

MUR1060/MUR1060F

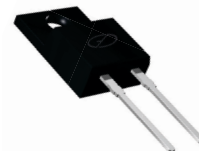
Ultrafast Recovery Rectifiers
Reverse Voltage 600V Forward Current 10 A

Features

- FRED (Planar) wafer construction
- Ultrafast recovery time
- Low forward voltage drop, low power loss
- High efficiency
- Plastic package has underwriters Laboratory
Flammability Classification 94V-0



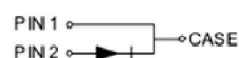
MUR1060
Package: TO-220-AC



MUR1060F
Package: ITO-220-AC

Mechanical Data

- Case: Epoxy, molded
- Weight: 1.9grams (approximately)
- Finish: all external surfaces corrosion resistant and terminal leads readily solderable
- Lead yemperature for soldering purposes: 260°C Max. for 10 sec
- 50 units per plastic tube



Schematic Diagram

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Test Conditions		Symbol	Value	Unit	
Maximum Repetitive Peak Reverse Voltage			V _{RRM}	600	V	
Working Peak Reverse Voltage			V _{RWM}	600	V	
Maximum DC Blocking Voltage			V _{DC}	600	V	
Maximum Average Forward Rectified Current @ T _c =105°C Total Device per Diode			I _{F(AV)}	10	A	
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I _{FSM}	125	A	
Isolation Voltage from Terminal to Heatsink t=1 min	ITO-220-AC		V _{AC}	1500	V	
Operating Junction Temperature Range			T _J	- 55 to+150	°C	
Storage Temperature Range			T _{STG}	- 55 to+150	°C	
Maximum Reverse Recover Time (I _F =0.5A, I _R =1.0A,I _{rec} =0.25A)			T _{rr}	50	ns	
Maximum Instantaneous Forward Voltage per Leg	I _F =10A	T _C =25°C	V _F	1.60	V	
	I _F =10A	T _C =125°C		1.50		
Maximum Reverse Current per Leg at Working Peak Reverse Voltage			I _R	10	μA	
				500	μA	
Thermal Characteristics T _A =25°C unless otherwise noted						
Symbol	Parameter		Typ.(MUR1060)		Typ.(MUR1060F)	Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg		2.0		4.0	°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient per Leg		62.5		62.5	°C/W

