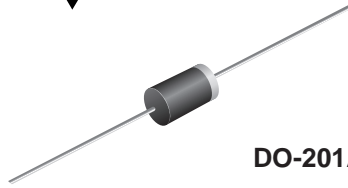
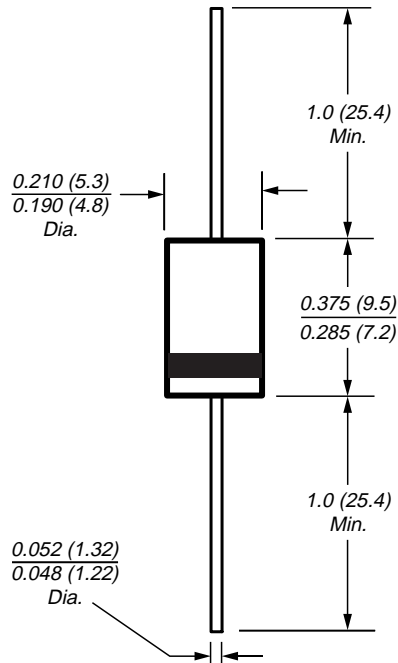


**High Voltage Schottky Rectifier****Reverse Voltage** 90 to 100V  
**Forward Current** 5.0A**DO-201AD****Features**

- 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 2026High 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** ( $T_A = 25^\circ\text{C}$  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 $T_C = 80^\circ\text{C}$	$I_{F(AV)}$	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 $t_p = 2.0\mu\text{s}$ , 1KHz	$I_{RRM}$	1.0		A
Maximum thermal resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JL}$	25 8		$^\circ\text{C/W}$
Storage temperature range	$T_{STG}$	-55 to +150		$^\circ\text{C}$
Maximum operating junction temperature	$T_J$	175		$^\circ\text{C}$

**Electrical Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted)

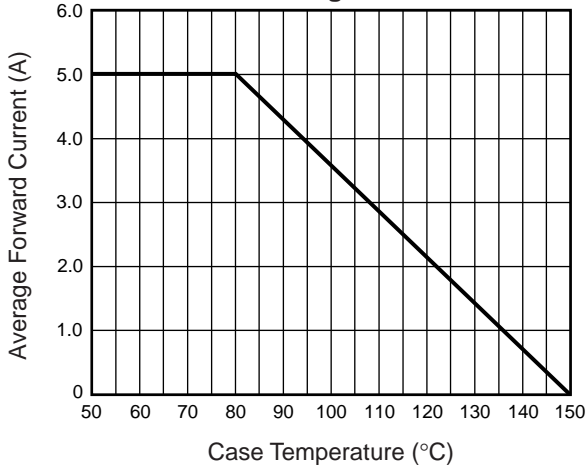
Maximum instantaneous forward voltage at: <sup>(1)</sup>	$I_F = 5.0\text{A}$ , $T_A = 25^\circ\text{C}$ $I_F = 5.0\text{A}$ , $T_A = 125^\circ\text{C}$	$V_F$	0.80 0.70	V
Maximum DC reverse current at rated DC blocking voltage <sup>(1)</sup>	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	$I_R$	200 10	$\mu\text{A}$ mA

**Notes:** (1) Pulse test: 300 $\mu\text{s}$  pulse width, 1% duty cycle

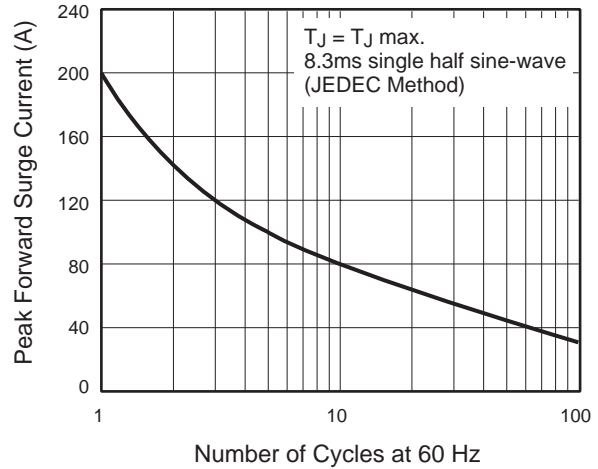
(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

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

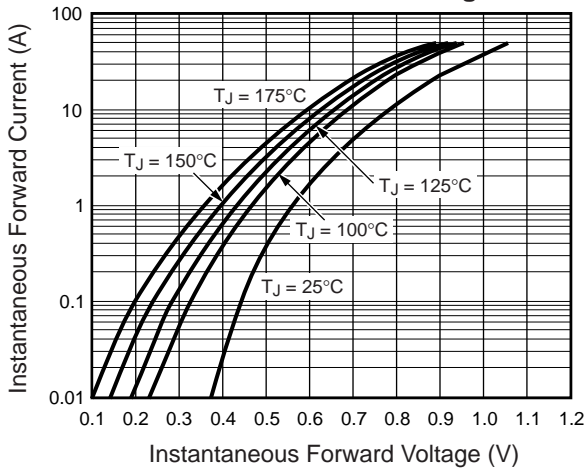
**Fig. 1 – Forward Current Derating Curve**



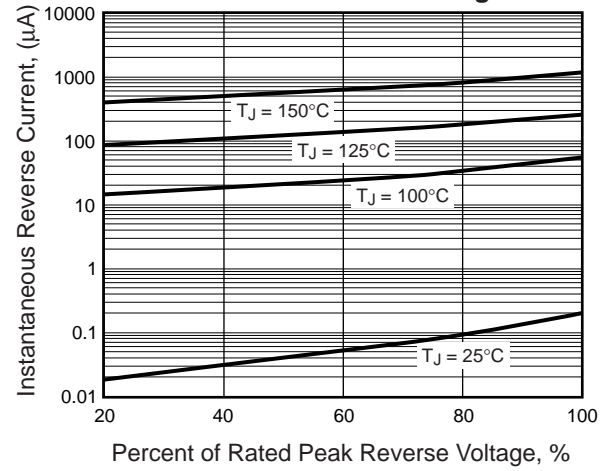
**Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current**



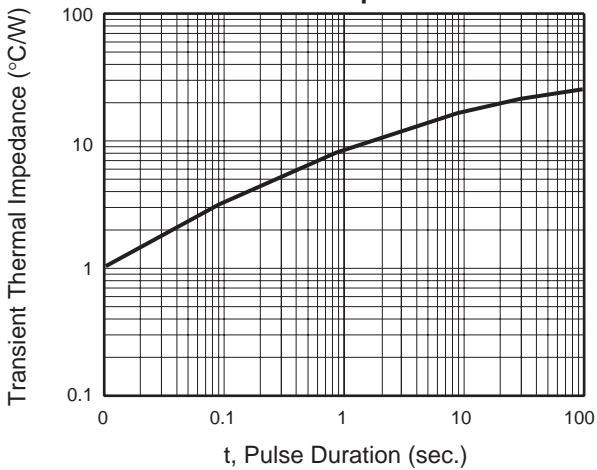
**Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg**



**Fig. 4 – Typical Reverse Characteristics Per Leg**



**Fig. 5 - Typical Transient Thermal Impedance**



**Fig. 6 – Typical Junction Capacitance**

