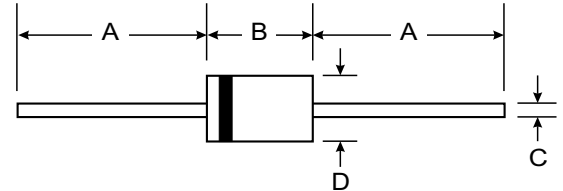
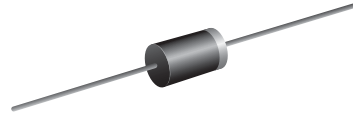


VOLTAGE RANGE: 90 - 100V
CURRENT: 3.0 A

Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications



DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
All Dimensions in mm		

Mechanical Data

- Case: DO-201AD, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 1.2 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

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 $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	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 $t_p = 2.0\mu\text{s}$, 1KHz	I_{RRM}	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/ μs
Maximum thermal resistance ⁽²⁾	$R_{\theta JA}$ $R_{\theta JL}$	30 10		$^\circ\text{C/W}$
Storage temperature range	T_{STG}	-55 to +175		$^\circ\text{C}$
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: ⁽¹⁾	$I_F = 3.0\text{A}$, $T_J = 25^\circ\text{C}$ $I_F = 3.0\text{A}$, $T_J = 125^\circ\text{C}$	V_F	0.80 0.65	V
Maximum DC reverse current at rated DC blocking voltage	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$	I_R	20 4	μA mA

Notes:

(1) Pulse test: 300 μs 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

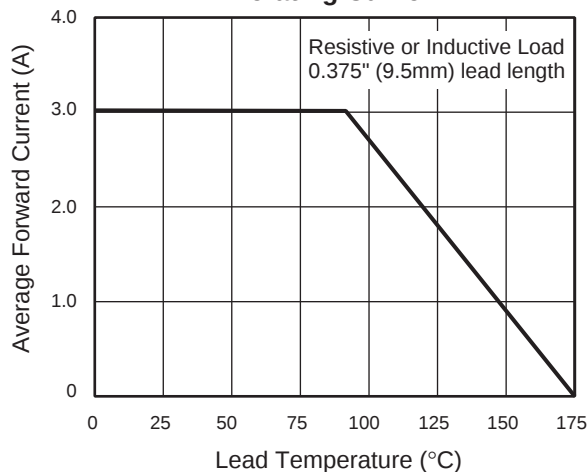


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

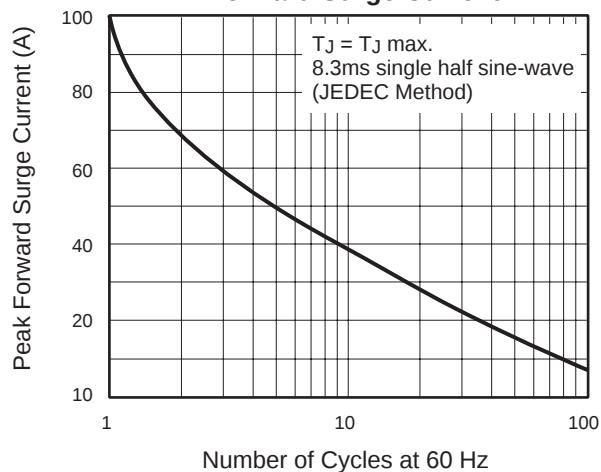


Fig. 3 – Typical Instantaneous Forward Characteristics

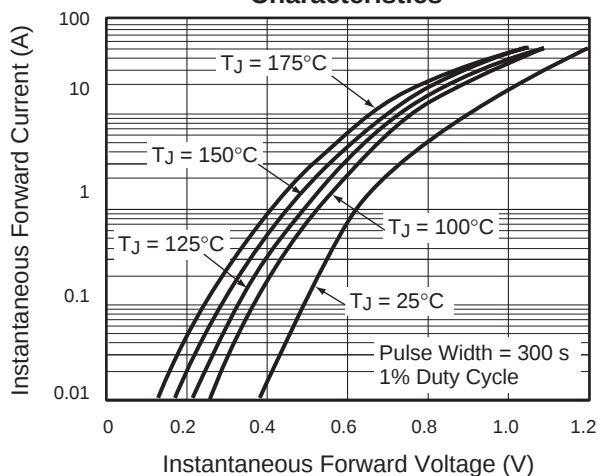


Fig. 4 – Typical Reverse Characteristics

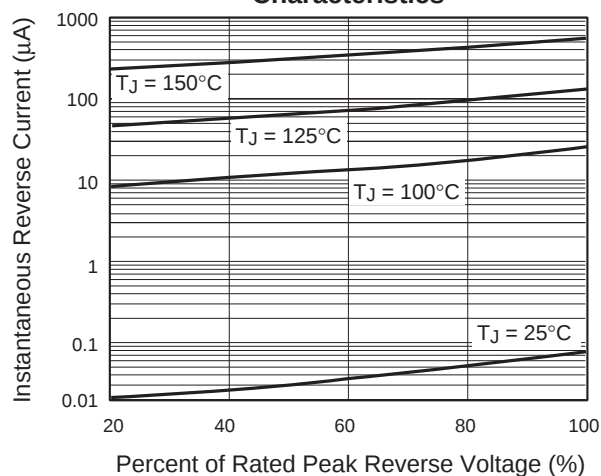


Fig. 5 – Typical Junction Capacitance

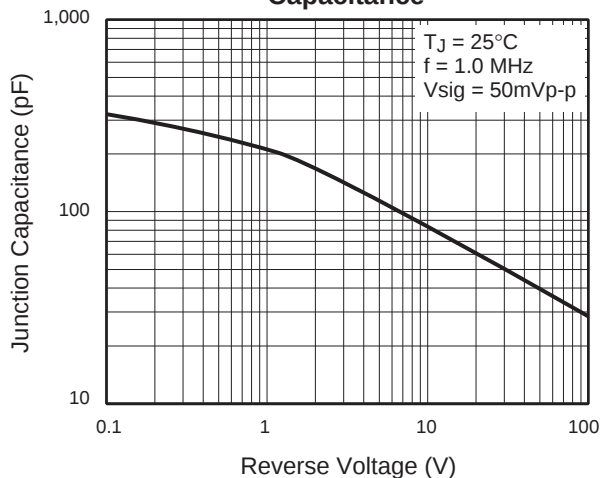


Fig. 6 - Typical Transient Thermal Impedance

