



MUR420 THRU MUR460

4.0 AMPS. Ultrafast Glass Passivated Rectifiers



Voltage Range
200 to 600 Volts
Current
4.0 Amperes

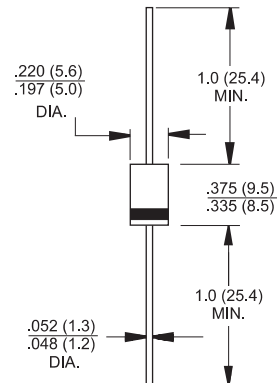
Features

- ✧ Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- ✧ Ultrafast recovery time for high efficiency
- ✧ Excellent high temperature switching
- ✧ Glass passivated junction

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Epoxy: UL 94V-0 rate flame retardant
- ✧ Lead: Axial leads, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: Color band denotes cathode end
- ✧ High temperature soldering guaranteed: 260°C/10 seconds/.375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Mounting position: Any
- ✧ Weight: 1.2 grams, 0.045oz.

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

Type Number	Symbol	MUR420	MUR440	MUR460	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length (See Fig. 1)	$I_{(AV)}$	4.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125	70		A
Maximum Instantaneous Forward Voltage @ 4.0A	V_F	0.89	1.28		V
Maximum DC Reverse Current @ $T_C=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_C=150^\circ\text{C}$ (Note 4)	I_R	5.0 150	10 250		uA uA
Maximum Reverse Recovery Time (Note 2)	T_{rr}	25	50		nS
Typical Junction Capacitance (Note 1) $T_J = 25^\circ\text{C}$ (Fig. 5)	C_j	65			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	28			$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-65 to +175			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to +175			$^\circ\text{C}$

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

2. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

3. Thermal Resistance from Junction to Ambient, Lead Length = 1/2" on P.C. Board with 0.2" x 0.2" Copper Surface.

4. Pulse test: $t_p = 300 \mu\text{s}$, Duty Cycle < 2%.

RATINGS AND CHARACTERISTIC CURVES (MUR420 THRU MUR460)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

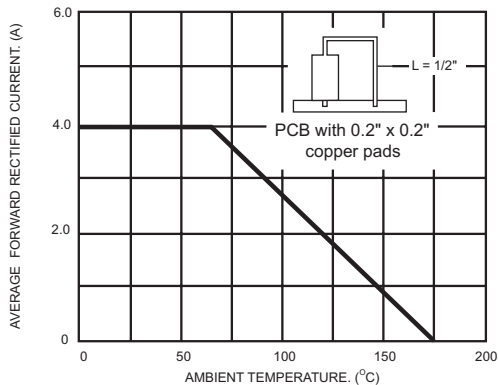


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

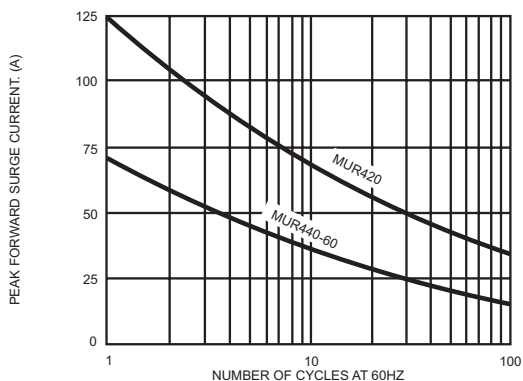


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

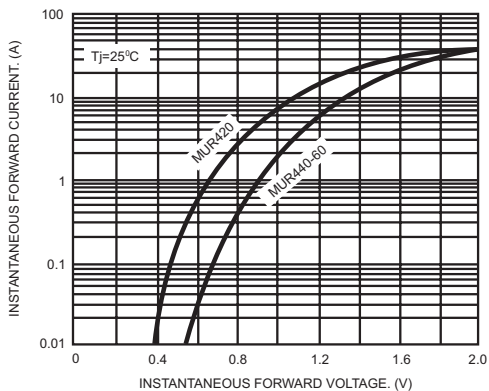


FIG.4- TYPICAL REVERSE CHARACTERISTICS

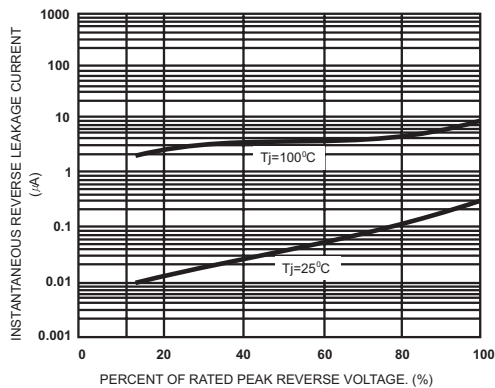


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

