GOOD-ARK SEMICONDUCTOR

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 Termainal 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,Irec=0.25A)			T_{rr}	50	ns
Maximum Instantaneous Forward Voltage per Leg	I_F=10A I_F=10A	T_C=25°C T_C=125°C	V_F	1.60 1.50	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage		T_J=25°C T_J=100°C	I_R	10 500	μA μA

Thermal Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Typ.(MUR1060)	Typ.(MUR1060F)	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	2.0	4.0	°C/W
$R_{\theta JA}$	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°C unless otherwise noted)

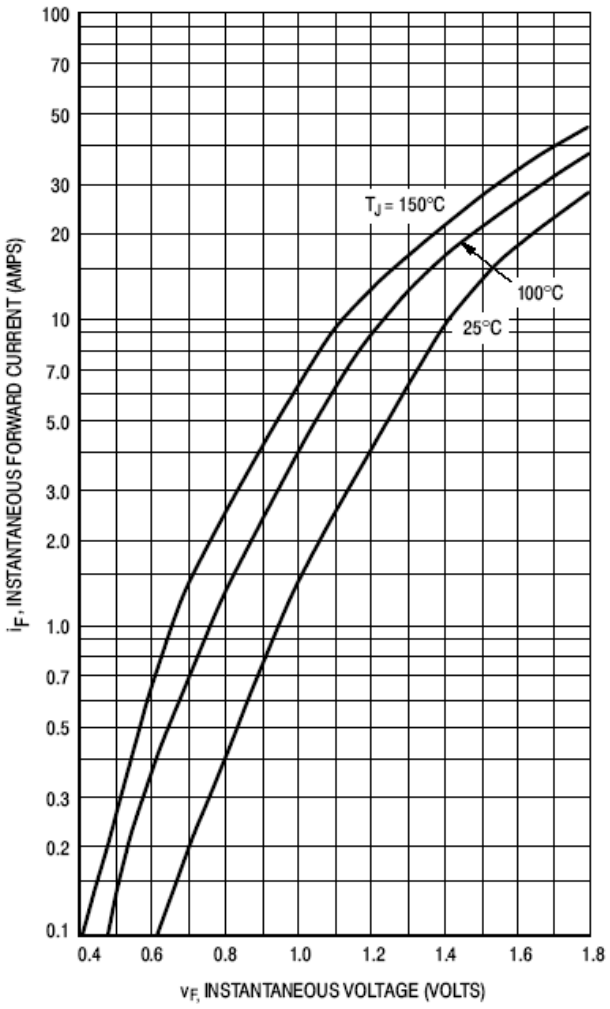


Figure 1. Typical Forward Voltage Per Leg

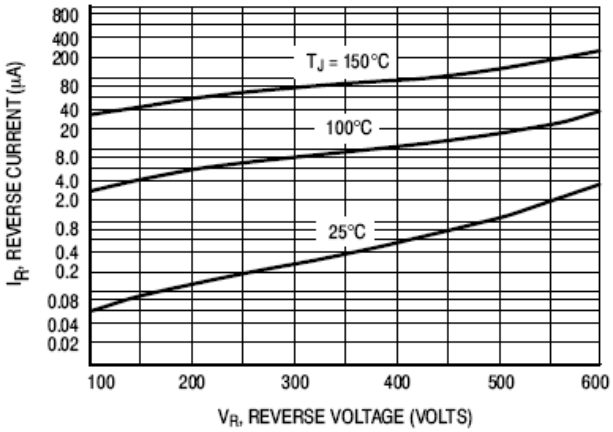


Figure 2. Typical Reverse Current Per Leg

* 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.

