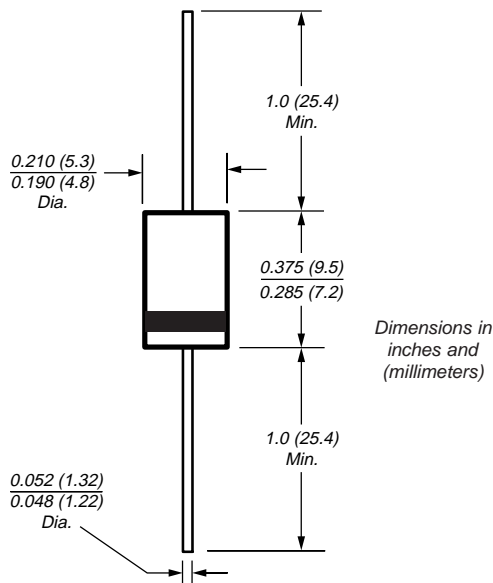


## Ultrafast Plastic Rectifier

**Reverse Voltage** 200V  
**Forward Current** 4.0A

**DO-201AD**


### Features

- Plastic package has Underwriters Laboratories Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Ultrafast recovery time for high efficiency
- Glass passivated junction
- High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 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:** 0.045 oz., 1.2 g

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	200	V
Working peak reverse voltage	V <sub>RWM</sub>	200	V
Maximum DC blocking voltage	V <sub>DC</sub>	200	V
Maximum average forward rectified current at T <sub>A</sub> = 80°C (See figure 1)	I <sub>F(AV)</sub>	4.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150	A
Typical thermal resistance junction to ambient <sup>(1)</sup>	R <sub>θJA</sub>	28	°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175°C	°C

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

Parameter	Symbol	Value	Unit
Maximum instantaneous forward voltage <sup>(2)</sup>	V <sub>F</sub>	0.710 0.875 0.890	V
Maximum instantaneous reverse current at rated DC blocking voltage <sup>(2)</sup>	I <sub>R</sub>	5.0 150	μA
Maximum reverse recovery time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	25	ns
Maximum reverse recovery time at, I <sub>F</sub> =1.0A, di/dt=50A/μs, V <sub>R</sub> =30V, I <sub>rr</sub> =10% I <sub>RM</sub>	t <sub>rr</sub>	35	ns
Maximum forward recovery time I <sub>F</sub> =1.0A, di/dt=100A/μs, Rec. to 1.0V	t <sub>fr</sub>	25	ns

**Notes:** (1) Lead length = 1/2" on P.C. board with 1/2" x 1/2" copper surface  
 (2) Pulse test: t<sub>p</sub>=300μs, duty cycle ≤ 2%

Ratings and  
Characteristic Curves

Fig. 1 – Forward Current Derating Curve

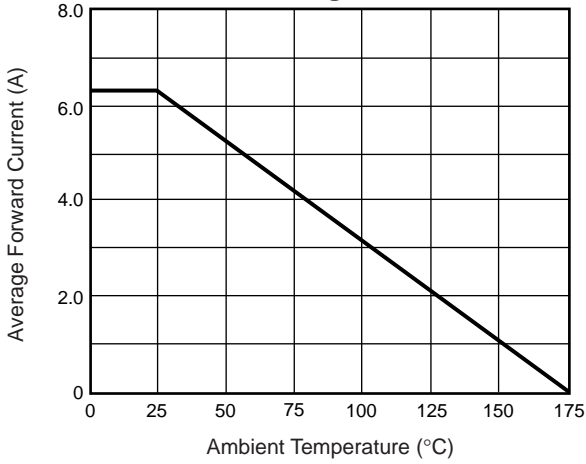


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

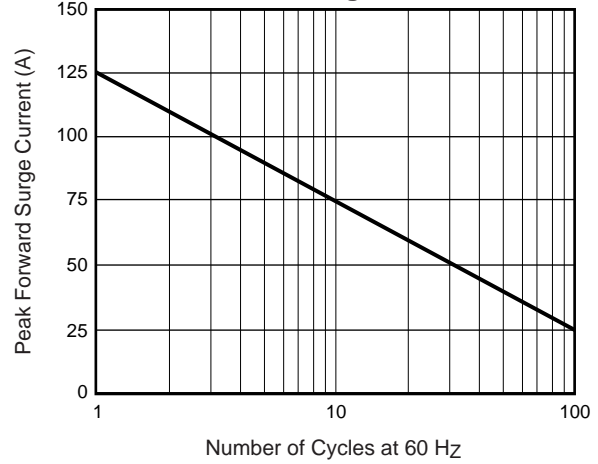


Fig. 3 – Typical Instantaneous Forward Characteristics

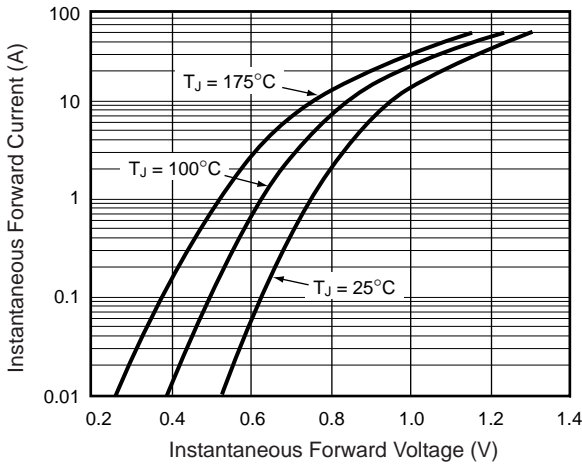


Fig. 4 – Typical Reverse Leakage Characteristics

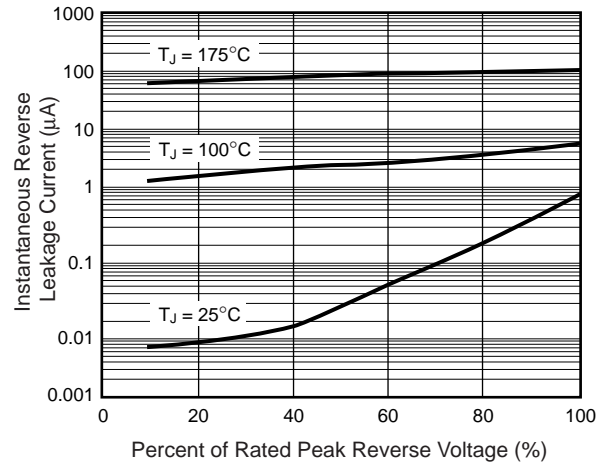


Fig. 5 – Typical Junction Capacitance

