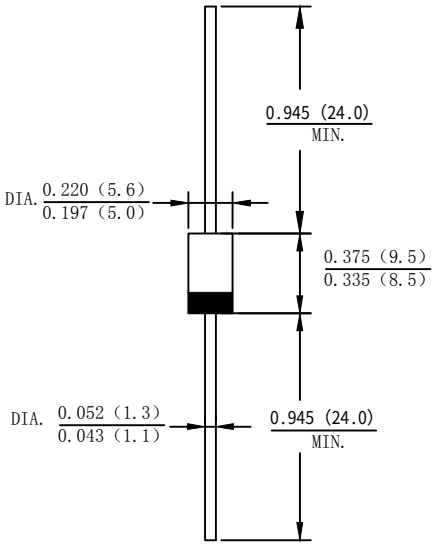
SB 540L THRU SB 5200L

5.0 AMP. LOW V F 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

Case: DO-201AD



Dimensions in inches and (millimeters)

Mechanical Data

- • Case: Molded plastic DO-201AD
- • 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 540L	SB 545L	SB 550L	SB 560L	SB 580L	SB 5100L	SB 5150L	SB 5200L	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 @T_L=100℃	$IF_{(AV)}$	5.0								A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed On Rated Load (JEDEC Method) @T_j=25 ℃ / @T_j=125 ℃	I_{FSM}	140 / 112								A
Non-Repetitive Peak Forward Surge Current 1.0ms Single half sine-wave Superimposed On Rated Load (JEDEC Method) @T_j=25 ℃ / @T_j=125℃	I_{FSM}	280 / 224								A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I_{FSM}	105								A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	81.34								A^2s
Forward Voltage @IF=5.0A	V_{FM}	0.45			0.5	0.6		0.85		V
Peak Reverse Current @T_A=25℃	I_R	0.2				0.1				mA
At Rated DC Blocking Voltage @T_A=100℃		10.0				5.0				
Typical Junction Capacitance (Note 1)	C_J	300				170				pF
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	50								℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150								℃

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Forward Current Derating Curve

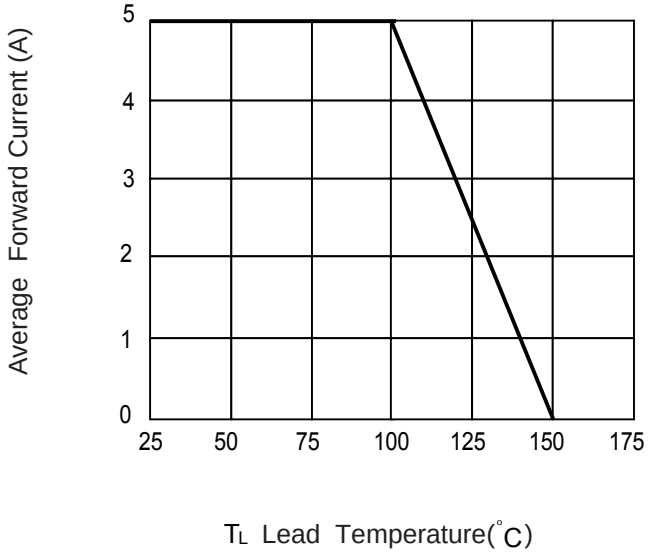


Fig. 2 Typ. Forward Characteristics

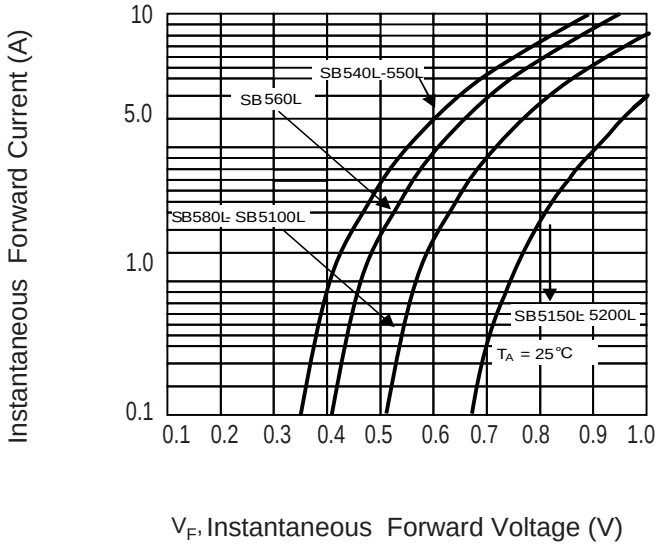


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

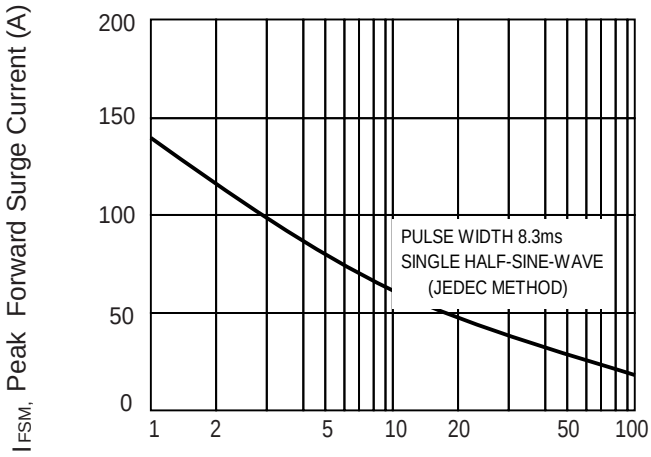
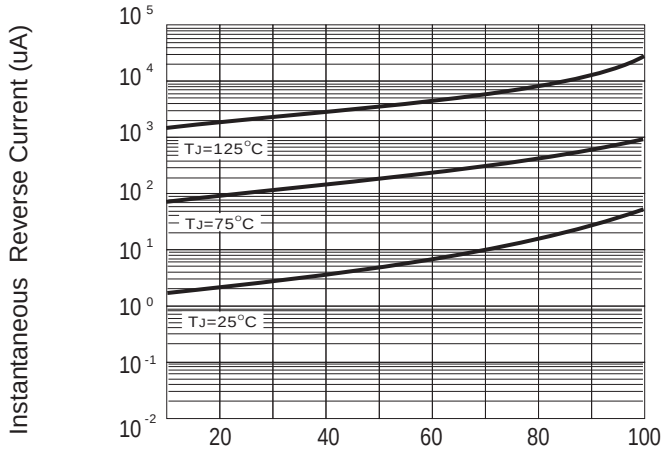


Fig.4 Typical Reverse Chracteristics



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