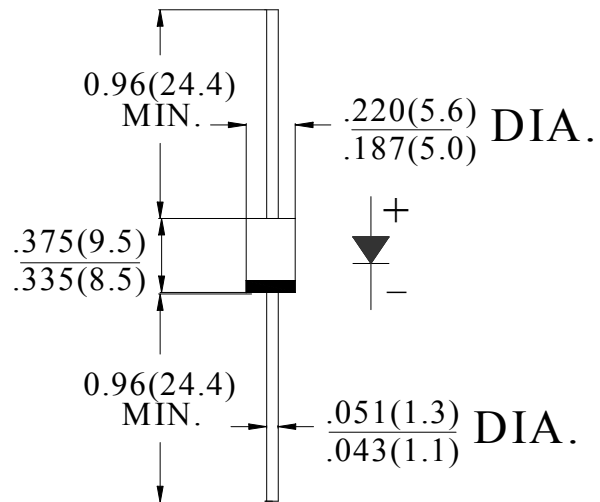
FEATURE

- . For surface mounted application
- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge current capability
- . High temperature soldering guaranteed:
260°C/10 seconds at terminals.

MECHANICAL DATA

- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy (free halogen)
- . Polarity: color band denotes cathode
- . Mounting position: any

DO-27/DO-201AD



Dimensions in inches and (millimeters)

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

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$ unless otherwise noted)

Parameter	SYMBOL	SB3T100	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum RMS Voltage	V_{RMS}	70	V
Maximum DC blocking Voltage	V_{DC}	100	V
Average Forward Rectified Current at $T_L \leq 100^\circ\text{C}$	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	80	A
Typical Junction Capacitance (Note1)	C_J	340	pF
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	T_J	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

Parameter	SYMBOL	Min	Typ	Max	units
Instantaneous Forward voltage at 3A	V_F	-----	0.56	0.6	V
		@ $T_J=25^\circ\text{C}$			
		@ $T_J=125^\circ\text{C}$	0.54	-----	
reverse current at rated DC blocking voltage	I_R	----	----	0.2	mA
		@ $T_J=25^\circ\text{C}$			
		@ $T_J=125^\circ\text{C}$		20.0	

THERMAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ unless otherwise noted)

Thermal Characteristic	SYMBOL	SB3T100	units
Typical Thermal Resistance (Note2)	$R_{(JA)}$	48	$^\circ\text{C}/\text{W}$
	$R_{(JC)}$	14	

Note:

1. $T_J=25^\circ\text{C}$, $V_R = 4V_{DC}@1\text{Mhz}$
2. Measured on P.C.Board with 15.0mm*15.0mm*1.6mm Copper Pad Areas

RATING AND CHARACTERISTIC CURVES (SB3T100)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

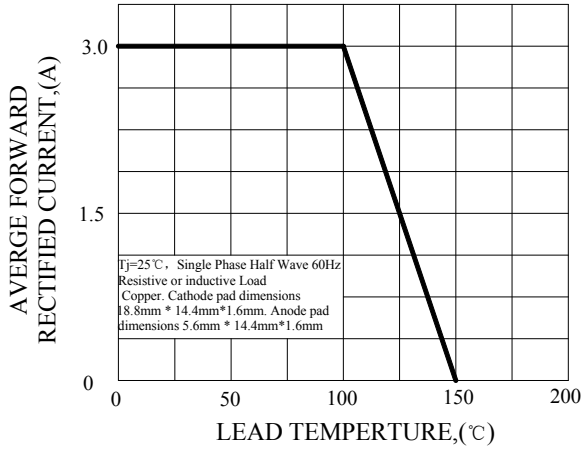


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

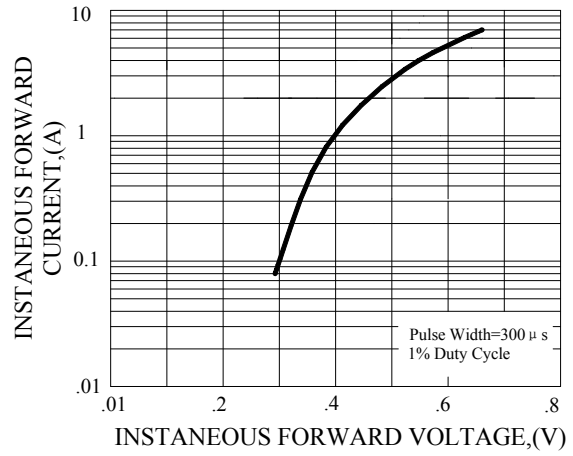


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

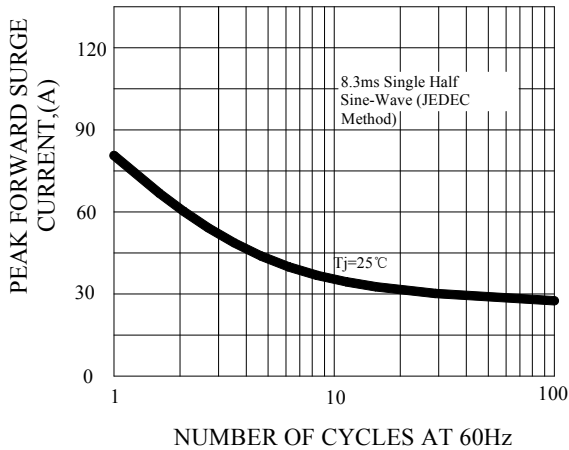


FIG.4-TYPICAL REVERSE CHARACTERISTICS

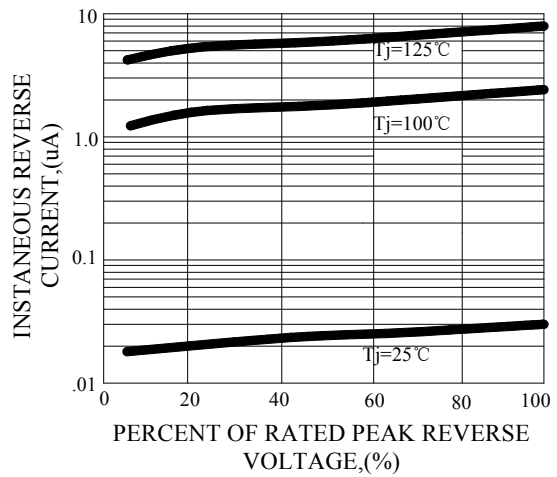


FIG.5-TYPICAL JUNCTION CAPACITANCE

