

Ultra Fast Recovery Rectifier



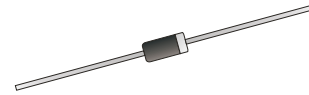
SMD Diodes Specialist

MUR440-G Thru. MUR460-G

Voltage: 400 to 600 V

Current: 4.0 A

RoHS Device

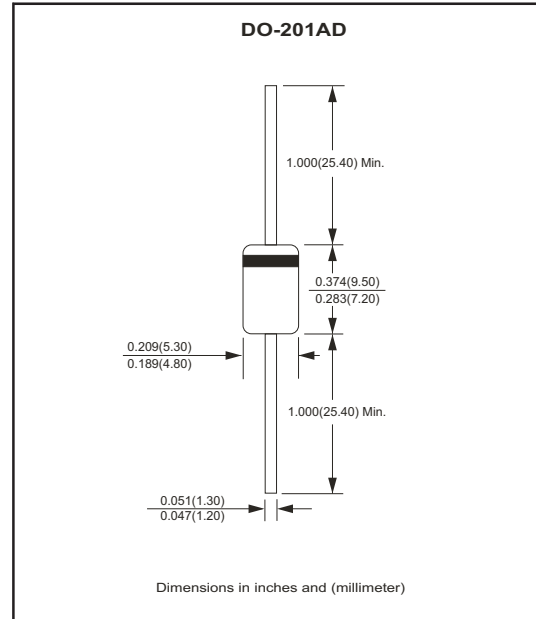


Features

- Fast switching for high efficiency.
- Low forward voltage drop.
- High current capability.
- Low reverse leakage current.
- High surge current capability.

Mechanical data

- Case: Molded plastic, DO-201AD
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-202, method 208
- Polarity: Color band denotes cathode
- Mounting position: Any
- Weight: 1.1 grams



Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

Parameter	Symbol	MUR440-G	MUR460-G	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	400	600	V
Maximum peak reverse voltage	V_{RWM}	280	420	V
Maximum DC blocking voltage	V_{DC}	400	600	V
Maximum average forward rectified current $T_A=75^\circ\text{C}$	$I_{(AV)}$	4.0		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150		A
Maximum instantaneous Forward voltage @ 4.0A @ 3.0A	V_F	1.28 1.25		V
Maximum DC reverse current At rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=150^\circ\text{C}$	I_R	5.0 250		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}	50		nS
Operating junction and Storage temperature range	T_J, T_{STG}	-55 to +175		$^\circ\text{C}$

NOTES:

1. Pulse test : $t_p=300\mu\text{s}$, duty cycle<2%.
2. Lead length=1/2" on P.C. board with 1.5" x 1.5" copper surface.

RATING AND CHARACTERISTIC CURVES (MUR440-G Thru. MUR460-G)

Fig.1 Forward Current Derating Curve

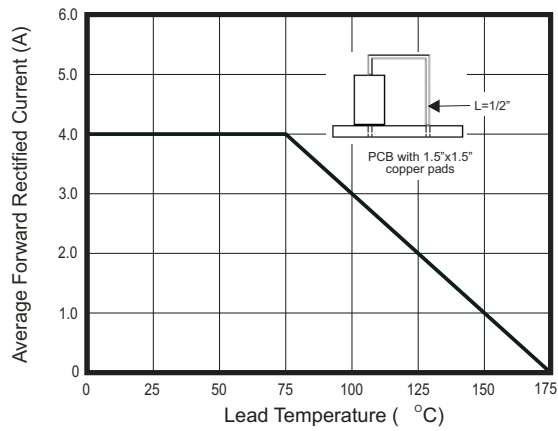


Fig.2 Maximum Non-repetitive Peak Forward Surge Current

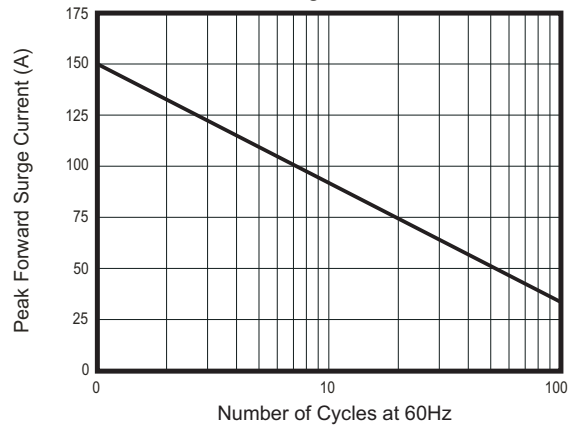


Fig.3 Typical Instantaneous Forward Characteristics

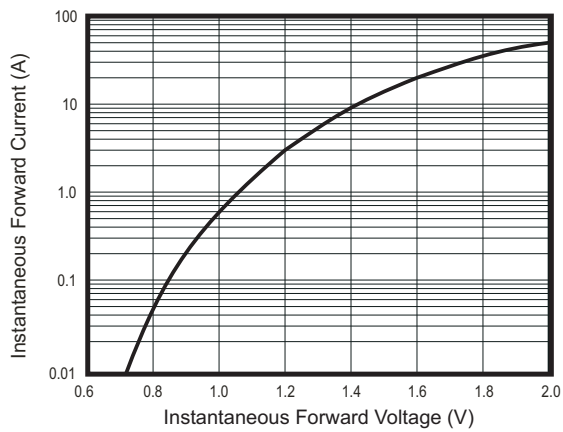


Fig.4 Typical Reverse Characteristics

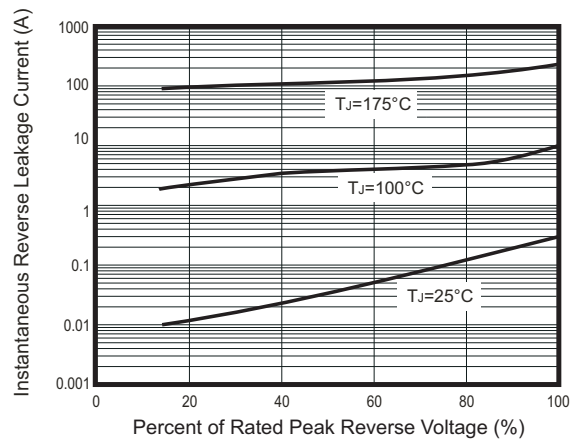


Fig.5 Typical Junction Capacitance per leg

