

MUR1620CT - MUR1660CT

16.0 AMPS. Switchmode Power Rectifiers

TO-220AB

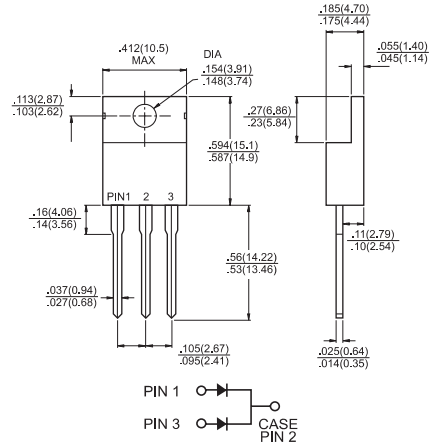


Features

- ✦ 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
- ✦ Terminal : Pure tin plated, lead free
- ✦ 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)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS

Type Number	Symbol	MUR 1620CT	MUR 1640CT	MUR 1660CT	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	200	400	600	V
Average Rectified Forward Current Total Device, (Rated V_R), $T_c=150^\circ\text{C}$ Total Device	$I_{F(AV)}$	8.0 16			Amps
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			$^\circ\text{C}$
Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.0	2.0		$^\circ\text{C} / \text{W}$
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 1.30	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 ($I_F=1.0$ Amp, $di/dt = 50$ Amps / us) ($I_F=0.5$ Amp, $I_R=1.0$ Amp, $I_{REC}=0.25$ Amp)	t_{rr}	35 25	60 50		nS

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

RATINGS AND CHARACTERISTIC CURVES (MUR1620CT THRU MUR1660CT)

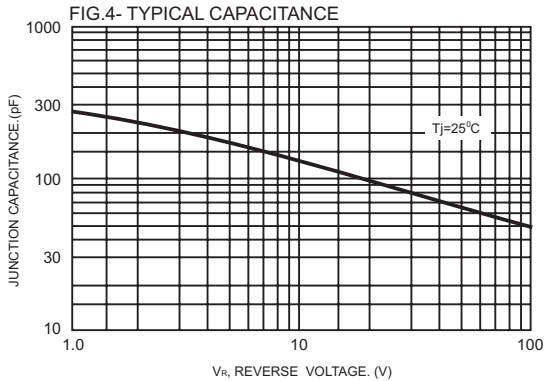
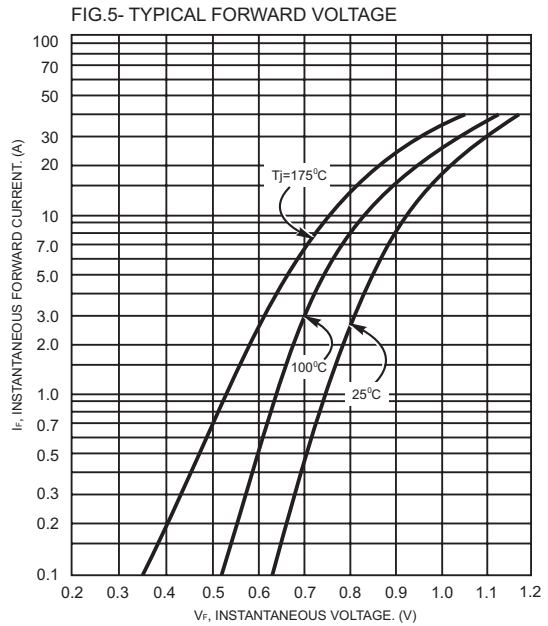
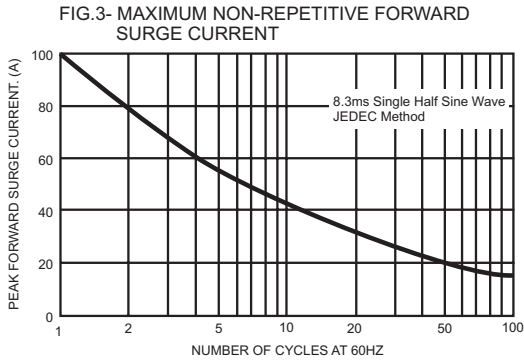
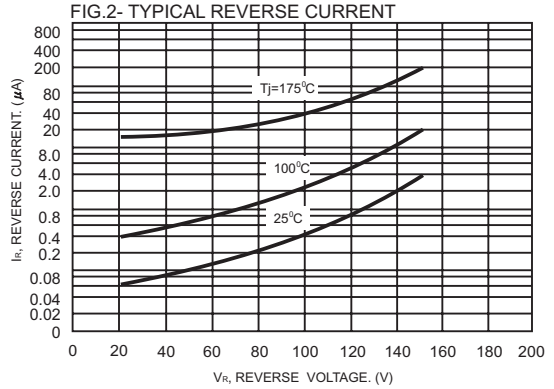
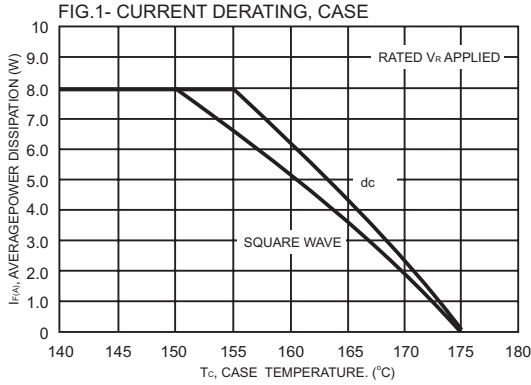
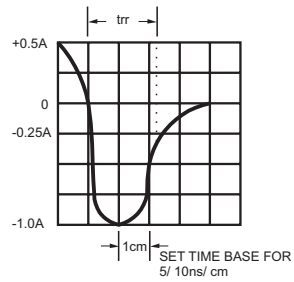
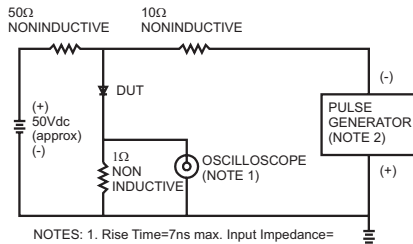


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Source Impedance= 50 ohms