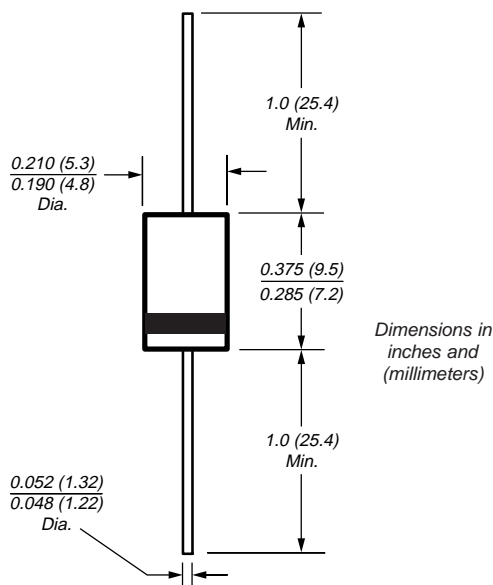


Ultrafast Plastic Rectifier

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

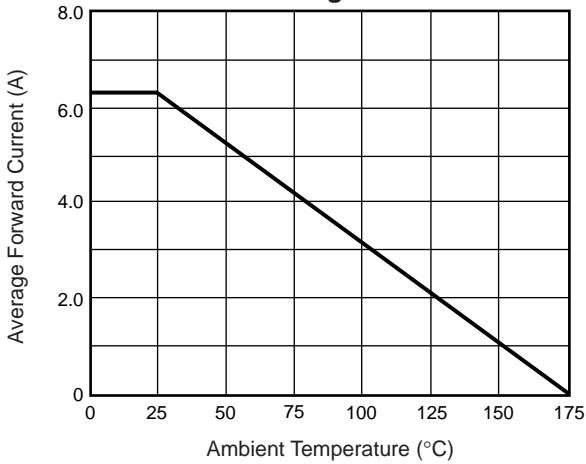
Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

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

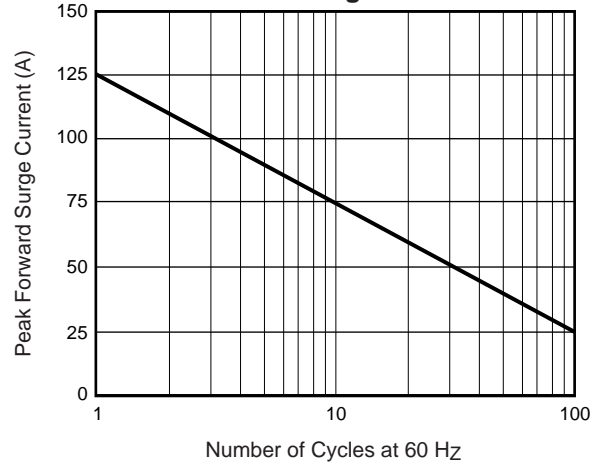
Notes: (1) Lead length = 1/2" on P.C. board with 1/2" x 1/2" copper surface
 (2) Pulse test: t_p=300μs, duty cycle ≤ 2%

**Ratings and
Characteristic Curves**

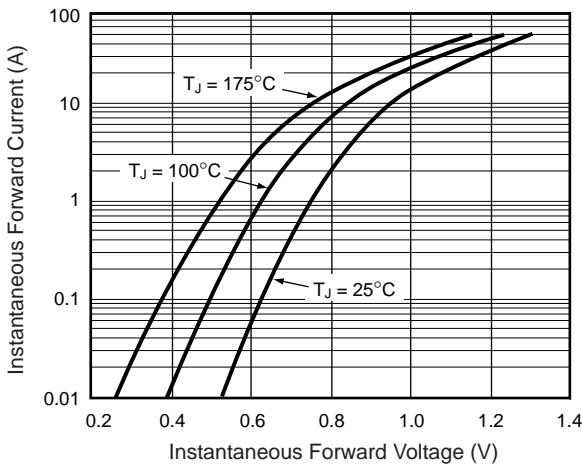
**Fig. 1 – Forward Current
Derating Curve**



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



**Fig. 3 – Typical Instantaneous
Forward Characteristics**



**Fig. 4 – Typical Reverse Leakage
Characteristics**

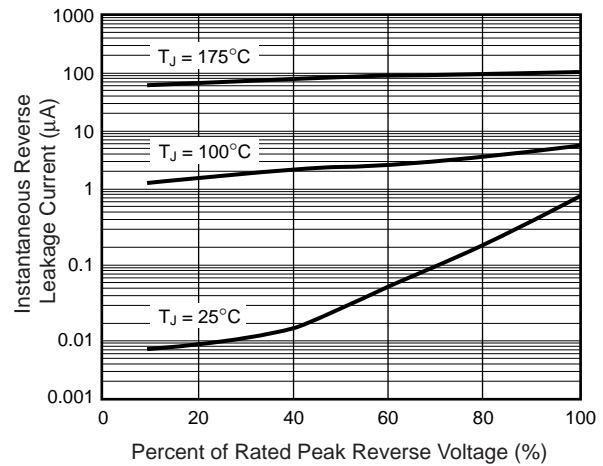


Fig. 5 – Typical Junction Capacitance

