



SB 540L THRU SB 5200L

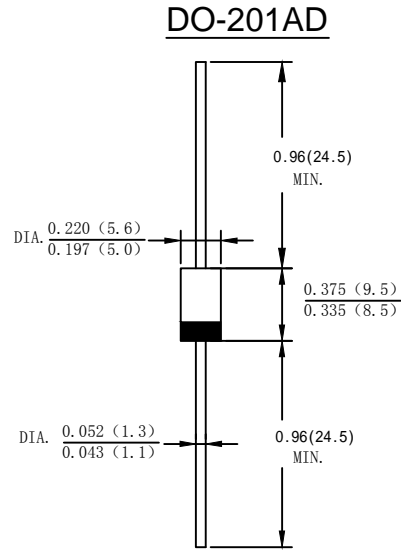
5.0 AMP. LOW VF Schottky Barrier Rectifiers

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

Mechanical Data

- Case: Molded plastic DO-201AD
- Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number
- Lead Free: For RoHS/Lead Free Version



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C 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 (Note 1) @ $T_L=100^\circ\text{C}$	$I_F(AV)$	5.0								A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	140								A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	81.34								A^2s
Forward Voltage @ $I_F=5.0\text{A}$	V_{FM}	0.45		0.5		0.6		0.85		V
Peak Reverse Current @ $T_A=25^\circ\text{C}$	I_R	0.2				0.1				mA
At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$		10.0				5.0				
Typical Junction Capacitance (Note 2)	C_J	500				350				pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	25								$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to + 150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150								$^\circ\text{C}$

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

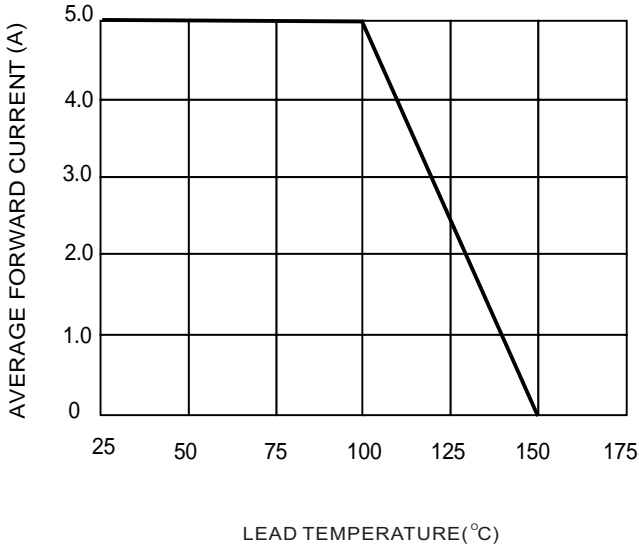


FIG.2-TYPICAL FORWARD CHARACTERISTICS

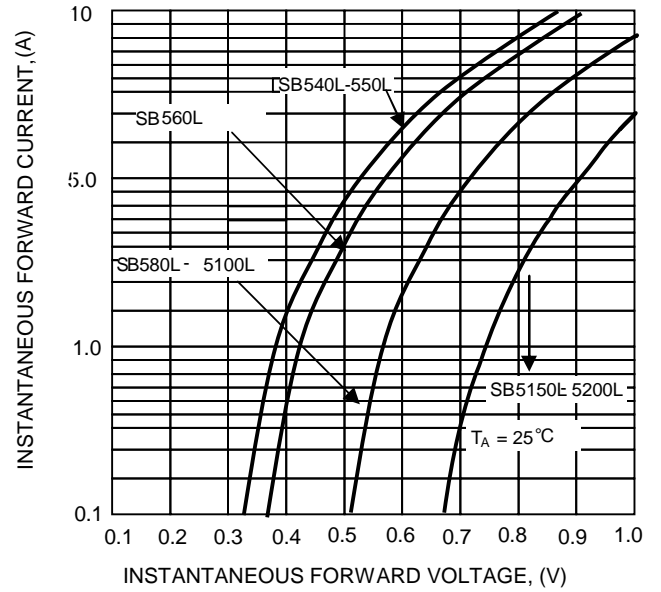


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

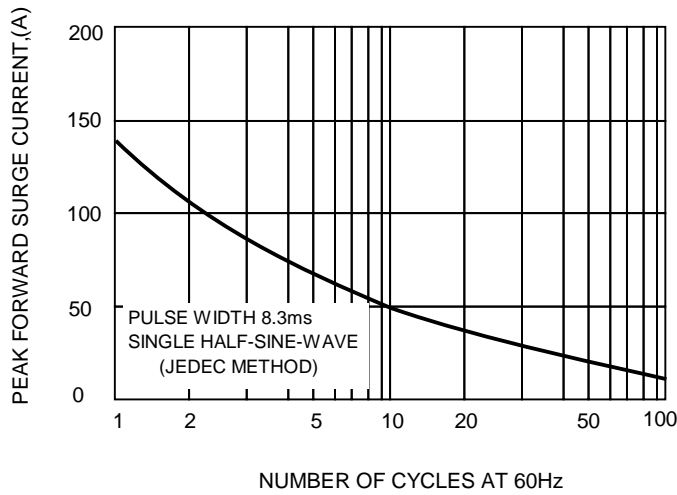


FIG.4 TYPICAL REVERSE CHARACTERISTIC

