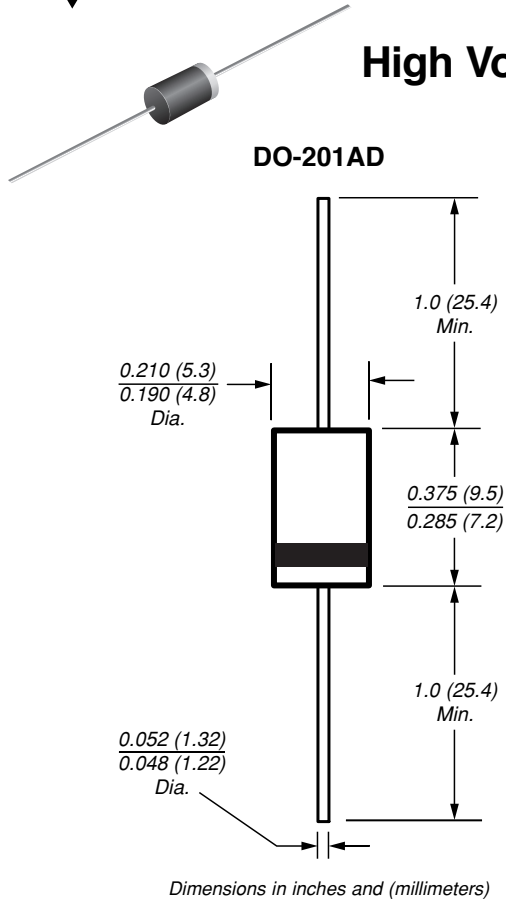


High Voltage Schottky Rectifier

Reverse Voltage 90 to 100V
Forward Current 5.0A



Dimensions in inches and (millimeters)

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 oz., 1.12 g

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

Parameter	Symbol	SB5H90	SB5H100	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	90	100	V
Working peak reverse voltage	V _{RWM}	90	100	V
Maximum DC blocking voltage	V _{DC}	90	100	V
Maximum average forward rectified current at T _C = 80°C	I _{F(AV)}	5.0		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	200		A
Peak repetitive reverse surge current at t _p = 2.0µs, 1KHz	I _{RRM}	1.0		A
Maximum thermal resistance ⁽²⁾	R _{θJA} R _{θJL}	25 8		°C/W
Storage temperature range	T _{STG}	-55 to +175		°C
Maximum operating junction temperature	T _J	175		°C

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

Maximum instantaneous forward voltage at: ⁽¹⁾	I _F = 5.0A, T _A = 25°C I _F = 5.0A, T _A = 125°C	V _F	0.80 0.70	V
Maximum DC reverse current at rated DC blocking voltage ⁽¹⁾	T _A = 25°C T _A = 125°C	I _R	200 10	µA mA

Notes: (1) Pulse test: 300µs pulse width, 1% duty cycle
 (2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

