



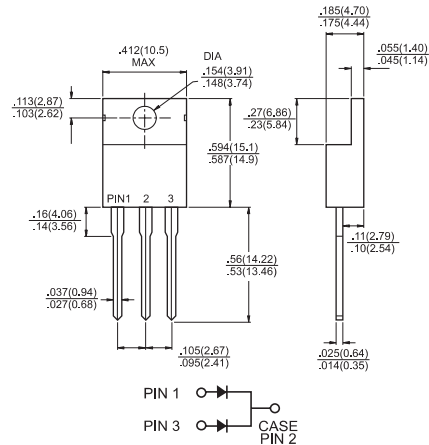
### TO-220AB

## 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: 2.24 grams



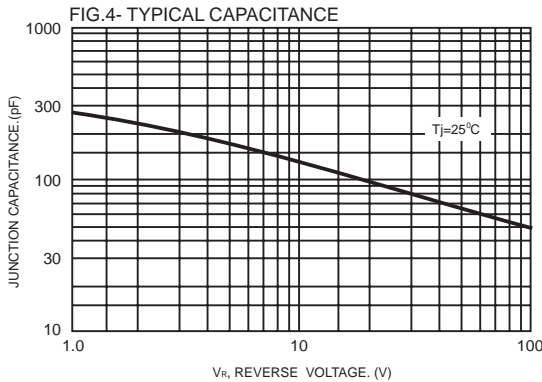
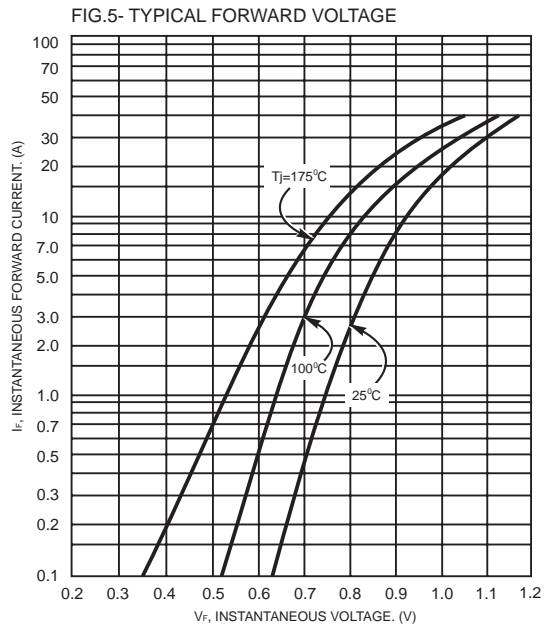
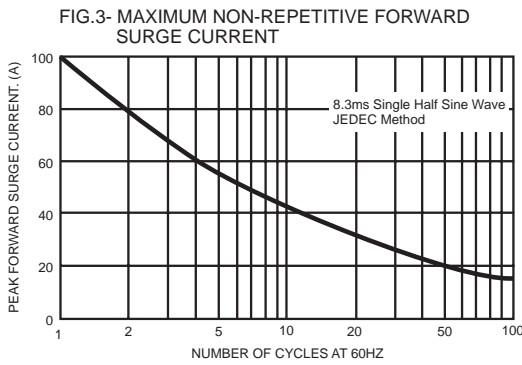
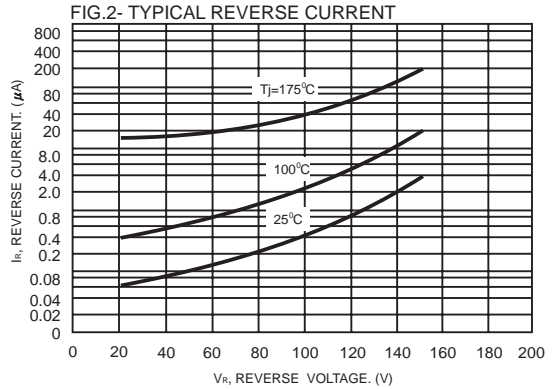
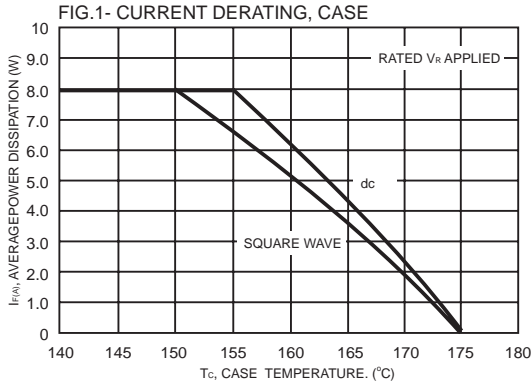
Dimensions in inches and (millimeters)

## 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) (IF=8.0 Amps, $T_c=25^\circ\text{C}$ ) (IF=8.0 Amps, $T_c=150^\circ\text{C}$ )	VF	0.975 0.895	1.30 1.30	1.50 1.20	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	IR	5.0 250	10 500		$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (IF=1.0 Amp, di/dt = 50 Amps / us) (IF=0.5 Amp, IR=1.0 Amp, IREC=0.25 Amp)	trr	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**

