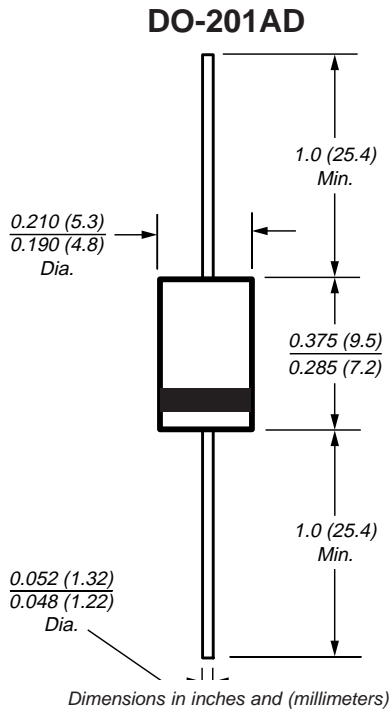


Schottky Barrier Rectifier

Reverse Voltage 20 to 60V

Forward Current 5A



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

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: 0.04 ounce, 1.12 grams

Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

Parameter	Symbol	SB520	SB530	SB540	SB550	SB560	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG.1)	I _{F(AV)}	5					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at rated T _L	I _{FSM}	200					A
Typical thermal resistance ⁽²⁾	R _{θJA} R _{θJL}	25 8					°C/W
Operating junction temperature range	T _J	-65 to +125			-65 to +150		°C
Storage temperature range	T _{STG}	-65 to +150					°C

Electrical Characteristics (TA = 25°C unless otherwise noted)

Parameter	Symbol	SB520	SB530	SB540	SB550	SB560	Unit
Max. instantaneous forward voltage at 5.0A (NOTE 1)	V _F	0.55			0.67		V
Maximum instantaneous reverse current at rated DC blocking voltage ⁽¹⁾	I _R	0.5					mA
		50			25		

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

(2) Thermal resistance junction to lead vertical P.C.B. mounted, 0.375" (9.5mm) lead length

Ratings and Characteristic Curves (T_A = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

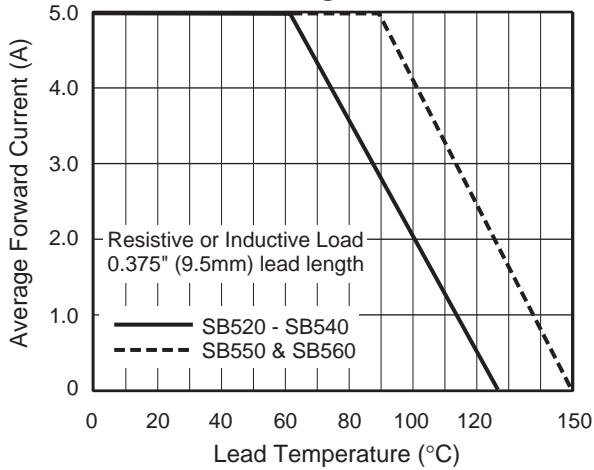


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

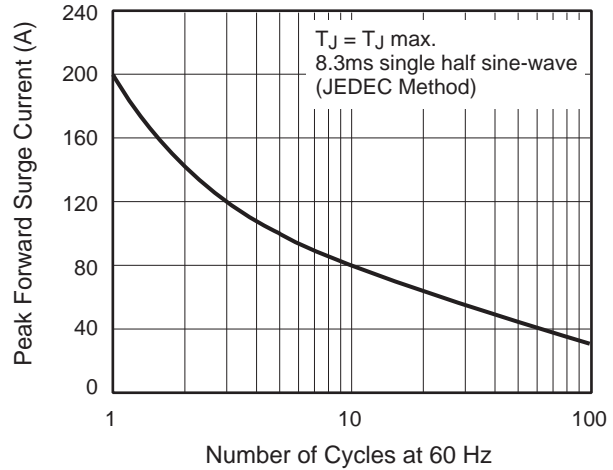


Fig. 3 - Typical Instantaneous Forward Characteristics

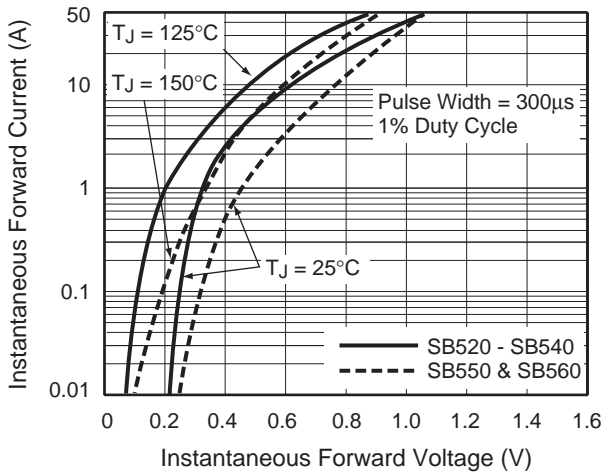


Fig. 4 - Typical Reverse Characteristics

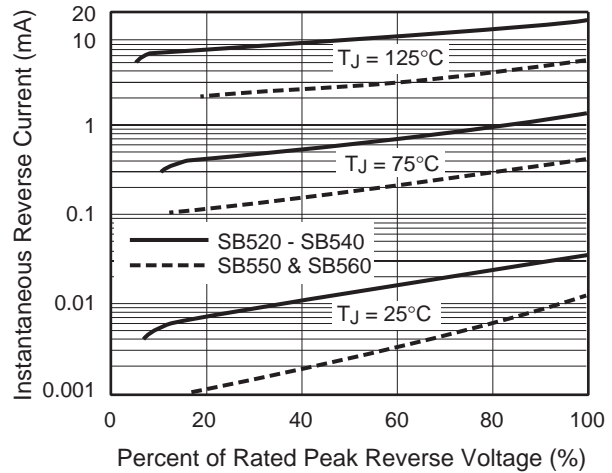


Fig. 5 - Typical Junction Capacitance

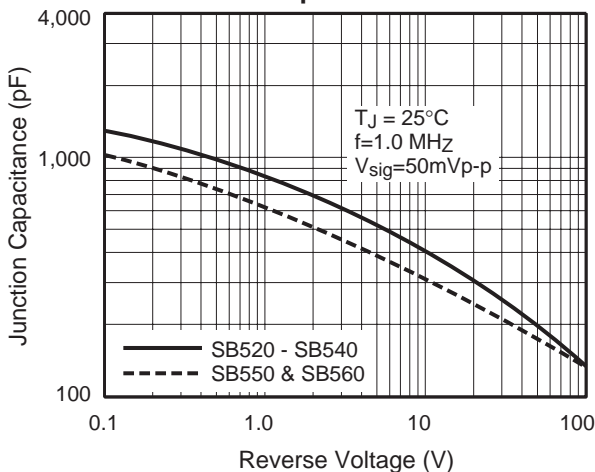


Fig. 6 - Typical Transient Thermal Impedance

