



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

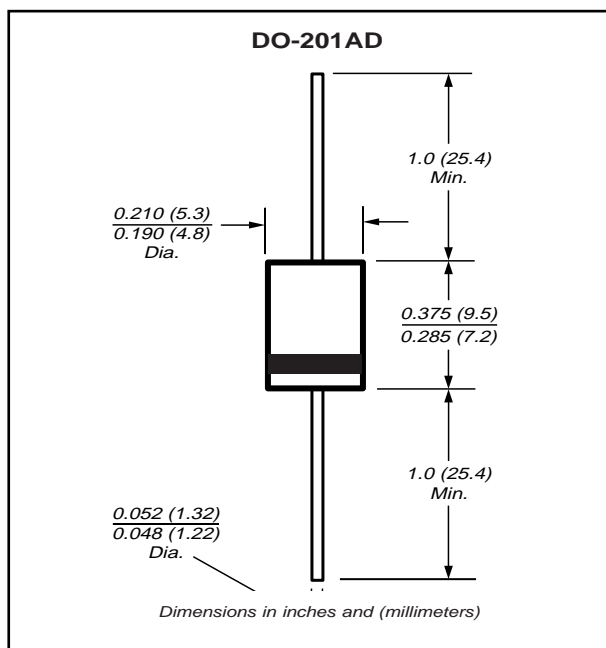
Case: JEDEC DO-201AD molded plastic body

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 ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	SB3H90	SB3H100	Unit
Maximum repetitive peak reverse voltage	VRRM	90	100	V
Maximum working reverse voltage	VRWM	90	90	V
Maximum DC blocking voltage	VDC	90	100	V
Maximum average forward rectified current at TL = 90°C	IF(AV)	3.0		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	100		A
Peak repetitive reverse surge current at tp = 2.0µs, 1KHz	IRRM	1.0		A
Critical rate of rise of reverse voltage	dv/dt	10,000		V/µs
Maximum thermal resistance ⁽²⁾	RθJA RθJL	30 10		°C/W
Storage temperature range	TSTG	-55 to +175		°C
Maximum operating junction temperature	TJ	+175		°C

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

Maximum instantaneous forward voltage at: ⁽¹⁾	IF = 3.0A, TJ = 25°C IF = 3.0A, TJ = 125°C	VF	0.80 0.65	V
Maximum DC reverse current at rated DC blocking voltage	TJ = 25°C TJ = 125°C	IR	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



Fig. 1 – Forward Current Derating Curve

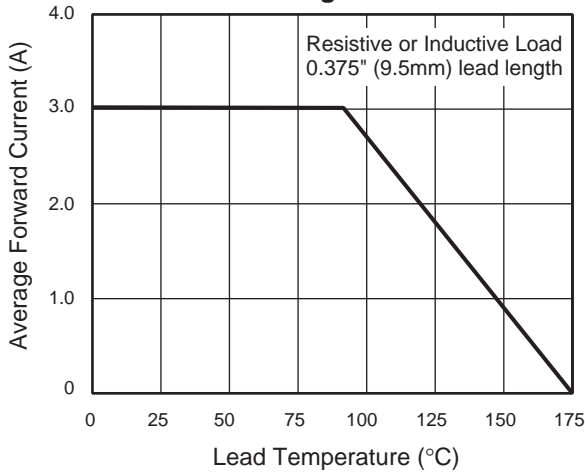


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

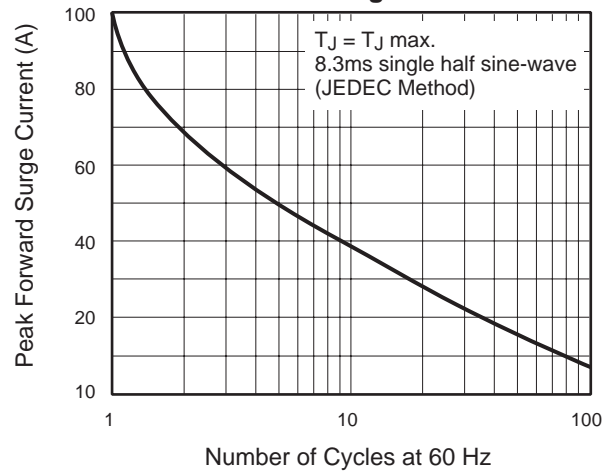


Fig. 3 – Typical Instantaneous Forward Characteristics

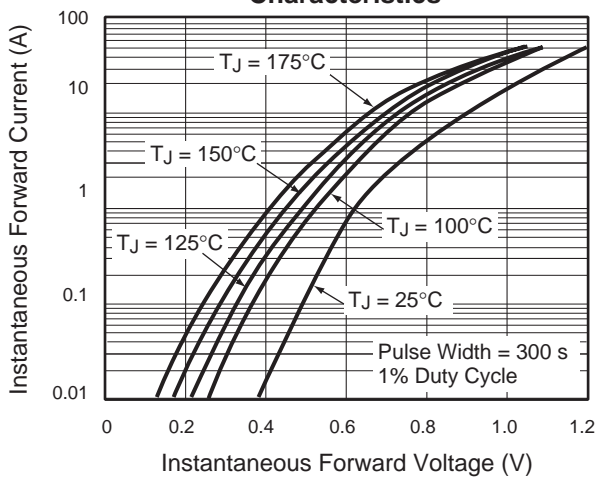


Fig. 4 – Typical Reverse Characteristics

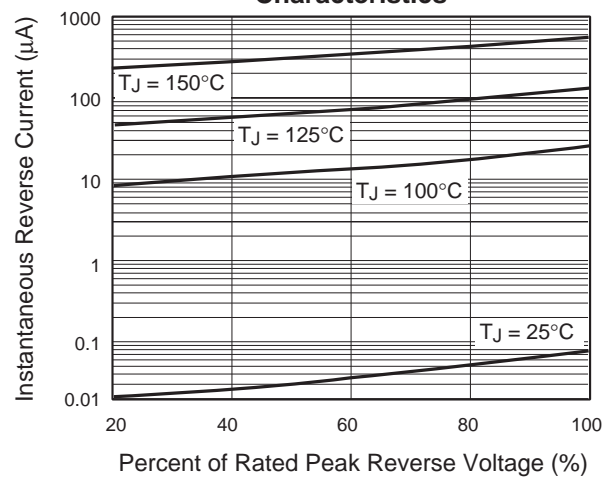


Fig. 5 – Typical Junction Capacitance

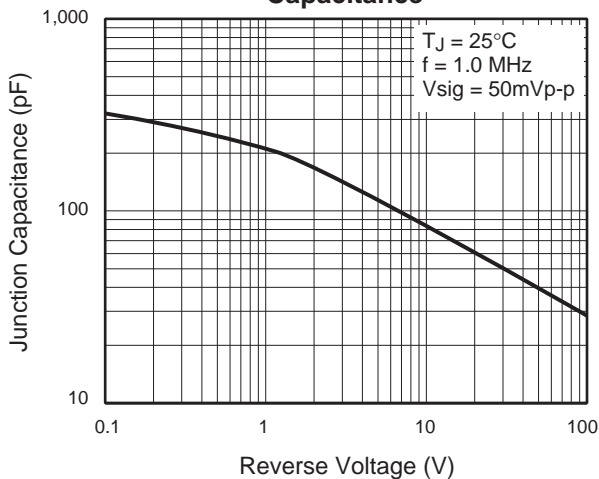


Fig. 6 - Typical Transient Thermal Impedance

