



# SB520 THRU SB5B0

## MEDIUM CURRENT SCHOTTKY BARRIER RECTIFIER

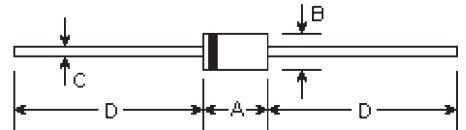
Reverse Voltage - 20 to 100 Volts

Forward Current - 5.0 Amperes

### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension

### DO-201AD



### Mechanical Data

- **Case:** DO-201AD molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.041 ounce, 1.15 grams

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.283	0.374	7.20	9.50	
B	0.189	0.208	4.80	5.30	ϕ
C	0.048	0.051	1.20	1.30	ϕ
D	1.000	-	25.40	-	

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	SB520	SB530	SB540	SB550	SB560	SB570	SB580	SB590	SB5B0	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	Volts	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	Volts	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	Volts	
Maximum average forward rectified current 0.375" (9.5mm) lead length (see Fig. 1)	$I_{(AV)}$	5.0									Amps	
Peak forward surge current, 10mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) at rated $T_L$	$I_{FSM}$	150.0									Amps	
Maximum instantaneous forward voltage at 5.0A (Note 1)	$V_F$	0.55			0.70 (Note 1)			0.85			Volts	
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1) $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	0.5 50.0			0.5 25.0						mA	
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	25.0 8.0										°C/W
Operating junction temperature range	$T_J$	-65 to +125				-65 to +150					°C	
Storage temperature range	$T_{STG}$	-65 to +150										°C

#### Notes:

(1) Pulse test: 300uS pulse width, 1% duty cycle

(2) Thermal resistance junction to lead vertical P.C.B. mounted, 0.500" (12.7mm) lead length with 2.5X2.5" (63.5X63.5mm)

# RATINGS AND CHARACTERISTIC CURVES