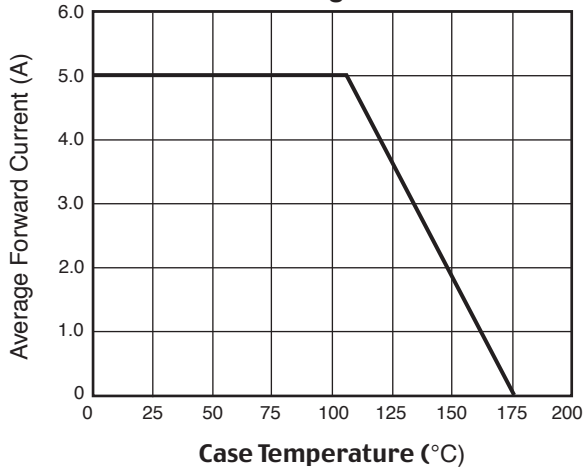


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

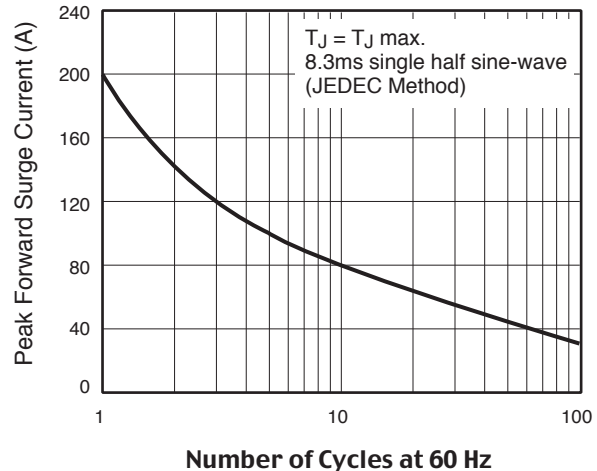


Fig. 3 – Typical Instantaneous Forward Characteristics

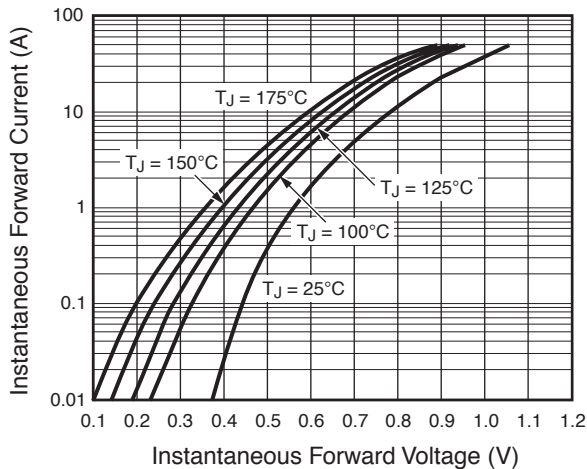


Fig. 4 – Typical Reverse Characteristics

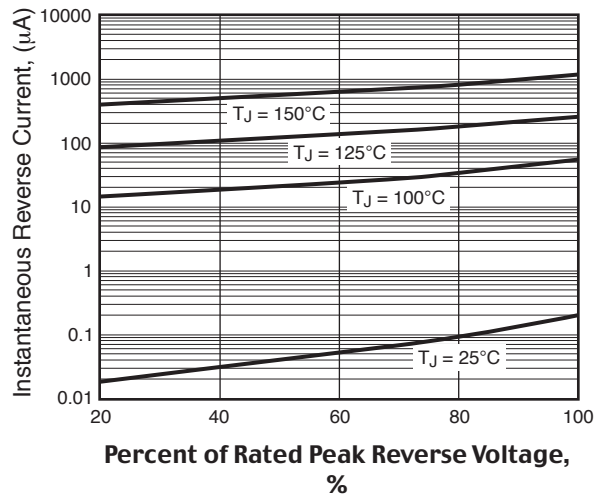


Fig. 5 - Typical Transient Thermal Impedance

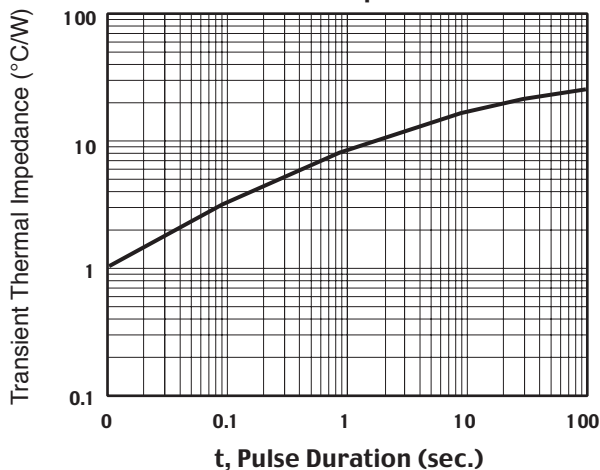


Fig. 6 – Typical Junction Capacitance

