

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



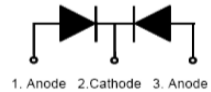
MUR2020CT
 Package: TO-220-AB



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°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 |
| 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%

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

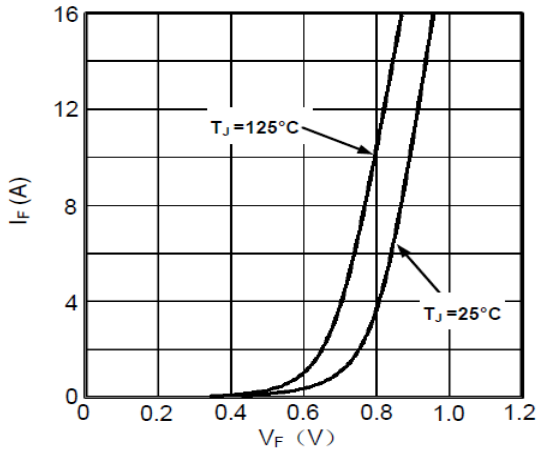


Fig1. Forward Voltage Drop vs Forward Current

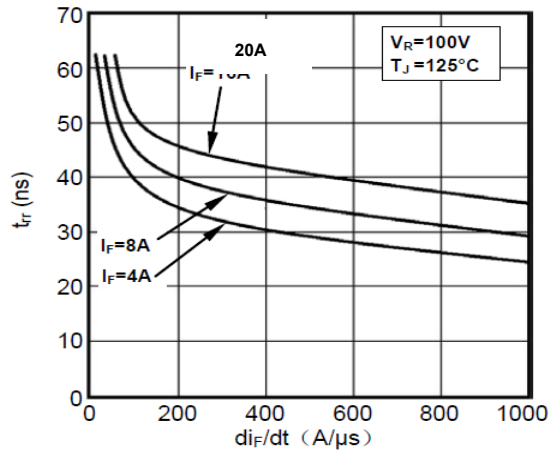


Fig2. Reverse Recovery Time vs di_F/dt

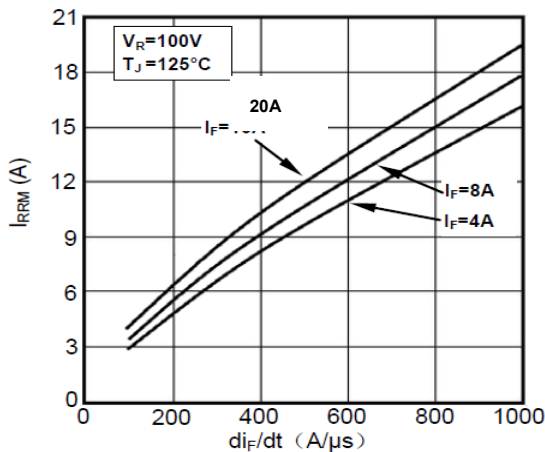


Fig3. Reverse Recovery Current vs di_F/dt

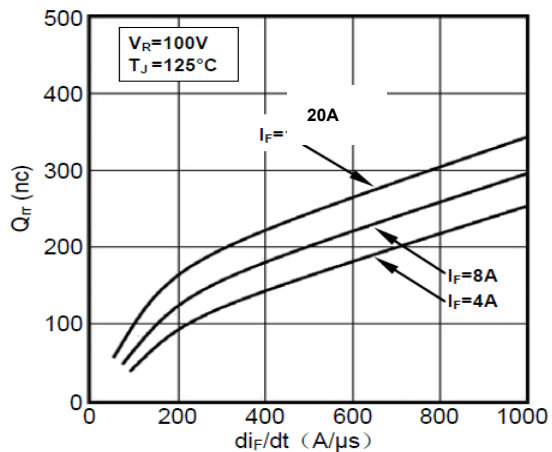


Fig4. Reverse Recovery Charge vs di_F/dt

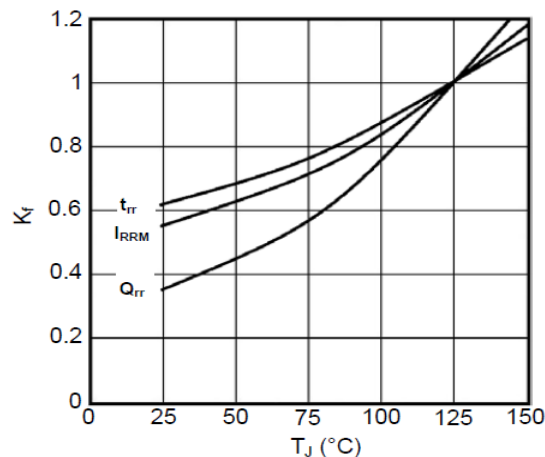


Fig5. Dynamic Parameters vs Junction Temperature

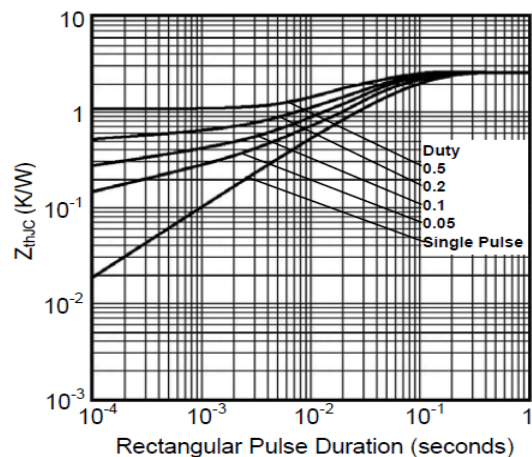


Fig6. Transient Thermal Impedance

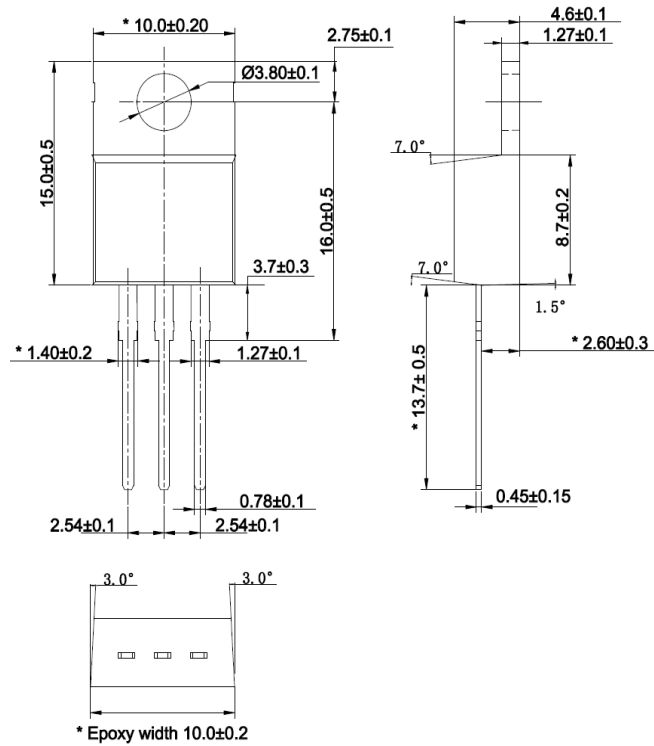
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Package Outline Dimensions

Unit: millimeters

TO-220-AB



ITO-220--AB

