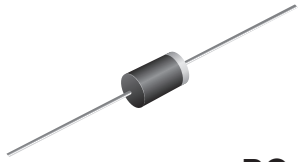


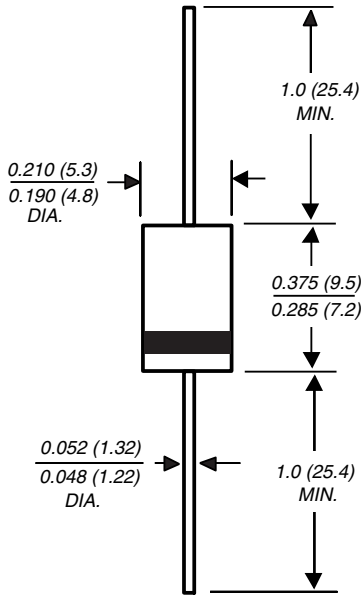
Ultrafast Plastic Rectifier

Reverse Voltage 600V
Forward Current 3.0A



New Product

DO-201AD



Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Glass passivated chip junction
- Low cost
- Ultrafast recovery time for high efficiency
- Low forward voltage, high current capability
- Low leakage
- High surge capability
- High temperature soldering guaranteed: 250°C, 0.375" (9.5mm) lead length for 10 seconds, 5 lbs. (2.3kg) tension

Mechanical Data

Case: JEDEC DO-201AD molded plastic body over passivated chip

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04oz., 1.1g

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	600	V
Maximum RMS voltage	V _{RMS}	420	V
Maximum DC blocking voltage	V _{DC}	600	V
Maximum average forward rectified current, 0.375" (9.5mm) lead length at T _L = 110°C	I _{F(AV)}	3.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at T _A = 55°C	I _{FSM}	90	A
Typical thermal resistance ⁽¹⁾ Junction-to-ambient Junction-to-lead	R _{θJA} R _{θJL}	30 8	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-40 to +150	°C
Reverse Avalanche Energy (8/20μs surge)	E _{AR}	10	mJ

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Minimum reverse breakdown voltage at 10μA	V _(BR)	600	V
Maximum instantaneous forward voltage at 3.0A ⁽¹⁾	V _F	1.6	V
Maximum DC reverse current at rated DC blocking voltage	I _R	20	μA
Maximum reverse recovery time at I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A	t _{rr}	30	ns

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

Ultrafast Plastic Rectifier

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

Fig. 1 – Maximum Forward Current Derating Curve

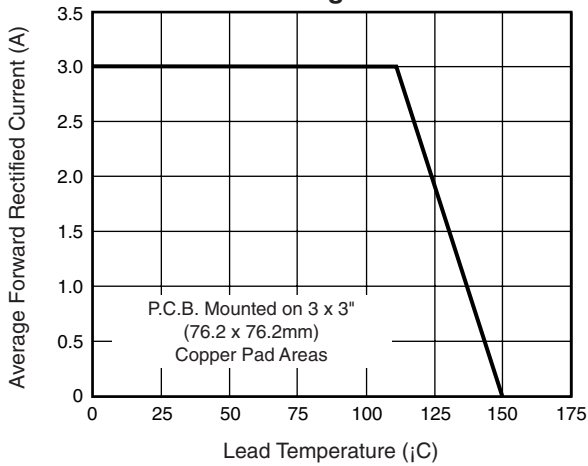


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

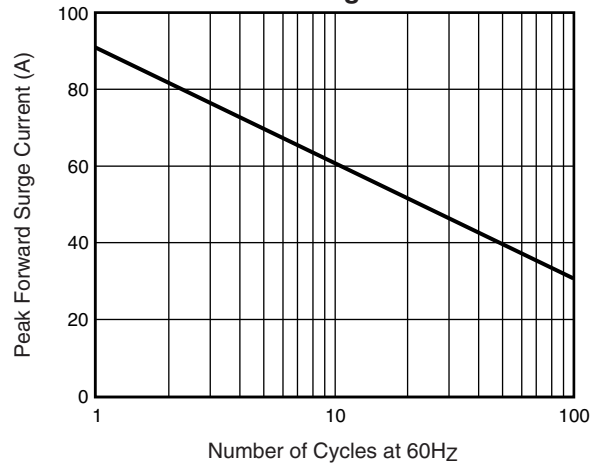


Fig. 3 – Typical Reverse Current

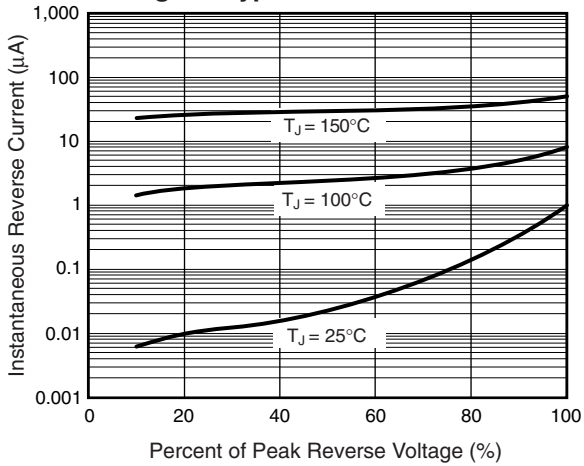


Fig. 4 – Typical Forward Voltyage

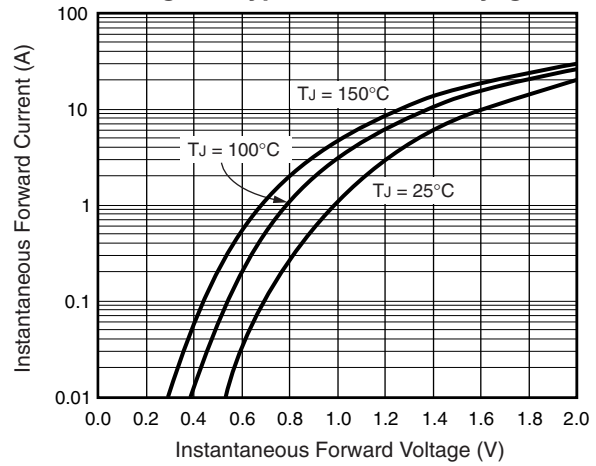


Fig. 5 – Typical Junction Capacitance

