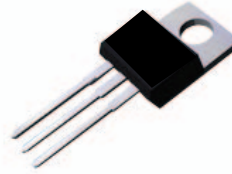


# MUR1660CT/MUR1660FCT

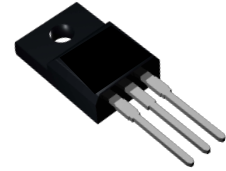
Ultrafast Recovery Rectifiers  
Reverse Voltage 600V Forward Current 16 A

## 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



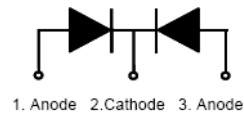
MUR1660CT  
Package: TO-220-AB



MUR1660FCT  
Package: ITO-220-AB

## Mechanical Data

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



Schematic Diagram

## Maximum Ratings & Electrical Characteristics

( $T_A=25^\circ\text{C}$  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 @ $T_c=105^\circ\text{C}$	Total Device Per Diode	$I_F(AV)$	16 8	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode		$I_{FSM}$	125	A
Voltage Rate of Change (rated $V_R$ )		$DV/dt$	10000	V/ $\mu\text{s}$
Operating Junction Temperature Range		$T_J$	- 55 to+150	$^\circ\text{C}$
Storage Temperature Range		$T_{STG}$	- 55 to+150	$^\circ\text{C}$
Maximum Reverse Recover Time ( $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_{rec}=0.25\text{A}$ )		$T_{rr}$	50	ns
Maximum Instantaneous Forward Voltage per Leg	$I_F=8\text{A}$ $T_c=25^\circ\text{C}$ $I_F=8\text{A}$ $T_c=125^\circ\text{C}$	$V_F$	1.50 1.40	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	$T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	10 500	$\mu\text{A}$ $\mu\text{A}$
<b>Thermal Characteristics <math>T_A=25^\circ\text{C}</math> unless otherwise noted</b>				
Symbol	Parameter	Typ.(MUR1660CT)	Typ.(MUR1660FCT)	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	2.0	4.0	$^\circ\text{C/W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5	62.5	$^\circ\text{C/W}$

