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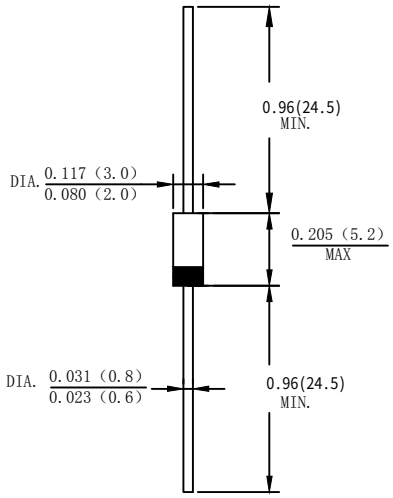
SB140L THRU SB1200L

1.0 AMP. LOW VF Schottky Barrier Rectifiers

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.
- Guard ring for overvoltage protection
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- High surge capability

DO-41



Dimensions in inches and (millimeters)

Mechanical Data

- Case: Molded plastic DO-41
- Terminals: Plated leads solderable per MIL-STD-202,Method 208 guaranteed
- Polarity: Color band dentes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified

Single phase,half wave,60Hz,resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	SB 140L	SB 145L	SB 150L	SB 160L	SB 180L	SB 1100L	SB 1150L	SB 1200L	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	150	200	V
Average Rectified Output Current (Note 1) @T_A=75℃	I_O	1.0								A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40								A
Forward Voltage @IF=1.0A	V_{FM}	0.45			0.5	0.75		0.85		V
Peak Reverse Current @T_A=25℃	I_R	0.1				0.05				mA
At Rated DC Blocking Voltage @T_A=100℃		10.0				5.0				
Typical Junction Capacitance (Note 2)	C_J	110								pF
Typical Thermal Resistance Junction to Ambient(Note 1)	$R_{\theta JA}$	25								℃/W
Operating Temperature Range	T_J	-55 to + 150								℃
Storage Temperature Range	T_{STG}	-55 to + 150								℃

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

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FIG. 1 - FORWARD CURRENT DERATING CURVE

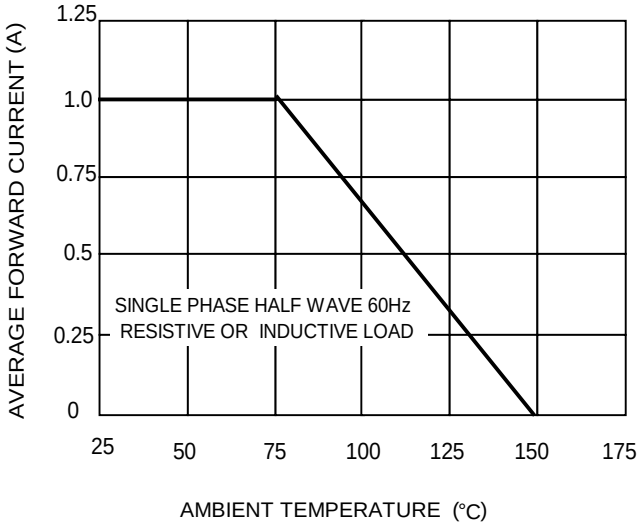


FIG.2-TYPICAL FORWARD CHARACTERISTICS

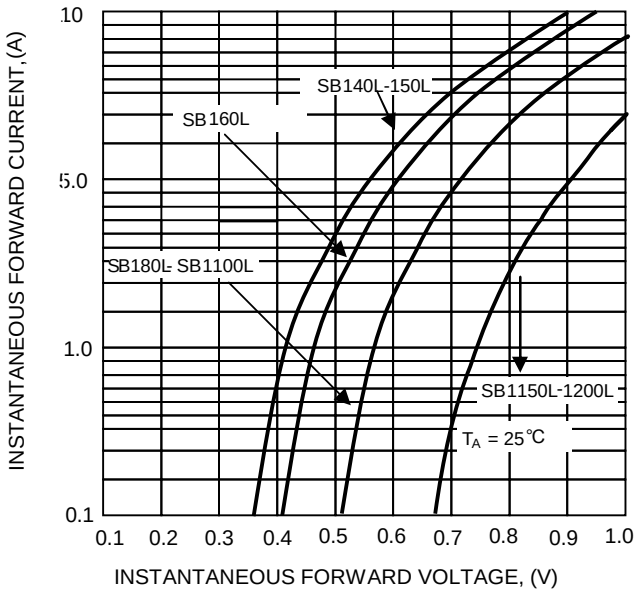


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

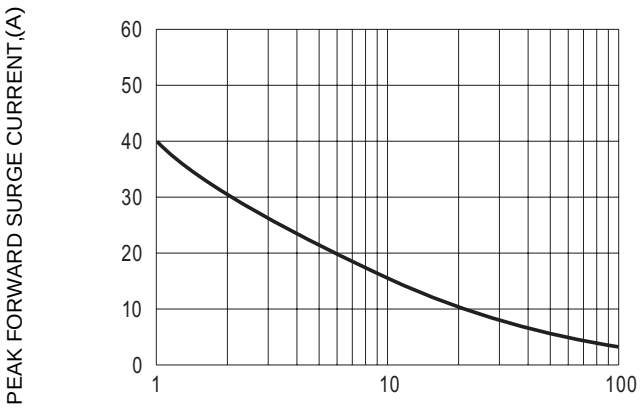


FIG.4 TYPICAL JUNCTION CAPACITANCE

