



SB520 THRU SB5B0

MEDIUM CURRENT SCHOTTKY BARRIER RECTIFIER

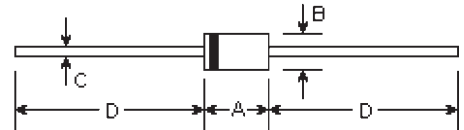
Reverse Voltage - 20 to 100 Volts

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			0.85			Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note 1) T _A =25°C T _A =100°C	I _R	0.5 50.0			0.5 25.0						mA
Typical thermal resistance (Note 2)	R _{θJA} R _{θJL}	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