Note: Pulse test:300us pulse width, duty cycle=2%

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

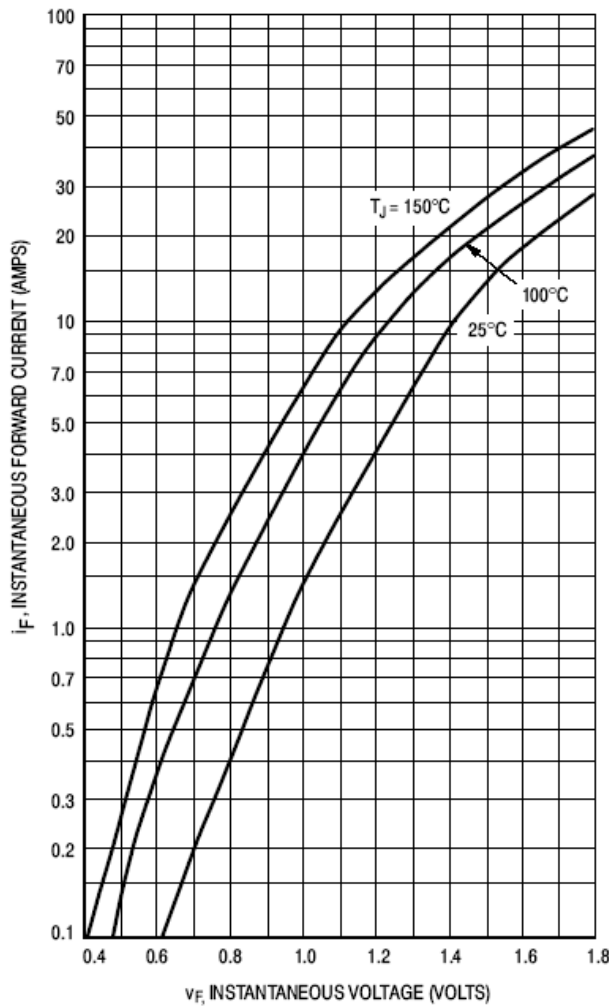


Figure 1. Typical Forward Voltage Per Leg

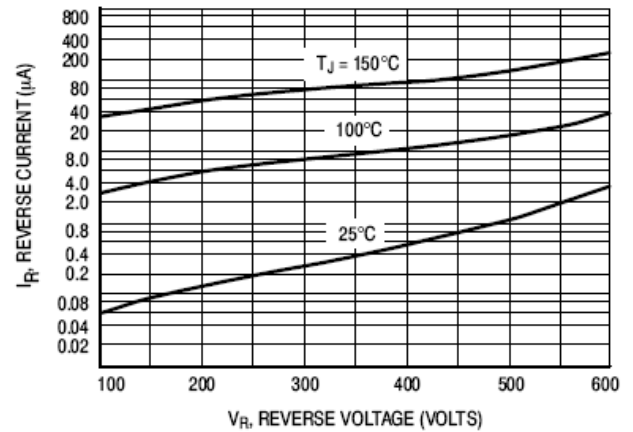


Figure 2. Typical Reverse Current Per Leg

* The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R .

