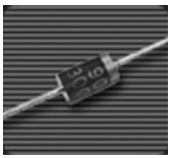
GOOD-ARK SEMICONDUCTOR

SB570 thru SB5B0

Schottky barrier Rectifier
Reverse Voltage 70-100V Forward Current 5.0A

Features

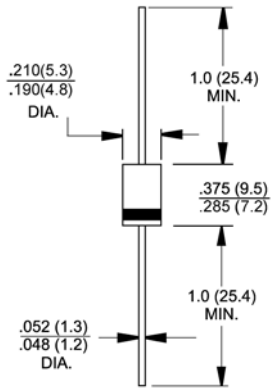
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Guardring for overvoltage protection



DO-201AD

Mechanical Data

- **Case:** JEDEC DO-201AD molded plastic body
- **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
  High temperature soldering guaranteed:
  250°C/10 seconds 0.375" (9.5mm) lead length,
  5lbs (2.3kg) tension
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.041 ounce, 1.15 grams



Dimensions in inches and (millimeters)

Absolute Maximum Ratings T_A=25°C unless otherwise noted)

Parameter	Symbol	SB570	SB580	SB590	SB5B0	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	70	80	90	100	Volts
Maximum RMS voltage	V_{RMS}	49	56	63	70	Volts
Maximum DC blocking voltage	V_{DC}	70	80	90	100	Volts
Maximum average forward rectified current .375"(9.5mm) lead lengths(See Fig.1)	$IF_{(AV)}$	5.0				Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rates load	I_{FSM}	150.0				Amps
Maximum instantaneous forward voltage at 5.0A DC	VF	0.79				Volts
Maximum DC reverse current at rated DC blocking voltage TA=25℃,TA=100℃	IR	0.5 50				mA
Typical thermal resistance	$R_{\theta ja}$ $R_{\theta jl}$	25 8				℃/W
Operating junction temperature range	T_j	-55 to +150				℃
storage temperature range	T_{STG}	-55 to +150				℃

Typical Electrical Characteristic Curves

(T_A = 25℃ unless otherwise noted)

FIG. 1- FORWARD CURRENT DERATING CURVE

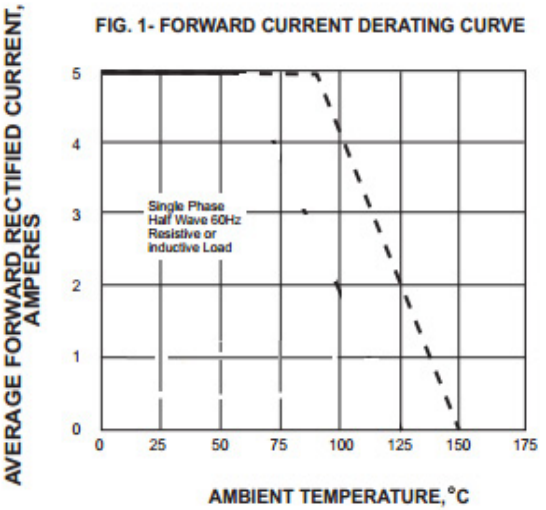


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

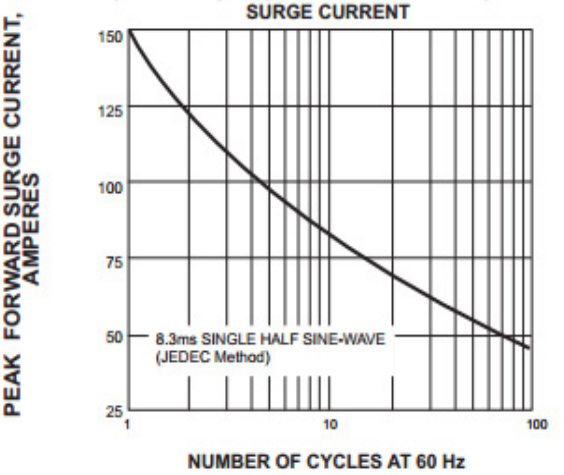


FIG. 3-TYPICAL TRANSIENT THERMAL IMPEDANCE