

MUR2020CT/ MUR2020FCT

Super Fast Recovery Planar Rectifier
 Reverse Voltage 200V Forward Current 20A

Features

- FRED (Planar) wafer construction
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0



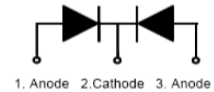
MUR2020CT
 Package: TO-220-AB



MUR2020FCT
 Package: ITO-220-AB

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams(approximately)
- Finish: All external surfaces corrosion resistant and terminal leads are readily solderable
- Lead Temperature for Soldering Purposes: 260°C max. for 10 sec
- Shipped 50 units per plastic tube



Maximum Ratings and Electrical Characteristics

($T_A = 25^\circ\text{C}$ unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MUR2020(F)CT	UNIT
Maximum Repetitive Peak Reverse Voltage			V_{RRM}	200	V
Working Peak Reverse Voltage			V_{RWM}	200	V
Maximum DC Blocking Voltage			V_{DC}	200	V
Maximum Average Forward Rectified Current at $T_C=105^\circ\text{C}$ Total Device per Diode			$I_{F(AV)}$	20 10	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/us
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 ($I_F=0.5A$, $I_R=1.0A$, $I_{rec}=0.25A$)			T_{rr}	35	ns
Maximum Instantaneous Forward Voltage per Leg	$I_F=10A$ $I_F=10A$	$T_C=25^\circ\text{C}$ $T_C=125^\circ\text{C}$	V_F	1.10 1.00	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	μA
Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted					
Symbol	Parameter		TYP.(TO-220-AB)	TYP.(ITO-220-AB)	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%

