

MUR2020CT/ MUR2020FCT

Super Fast Recovery Rectifiers
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



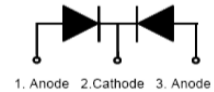
MUR2020CT
Package: TO-220-AB



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°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°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	°C
Storage Temperature Range				T _{STG}	-55 to+150	°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°C T _C =125°C	V _F	1.10 1.00	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage		T _J =25°C T _J =100°C		I _R	10 500	uA uA
Thermal Characteristics T _A =25°C unless otherwise noted						
Symbol	Parameter	TYP.(TO-220-AB)		TYP.(ITO-220-AB)		Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg	2.0		4.0		°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient per Leg	62.5		62.5		°C/W

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

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

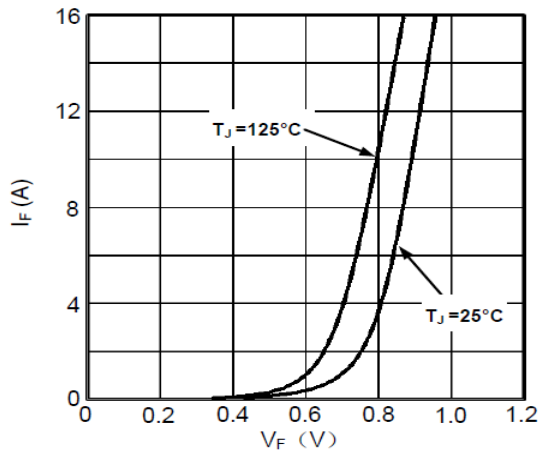


Fig1. Forward Voltage Drop vs Forward Current

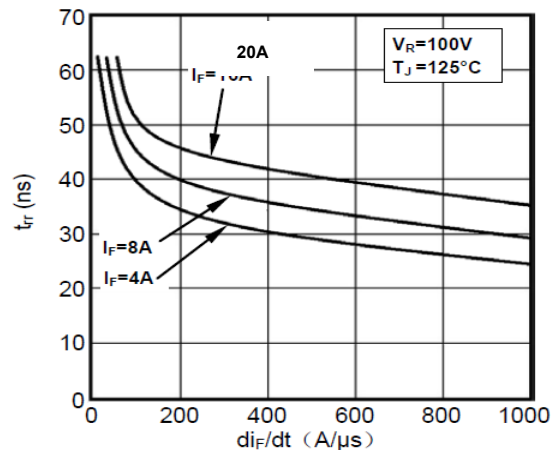


Fig2. Reverse Recovery Time vs di_F/dt

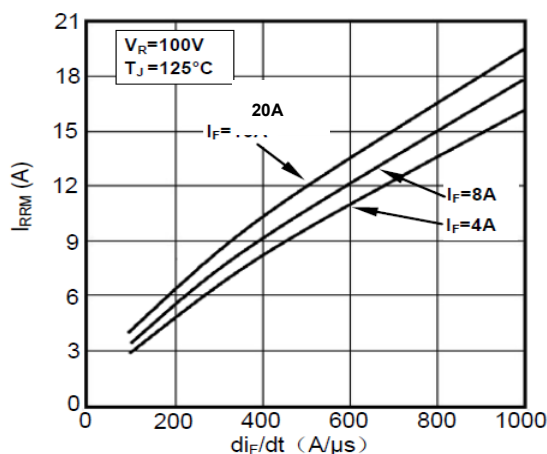


Fig3. Reverse Recovery Current vs di_F/dt

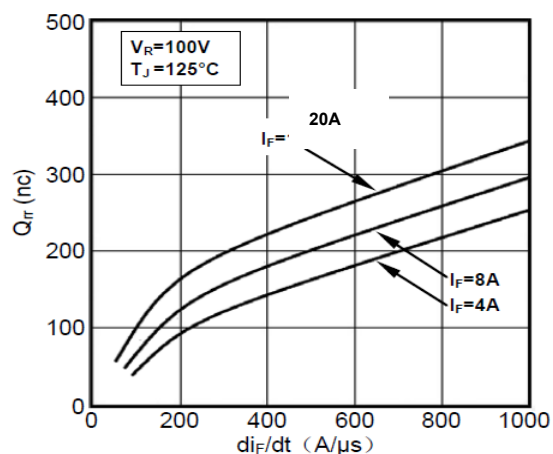


Fig4. Reverse Recovery Charge vs di_F/dt

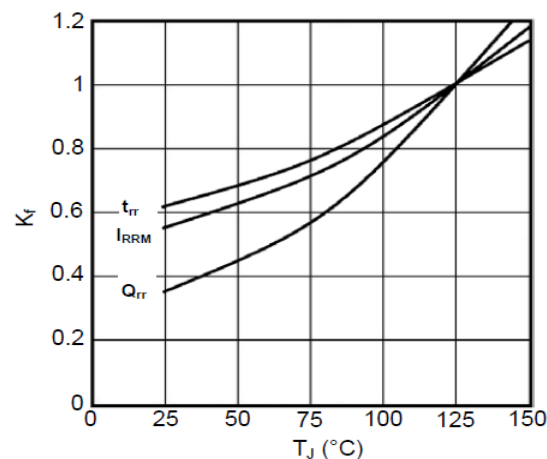


Fig5. Dynamic Parameters vs Junction Temperature

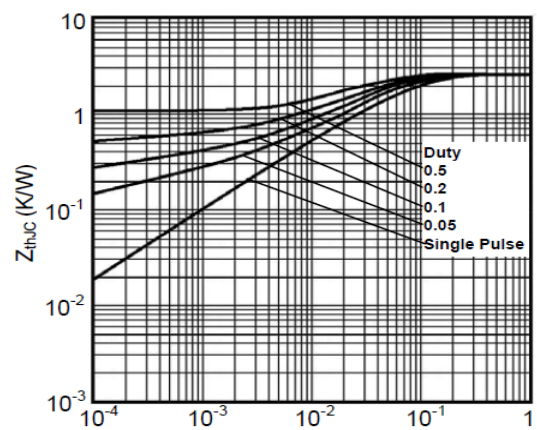


Fig6. Transient Thermal Impedance

