GOOD-ARK SEMICONDUCTOR

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



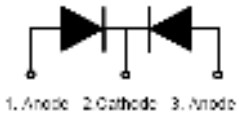
MUR1660CT
Package: TO-220-AB



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 yemperature for soldering purposes: 260°C Max. for 10 sec
- 50 units per plastic tube



Schematic Diagram

Maximum Ratings & Electrical Characteristics

(T_A=25°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 Total Device @ T_c=105°C 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/μs
Operating Junction Temperature Range			T_J	- 55 to+150	°C
Storage Temperature Range			T_{STG}	- 55 to+150	°C
Maximum Reverse Recover Time (I_F=0.5A, I_R=1.0A,Irec=0.25A)			T_{rr}	50	ns
Maximum Instantaneous Forward Voltage per Leg	I_F=8A I_F=8A	T_C=25°C T_C=125°C	V_F	1.50 1.40	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage		T_J=25°C T_J=100°C	I_R	10 500	μA μA

Thermal Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Typ.(MUR1660CT)	Typ.(MUR1660FCT)	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	2.0	4.0	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5	62.5	°C/W

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

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Ratings and Characteristics Curves (T_A = 25°C unless otherwise noted)

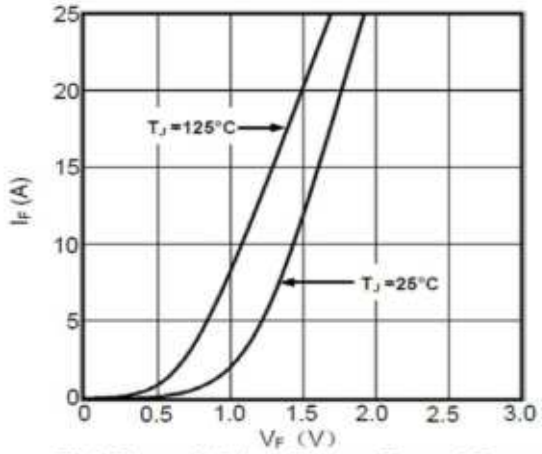


Fig1. Forward Voltage Drop vs Forward Current

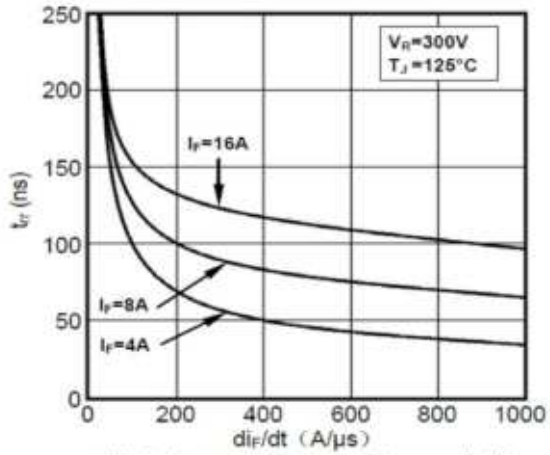


Fig2. Reverse Recovery Time vs di_F/dt

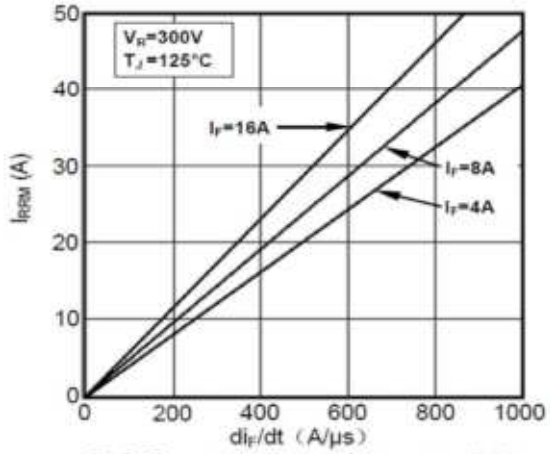


Fig3. Reverse Recovery Current vs di_F/dt

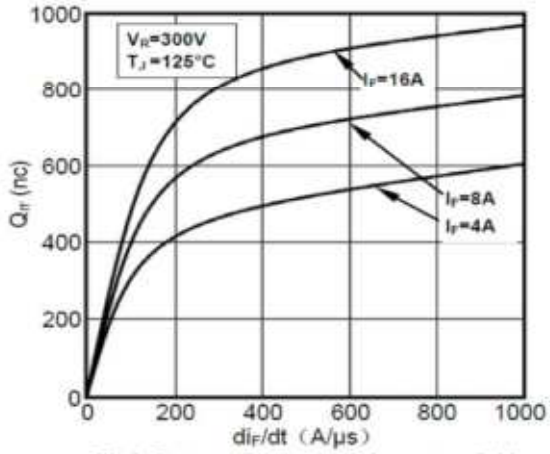


Fig4. Reverse Recovery Charge vs di_F/dt

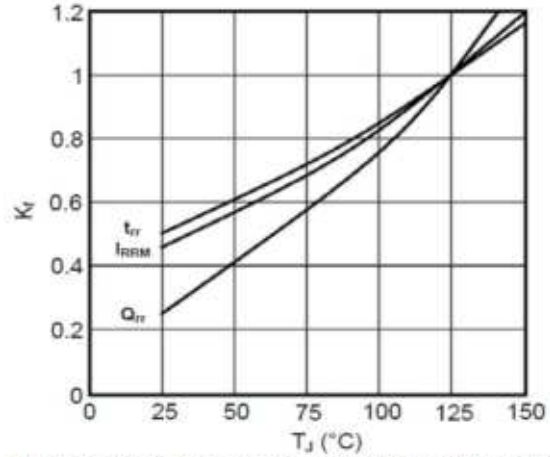


Fig5. Dynamic Parameters vs Junction Temperature

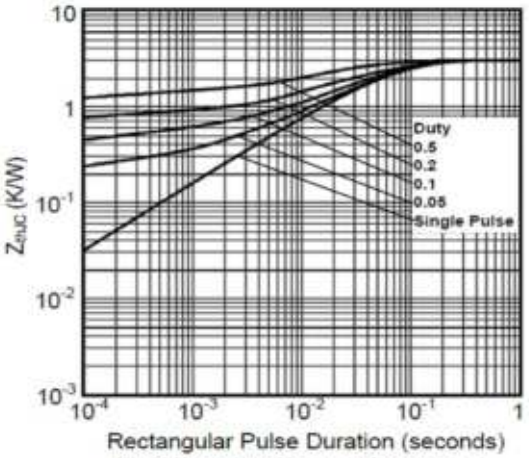


Fig6. Transient Thermal Impedance

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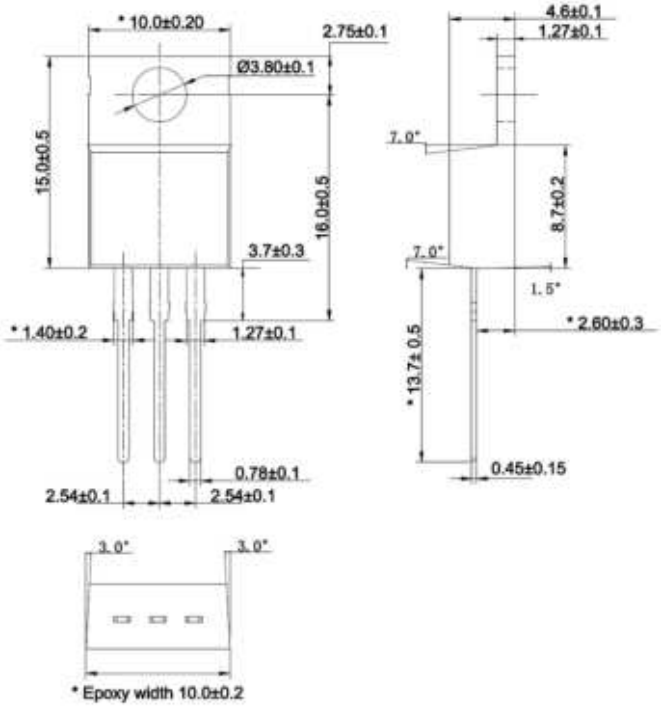
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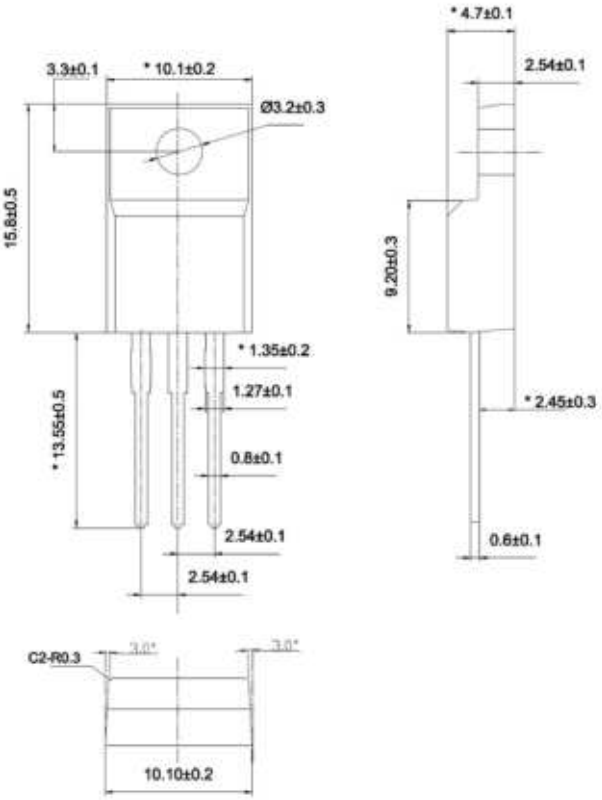
Package Outline Dimensions

in millimeters

TO-220-AB



ITO-220-AB



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