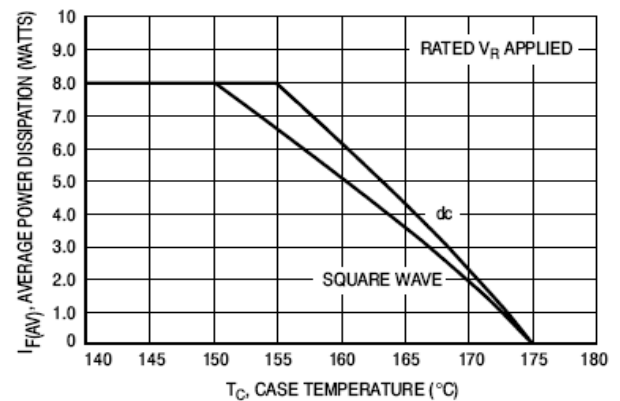


Figure 3. Current Derating, Case, Per Leg

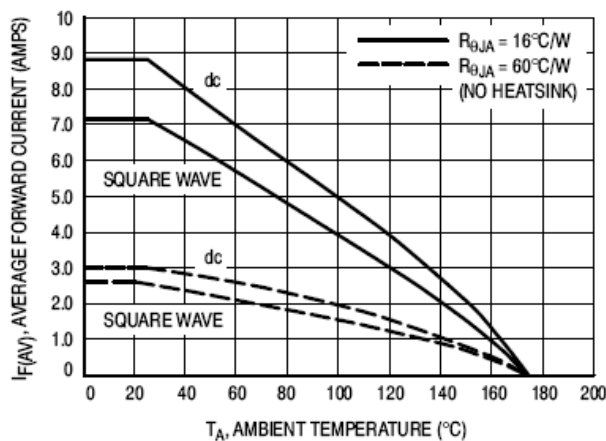


Figure 4. Current Derating, Ambient, Per Leg

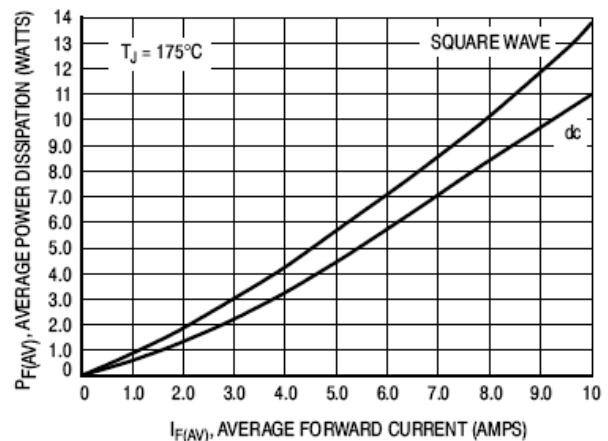


Figure 5. Power Dissipation, Per Leg

Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

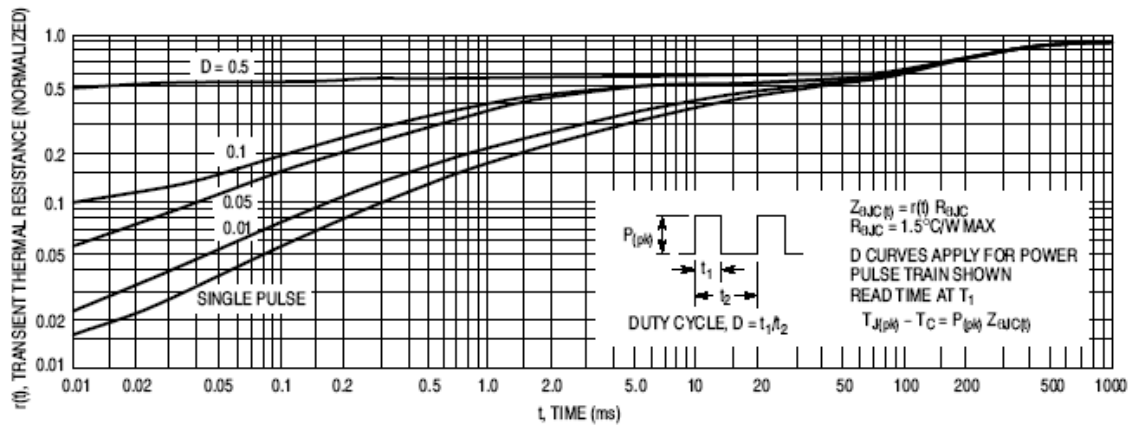


Figure 6. Thermal Response

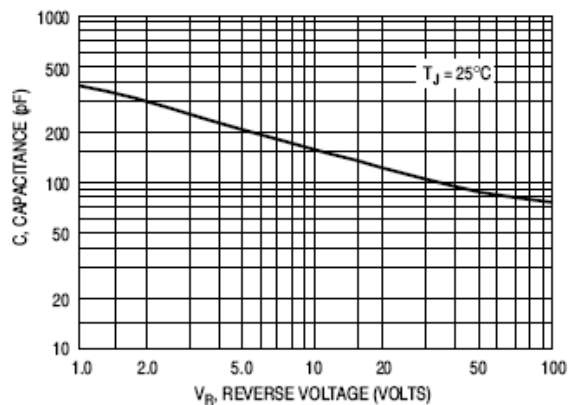
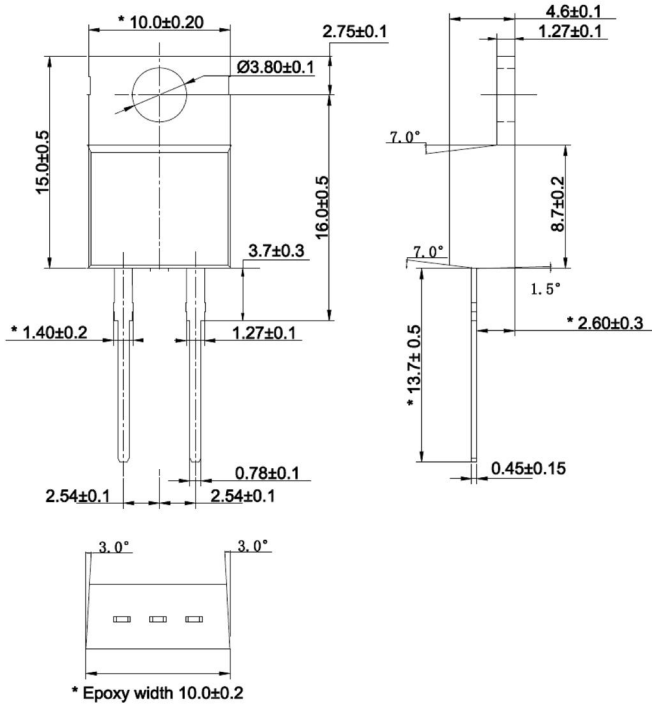


Figure 7. Typical Capacitance

Package Outline Dimensions

in millimeters

TO-220-AC



ITO-220-AC