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

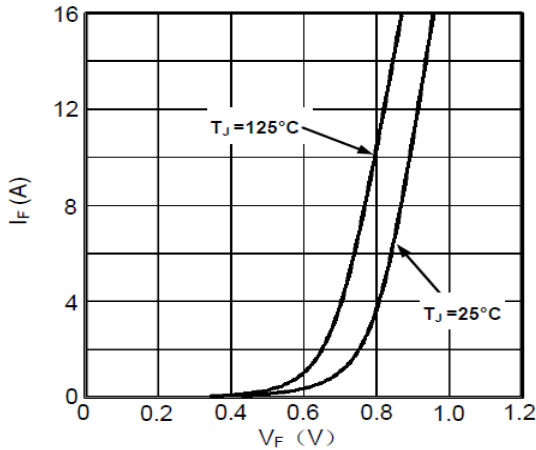


Fig1. Forward Voltage Drop vs Forward Current

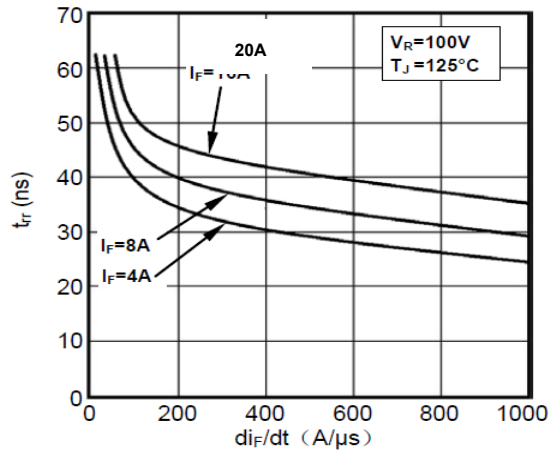


Fig2. Reverse Recovery Time vs di_F/dt

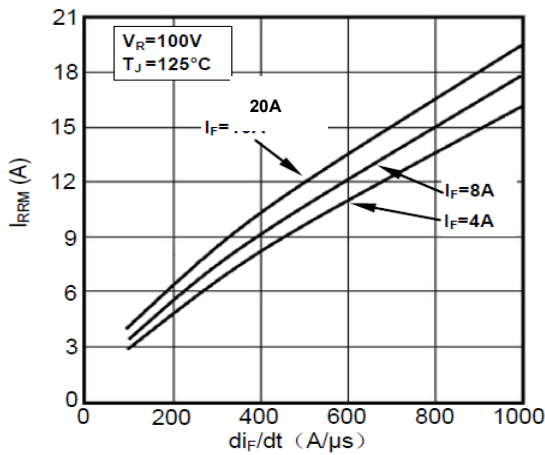


Fig3. Reverse Recovery Current vs di_F/dt

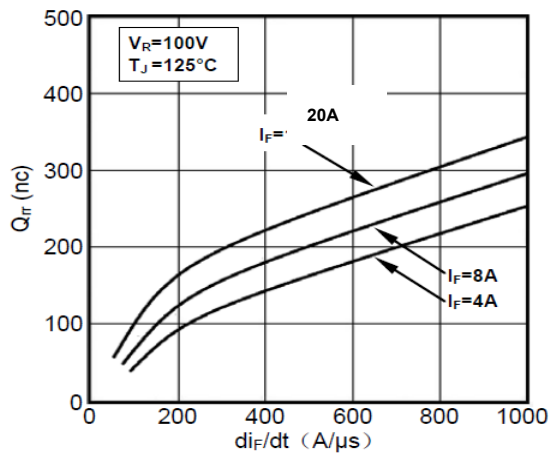


Fig4. Reverse Recovery Charge vs di_F/dt

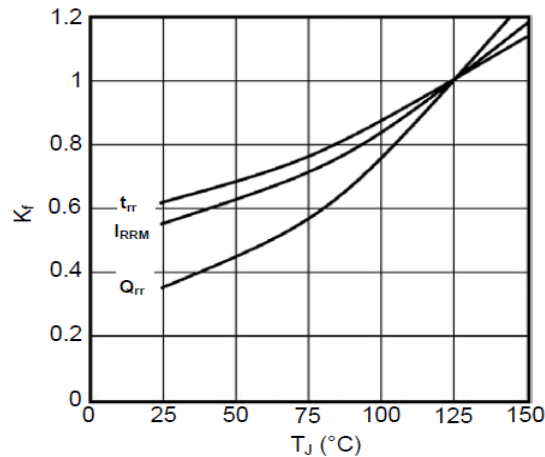


Fig5. Dynamic Parameters vs Junction Temperature

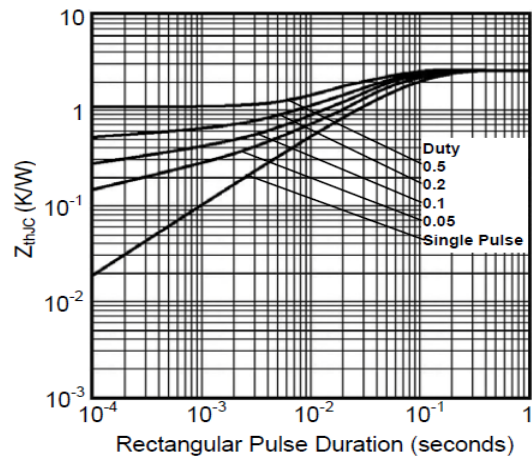


Fig6. Transient Thermal Impedance

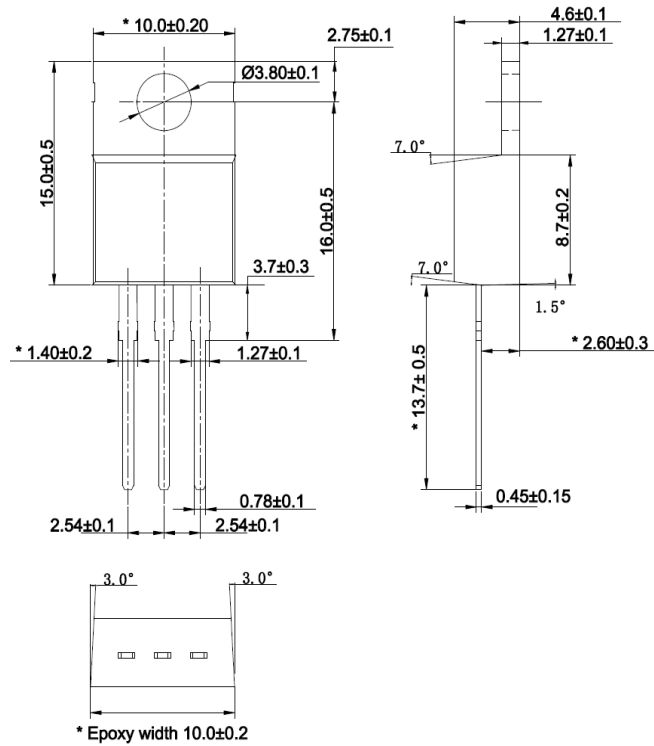
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Package Outline Dimensions

Unit: millimeters

TO-220-AB



ITO-220--AB

