



# SB320U THRU SB3250U

## 3.0 AMP. Schottky Barrier Rectifiers

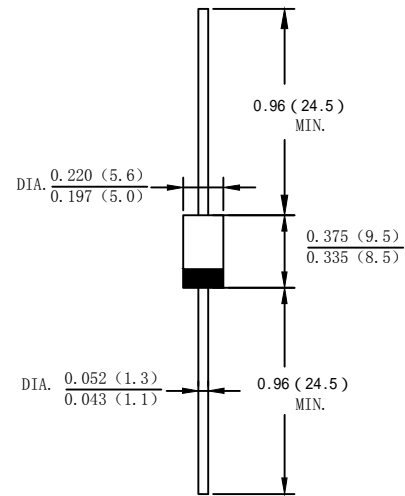
### Features

- 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

### DO-201AD



### 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 320U	SB 330U	SB 340U	SB 345U	SB 350U	SB 360U	SB 380U	SB 3100U	SB 3150U	SB 3200U	SB 3250U	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) @ $T_A=75^\circ\text{C}$	$I_o$	3.0											A	
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	90											A	
Forward Voltage @ $I_F=3.0\text{A}$	$V_{FM}$	0.50			0.67			0.82		0.90		0.92	V	
Peak Reverse Current @ $T_A=25^\circ\text{C}$	$I_R$	0.1						0.05						mA
At Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$		10.0						5.0						
Typical Junction Capacitance (Note 2)	$C_J$	250					160							pF
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	40											C/W	
Operating Temperature Range	$T_J$	-55 to + 150											°C	
Storage Temperature Range	$T_{STG}$	-55 to + 150											°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- MAXIMUM FORWARD CURRENT DERATING CURVE

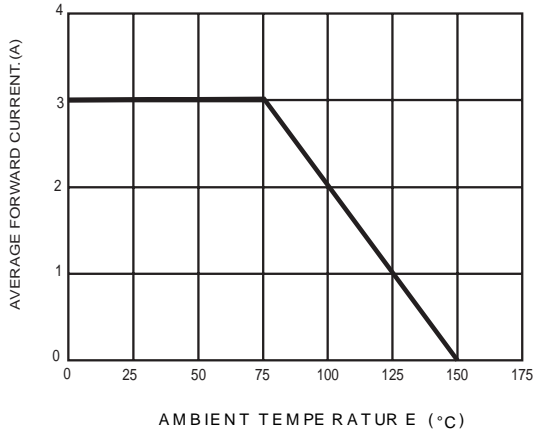


FIG.2- TYPICAL FORWARD CHARACTERISTICS

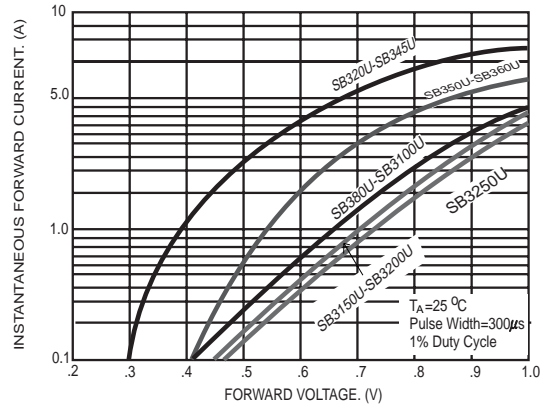


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

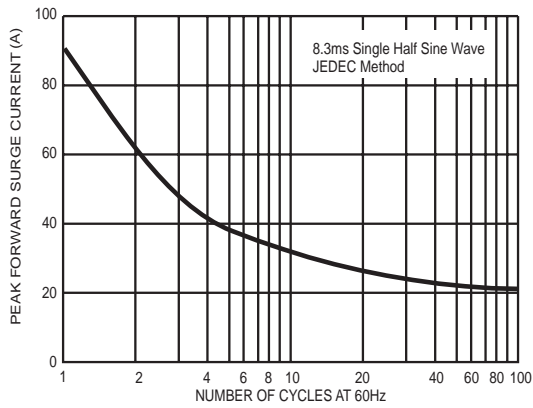


FIG.4- TYPICAL JUNCTION CAPACITANCE

