



MURF1620CT THRU MURF1660CT

16.0 AMPS. Switchmode Power Rectifiers



Voltage Range
200 to 600 Volts
Current
16.0 Ampere

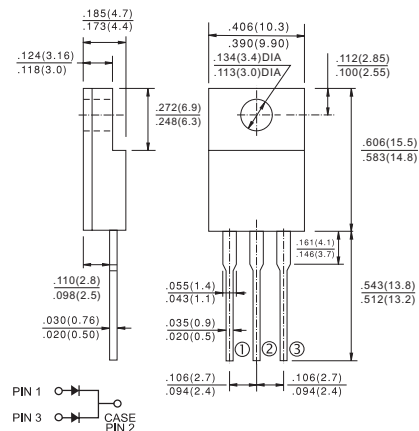
Features

- ✦ Ultrafast 35 and 60 Nanosecond Recovery times
- ✦ 175°C Operating Junction Temperature
- ✦ Popular TO-220 Package
- ✦ Epoxy meets UL94, V₀ @ 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)

ITO-220AB



MAXIMUM RATINGS

Type Number	Symbol	MURF 1620CT	MURF 1640CT	MURF 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	$I_{F(AV)}$				Amps
Total Device, (Rated V_R), $T_c=150^\circ\text{C}$ Total Device		8.0 16			
Peak Rectified Forward Current (Rated V_R , Square Wave, 20 KHz), $T_c=150^\circ\text{C}$ Per Diode Leg	I_{FM}	16			Amps
Nonrepetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	100			Amps
Operating Junction Temperature and Storage Temperature	T_J, T_{STG}	-65 to + 175			°C

THERMAL CHARACTERISTICS, PER DIODE LEG

Typical Thermal Resistance, Junction to Case, Mounted on 2" x 3" x 0.25 Al-Plate.	$R_{\theta_{JC}}$	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, $T_c=25^\circ\text{C}$) ($I_F=8.0$ Amps, $T_c=150^\circ\text{C}$)	V_F	0.975 0.895	1.30 1.300	1.50 1.20	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	I_R	5.0 250	10 500	μA μA	
Maximum Reverse Recovery Time ($I_F=0.5$ Amp, $I_R=1.0$ Amp, $I_{RR}=0.25$ Amp)	T_{rr}	25	50	nS	

Note: 1. Pulse Test: Pulse Width = 300 us, Duty Cycle $\leq 2.0\%$.



RATINGS AND CHARACTERISTIC CURVES (MURF1620CT THRU MURF1660CT)

FIG.1- CURRENT DERATING, CASE, PER LEG

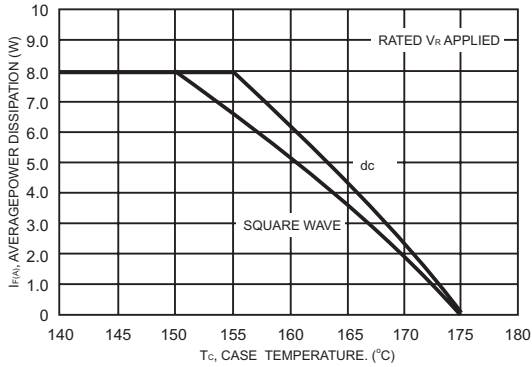


FIG.3- TYPICAL FORWARD VOLTAGE, PER LEG

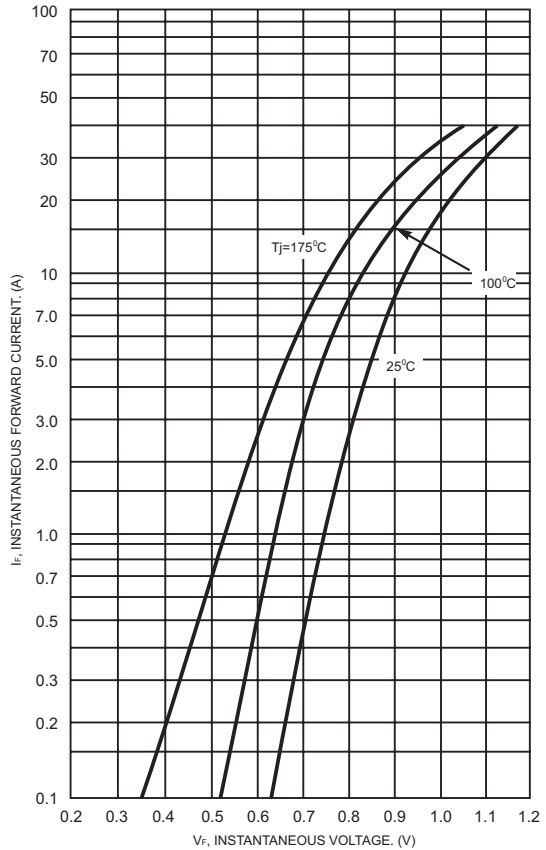
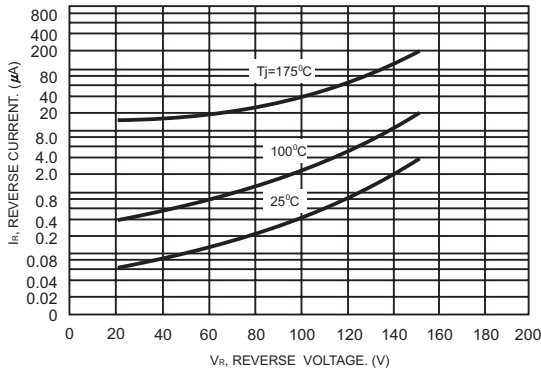


FIG.2- TYPICAL REVERSE CURRENT, PER LEG



*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

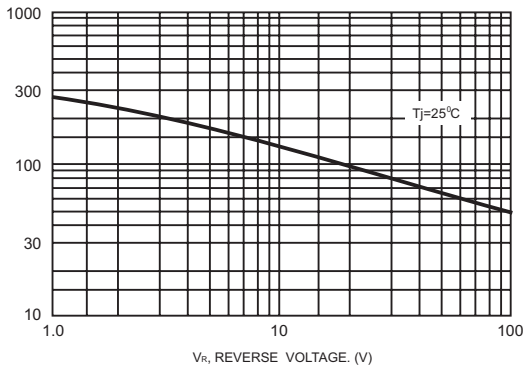


FIG.5- CURRENT DERATING, AMBIENT, PER LEG

