



MUR1620CT THRU MUR1660CT

16.0 AMPS. Switchmode Power Rectifiers



Voltage Range
200 to 600 Volts
Current
16.0 Ampere

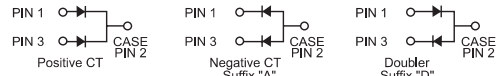
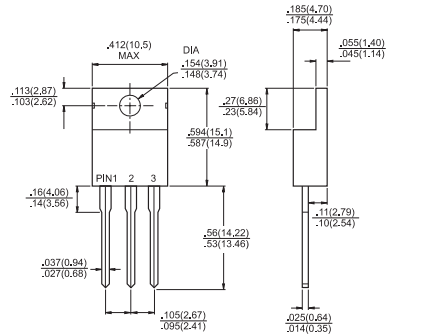
Features

- ❖ Ultrafast 35 and 60 Nanosecond Recovery times
- ❖ 175°C Operating Junction Temperature
- ❖ Popular TO-220 Package
- ❖ Epoxy meets UL94, V_O @ 1/8"
- ❖ High temperature glass passivated junction
- ❖ High voltage capability to 600 volts
- ❖ Low leakage specified @ 150°C case temperature
- ❖ Current derating @ both case and ambient temperatures

Mechanical Data

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

TO-220



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Type Number	Symbol	MUR 1620CT	MUR 1640CT	MUR 1660CT	Units
Peak Repetitive Reverse Voltage	V _{RRM}				
Working Peak Reverse Voltage	V _{RWM}	200	400	600	V
DC Blocking Voltage	V _R				
Average Rectified Forward Current Per Leg	I _{F(AV)}		8.0		A
Total Device, (Rated V _R), T _C =150°C Total Device			16		
Peak Rectified Forward Current (Rated V _R , Square Wave, 20 KHz), T _C =150°C Per Diode Leg	I _{FM}		16		A
Nonrepetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I _{FSM}		100		A
Operating Junction Temperature and Storage Temperature	T _J , T _{STG}		-65 to +175		°C

THERMAL CHARACTERISTICS, PER DIODE LEG

Maximum Thermal Resistance, Junction to Case	R _{θJC}	3.0	2.0	°C/W
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ELECTRICAL CHARACTERISTICS, PER DIODE LEG

Maximum Instantaneous Forward Voltage (Note 1) (I _F =8.0 Amps, T _C =25°C) (I _F =8.0 Amps, T _C =150°C)	V _F	0.975 0.895	1.30 1.300	1.50 1.20	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage @ T _A =25°C @ T _A =125°C	I _R	5.0 250	10 500		uA uA
Maximum Reverse Recovery Time (I _F =0.5 Amp, I _R =1.0 Amp, I _{REC} =0.25 Amp)	T _{rr}	25	50		nS

Note: 1. Pulse Test: Pulse Width = 300 us, Duty Cycle ≤ 2.0%.

RATINGS AND CHARACTERISTIC CURVES (MUR1620CT THRU MUR1660CT)

FIG.1- CURRENT DERATING, CASE, PER LEG

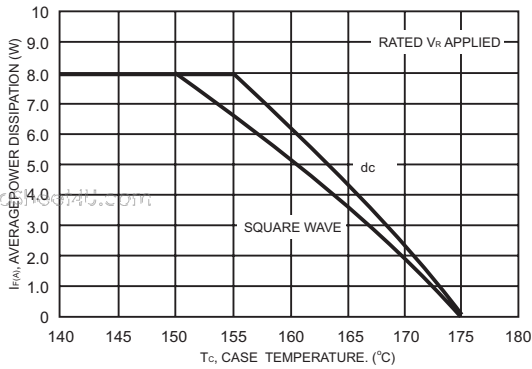
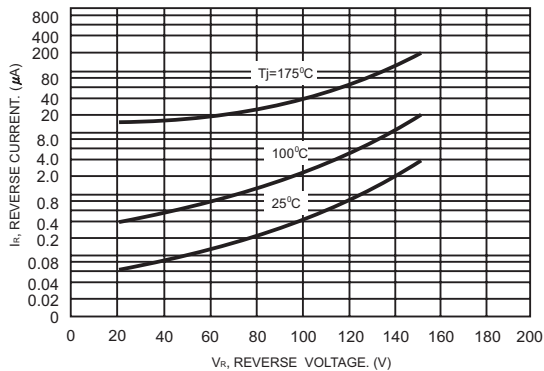


FIG.2- TYPICAL REVERSE CURRENT, PER LEG



*The curves shown are typical for 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.

FIG.4- TYPICAL CAPACITANCE, PER LEG

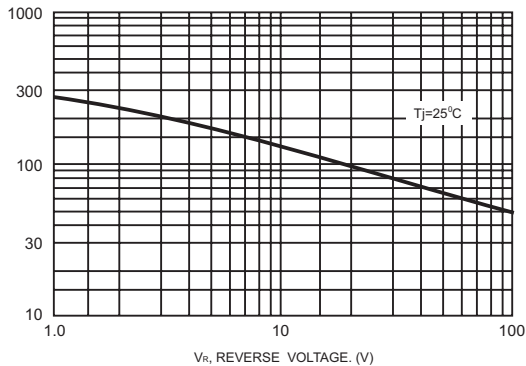


FIG.3- TYPICAL FORWARD VOLTAGE, PER LEG

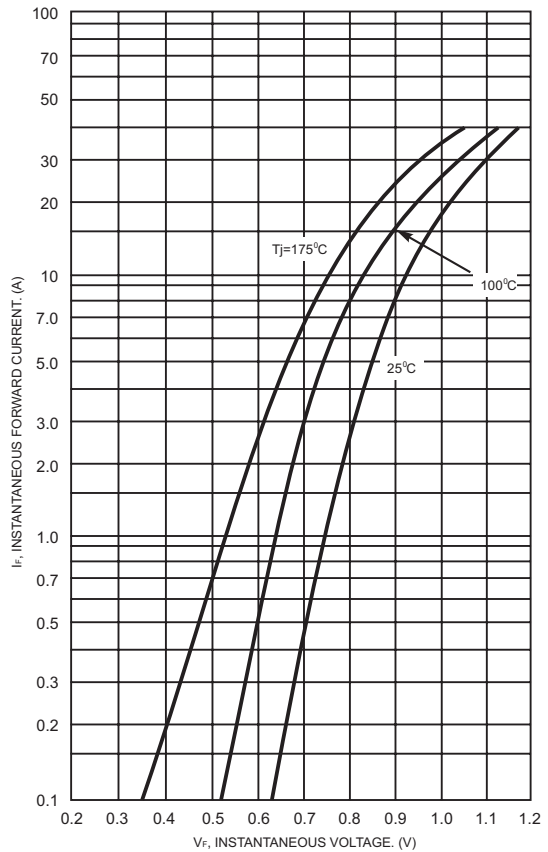


FIG.5- CURRENT DERATING, AMBIENT, PER LEG