**Note:** Pulse test:300us pulse width, duty cycle=2%

## Ratings and Characteristics Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

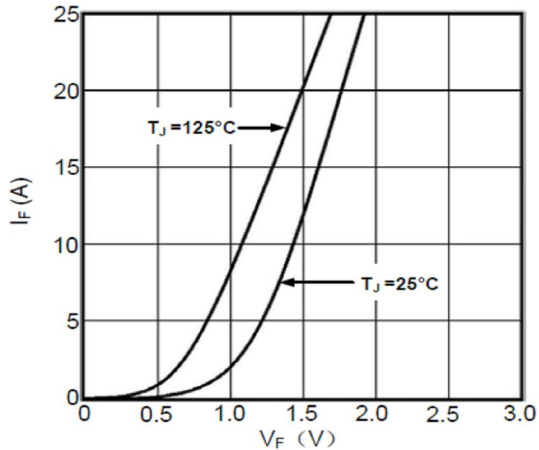


Fig1. Forward Voltage Drop vs Forward Current

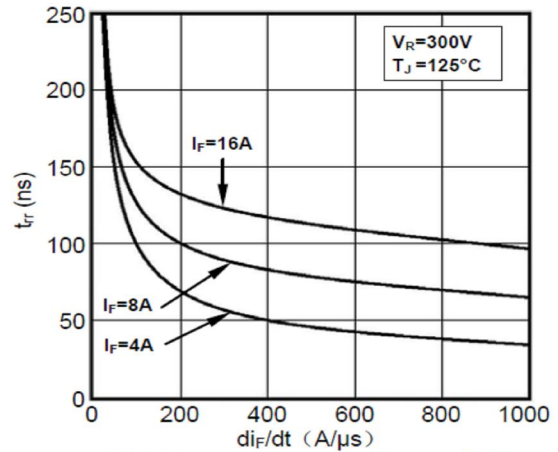


Fig2. Reverse Recovery Time vs  $di_F/dt$

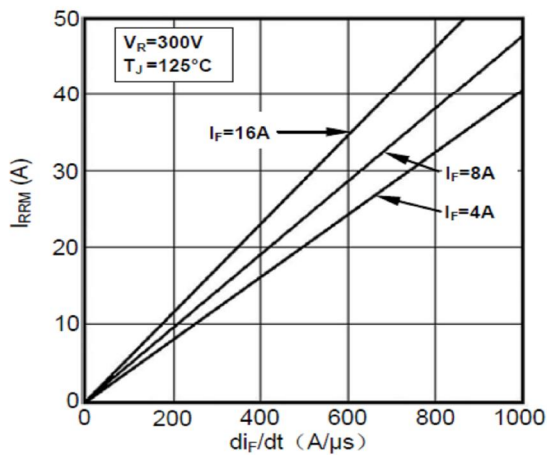


Fig3. Reverse Recovery Current vs  $di_F/dt$

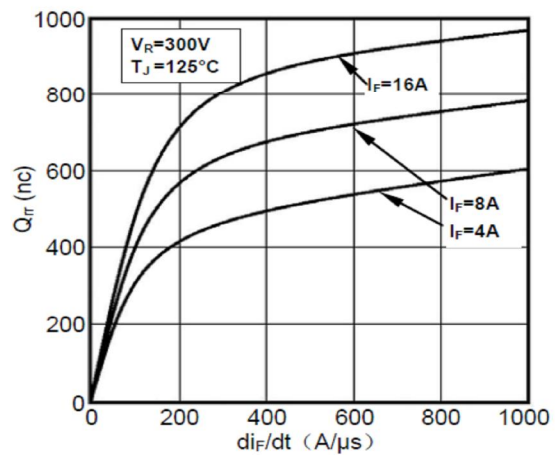


Fig4. Reverse Recovery Charge vs  $di_F/dt$

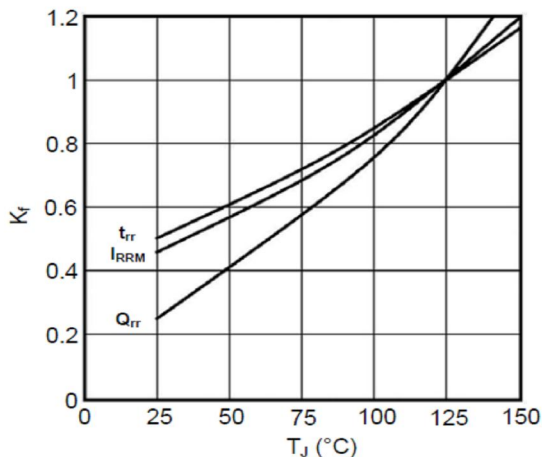


Fig5. Dynamic Parameters vs Junction Temperature

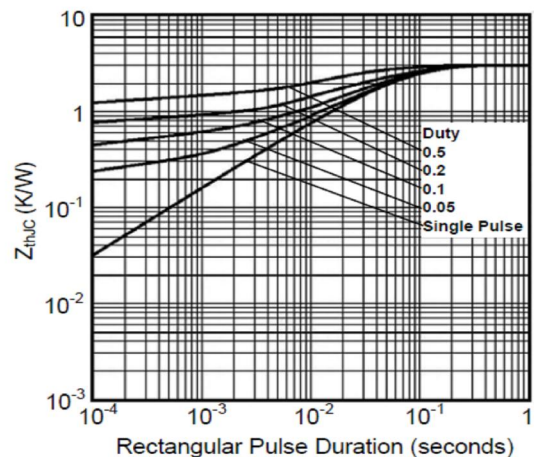


Fig6. Transient Thermal Impedance

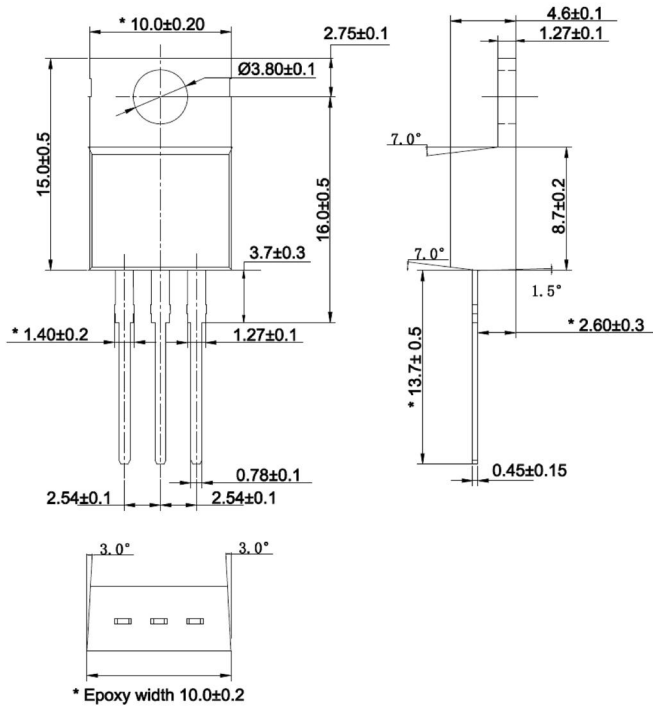
# MUR1660CT/MUR1660FCT

Ultrafast Recovery Rectifiers  
Reverse Voltage 600V Forward Current 16 A

## Package Outline Dimensions

in millimeters

TO-220-AB



ITO-220-AB

