



SB520U THRU SB5250U

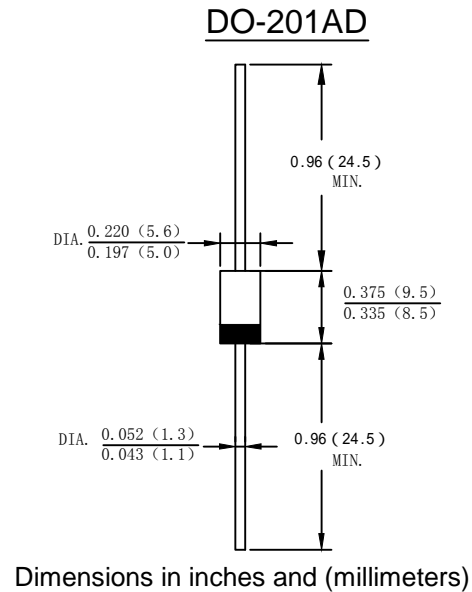
5.0 AMP. Schottky Barrier Rectifiers

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



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 520U	SB 530U	SB 540U	SB 545U	SB 550U	SB 560U	SB 580U	SB 5100U	SB 5150U	SB 5200U	SB 5250U	Unit	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	31.5	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current (Note 1) @ $T_A=95^\circ\text{C}$	I_O	5.0											A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	130											A	
Forward Voltage @ $I_F=5.0\text{A}$	V_{FM}	0.53			0.67			0.82		0.90		0.92	V	
Peak Reverse Current @ $T_A=25^\circ\text{C}$	I_R	0.2						0.05						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

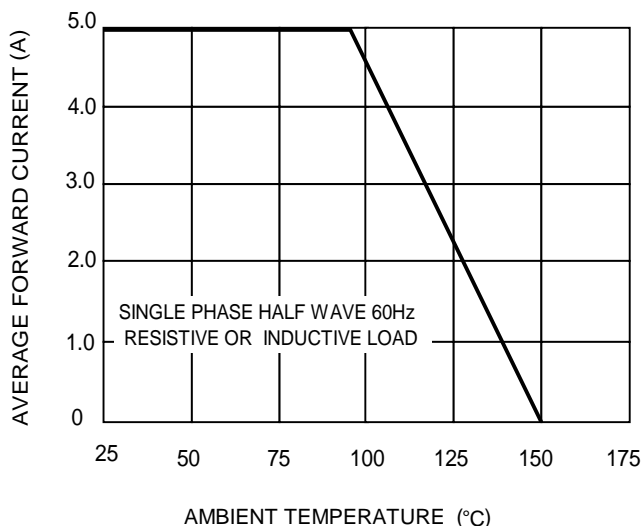


FIG.2-TYPICAL FORWARD CHARACTERISTICS

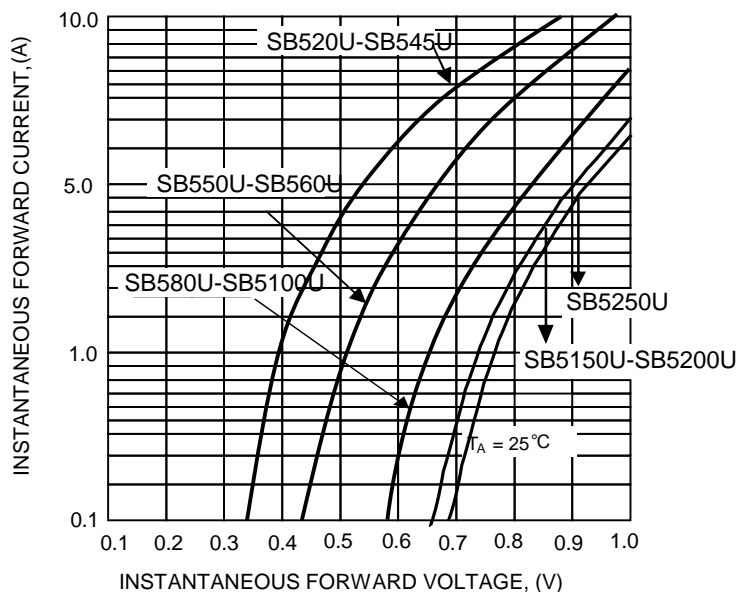


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

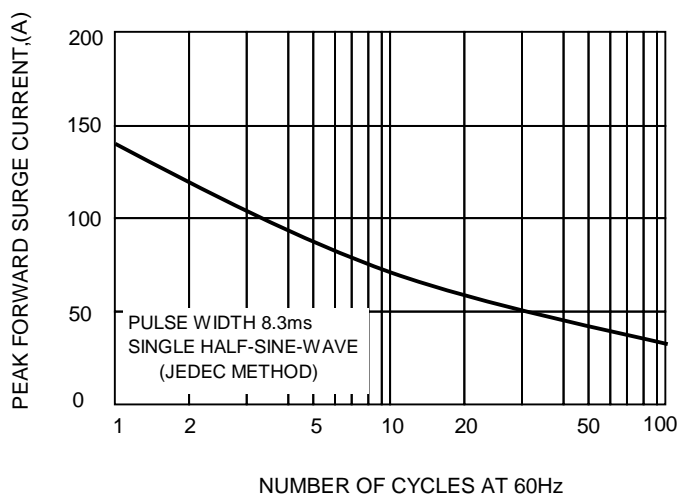


FIG.4 TYPICAL JUNCTION CAPACITANCE

