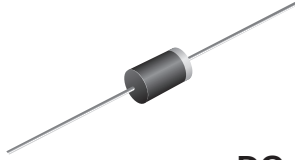


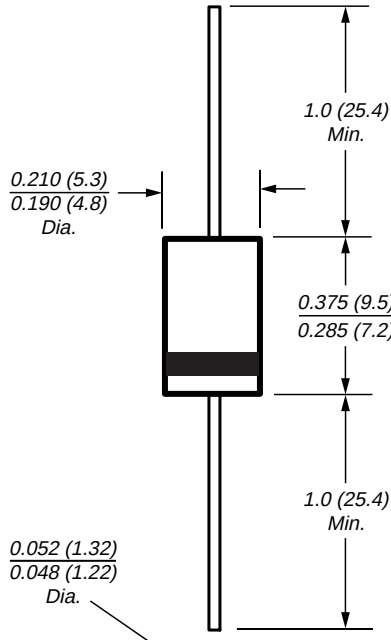
High Voltage Schottky Rectifier

Reverse Voltage 90 to 100V

Forward Current 3.0A



DO-201AD



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
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Mechanical Data

Case: JEDEC 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: 0.04 oz., 1.12g

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

Parameter	Symbol	SB3H90	SB3H100	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	90	100	V
Maximum working reverse voltage	V _{RWM}	90	90	V
Maximum DC blocking voltage	V _{DC}	90	100	V
Maximum average forward rectified current at T _L = 90°C	I _{F(AV)}	3.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100		A
Peak repetitive reverse surge current at t _p = 2.0μs, 1KHz	I _{RRM}	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/μs
Maximum thermal resistance ⁽²⁾	R _{θJA} R _{θJL}	30 10		°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 = 3.0A, T _J = 25°C I _F = 3.0A, T _J = 125°C	V _F	0.80 0.65	V
Maximum DC reverse current at rated DC blocking voltage	T _J = 25°C T _J = 125°C	I _R	20 4	μA mA

Notes:

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

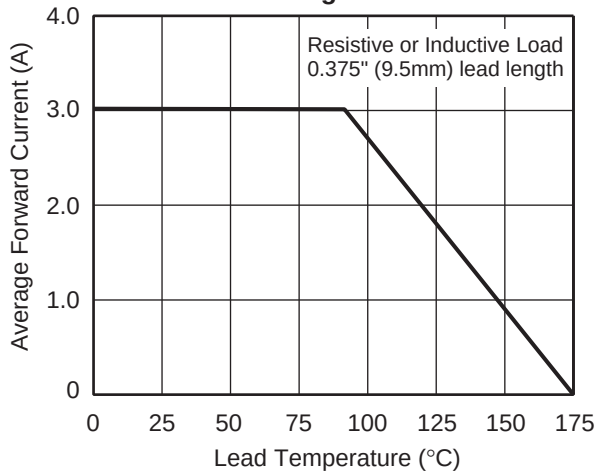
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

SB3H90 and SB3H100

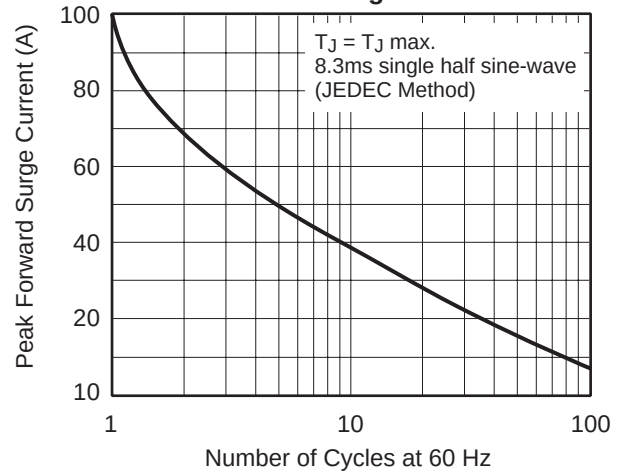
High Voltage Schottky Rectifier

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

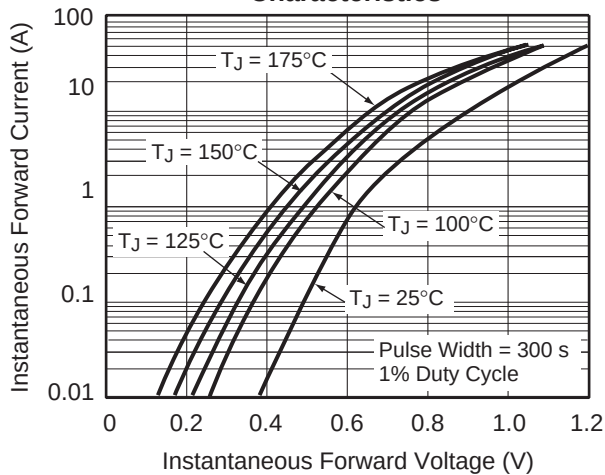
**Fig. 1 – Forward Current
Derating Curve**



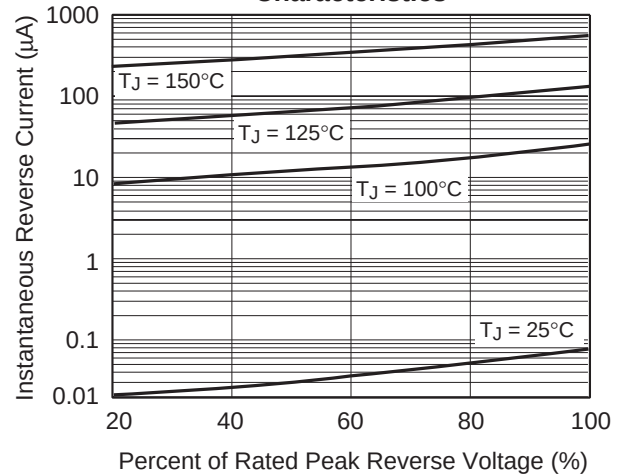
**Fig. 2 – Maximum Non-repetitive Peak
Forward Surge Current**



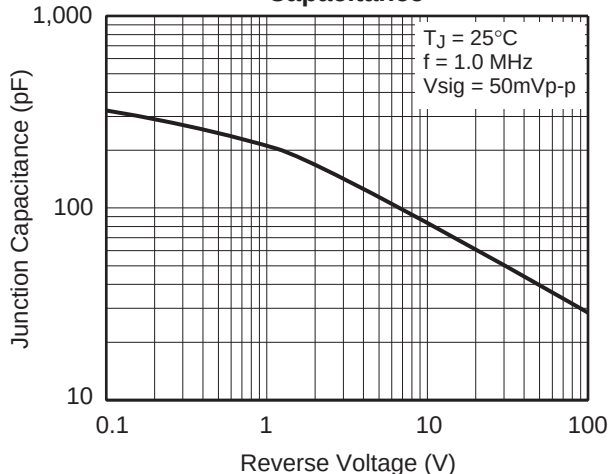
**Fig. 3 – Typical Instantaneous Forward
Characteristics**



**Fig. 4 – Typical Reverse
Characteristics**



**Fig. 5 – Typical Junction
Capacitance**



**Fig. 6 – Typical Transient
Thermal Impedance**