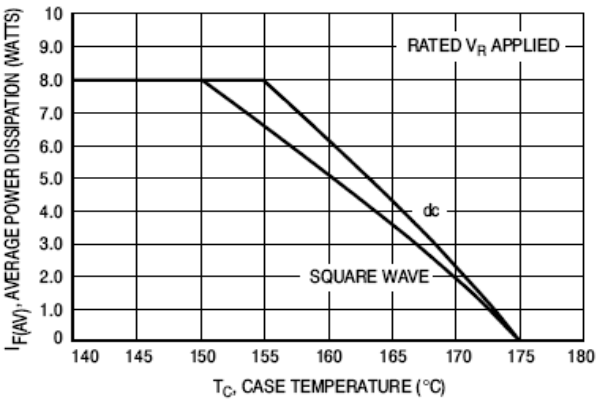


Figure 3. Current Derating, Case, Per Leg

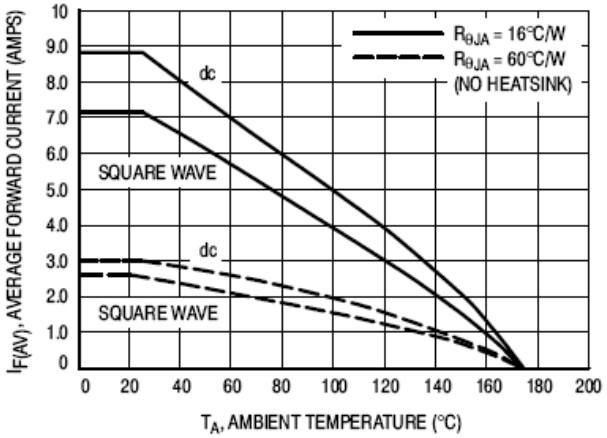


Figure 4. Current Derating, Ambient, Per Leg

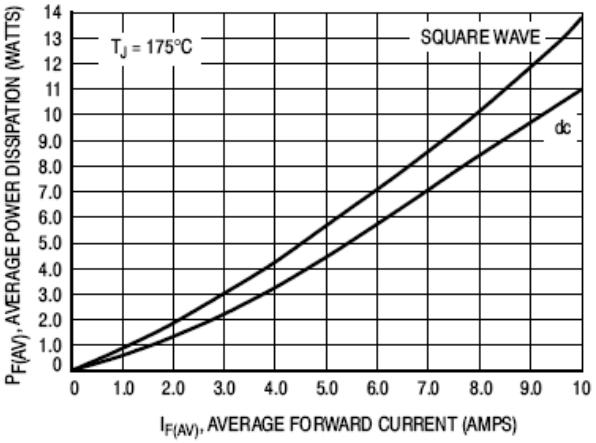


Figure 5. Power Dissipation, Per Leg

Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)

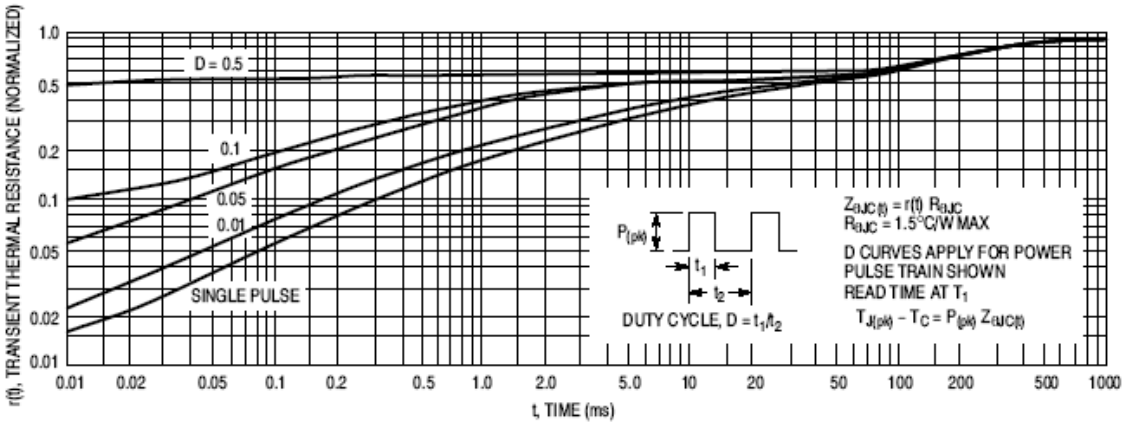


Figure 6. Thermal Response

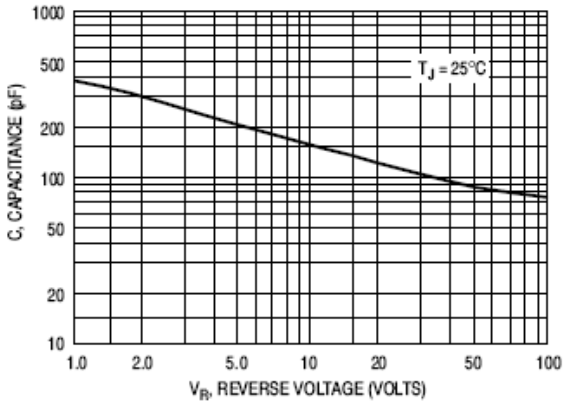
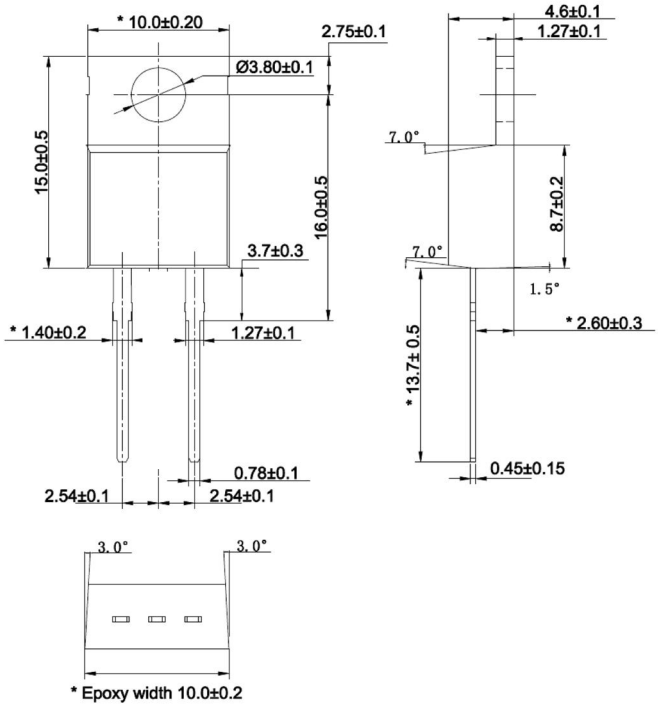


Figure 7. Typical Capacitance

Package Outline Dimensions

in millimeters

TO-220-AC



ITO-220-AC