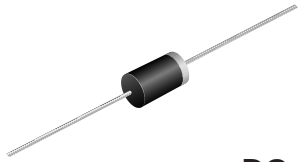


## Ultrafast Plastic Rectifier

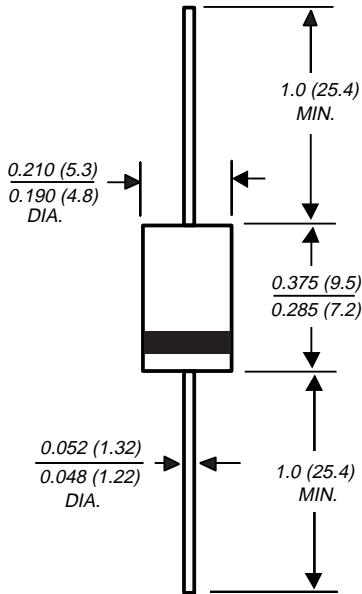
Reverse Voltage 400V

Forward Current 3.0A



New Product

### DO-201AD



### 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	$V_{RRM}$	400	V
Maximum RMS voltage	$V_{RMS}$	280	V
Maximum DC blocking voltage	$V_{DC}$	400	V
Maximum average forward rectified current, 0.375" (9.5mm) lead length	$I_{F(AV)}$	3.0 1.5	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_A = 55^\circ\text{C}$	$I_{FSM}$	60	A
Typical thermal resistance <sup>(1)</sup> Junction-to-ambient	$R_{\theta JA}$	80	°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.

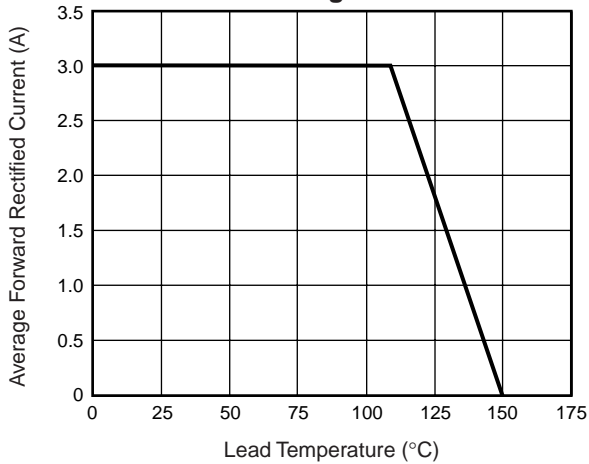
Parameter	Symbol	Value	Unit
Minimum reverse breakdown voltage at 10µA	$V_{(BR)}$	400	V
Maximum instantaneous forward voltage at 3.0A <sup>(1)</sup>	$V_F$	1.25	V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	20	µA
Maximum reverse recovery time at $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	$t_{rr}$	30	ns

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

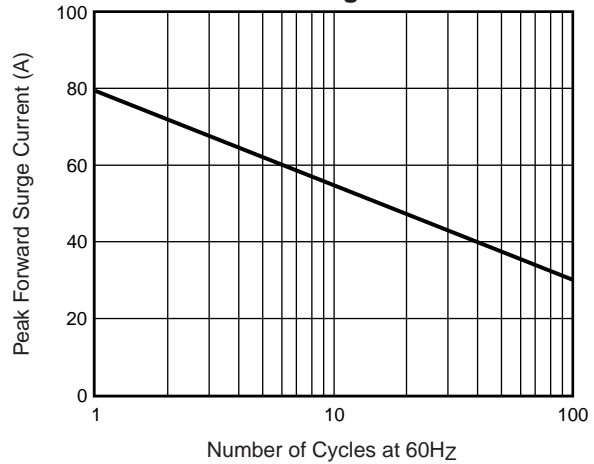
**Ultrafast Plastic Rectifier**

**Ratings and Characteristic Curves**

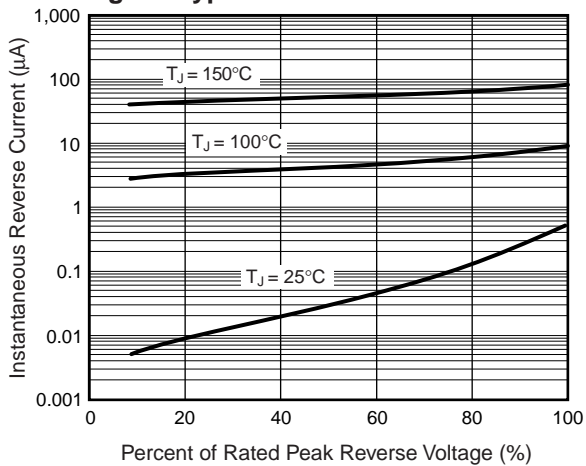
**Fig. 1 – Maximum Forward Current Derating Curve**



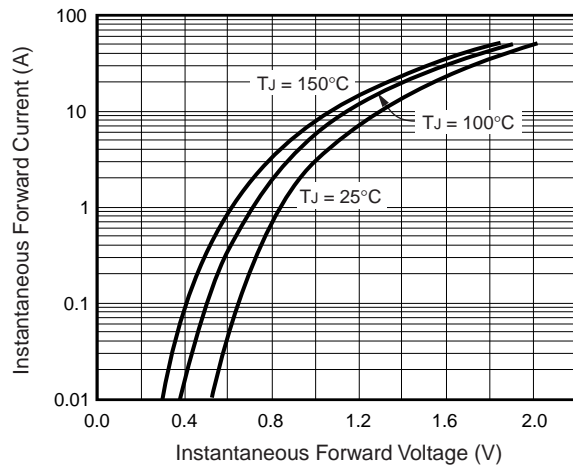
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Instantaneous Forward Characteristics**



**Fig. 5 – Typical Junction Capacitance**

