



MUR2020CT THRU MUR2060CT

SUPER FAST RECTIFIERS

Reverse Voltage - 200 to 600 Volts Forward Current - 20.0 Amperes

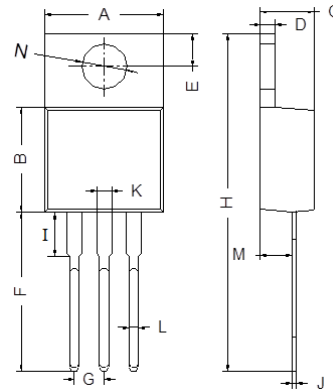
FEATURES

- Low cost.
- Low leakage.
- Low forward voltage drop.
- High current capability.
- Easily cleaned with Alcohol, Isopropanol and Similar solvents.
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

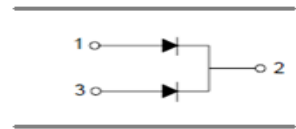
- Case: TO-220AB
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

TO-220AB



| TO-220AB | | |
|----------|-------|-------|
| Dim | Min | Max |
| A | 9.80 | 10.30 |
| B | 8.30 | 8.90 |
| C | 4.37 | 4.77 |
| D | 1.10 | 1.45 |
| E | 2.62 | 2.87 |
| F | 13.46 | 14.22 |
| G | 2.41 | 2.67 |
| H | 28.40 | 29.16 |
| I | 3.55 | 4.05 |
| J | 0.35 | 0.58 |
| K | 1.20 | 1.32 |
| L | 0.68 | 0.94 |
| M | 2.40 | 2.60 |
| N | 3.71 | 3.91 |

All Dimensions in mm



MAXIMUM RATING operating temperature range applies unless otherwise specified

| Symbol | Parameter | MUR2020 CT | MUR2030 CT | MUR2040 CT | MUR2060 CT | Unit |
|-----------------|---|-------------|------------|------------|------------|--------------|
| V_{RRM} | Reverse Peak Voltage | 200 | 300 | 400 | 600 | V |
| V_{RMS} | RMS Voltage | 140 | 210 | 280 | 420 | V |
| V_{DC} | DC Blocking Voltage | 200 | 300 | 400 | 600 | V |
| $I_{F(AV)}$ | Average Forward Rectified Current @ $T_A=100^\circ C$ | 20.0 | | | | A |
| I_{FSM} | Peak Forward Surge Current 8.3ms Single Half-sine-wave superimposed on Rsted Load | 100 | | | | A |
| I_R | Reverse Current $V_R=V_{RRM}, T_A=25^\circ C$ $V_R=V_{RRM}, T_A=150^\circ C$ | 5.0 250 | 10 500 | | | μA |
| V_F | Forward Voltage $I_F=10A$ | 0.98 | 1.30 | 1.50 | | V |
| t_{rr} | Reverse Recovery Time $I_F=0.5A, I_R=1A, I_{rr}=0.25A$ | 25 | 50 | | | ns |
| $R_{\theta JC}$ | Typical Thermal Resistance Junction to Case | 7.0 | | | | $^\circ C/W$ |
| T_j, T_{stg} | Operating Junction and Storage Temperature Range | -55 to +150 | | | | $^\circ C$ |

Note 1: The data tested by surface mounted on a 4.15cm * 5.4cm * 0.25cm aluminum heatsink



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

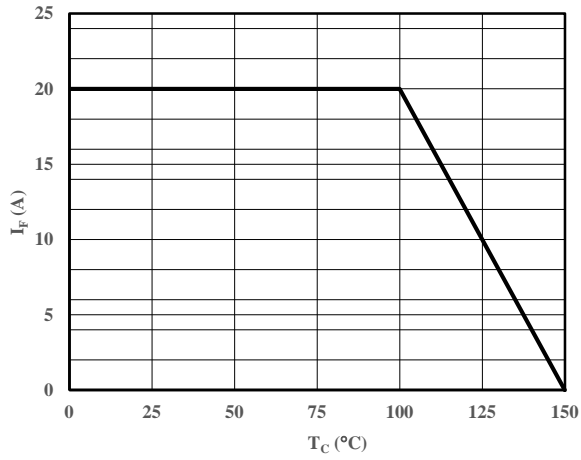


Fig 1 Current Derating Curve

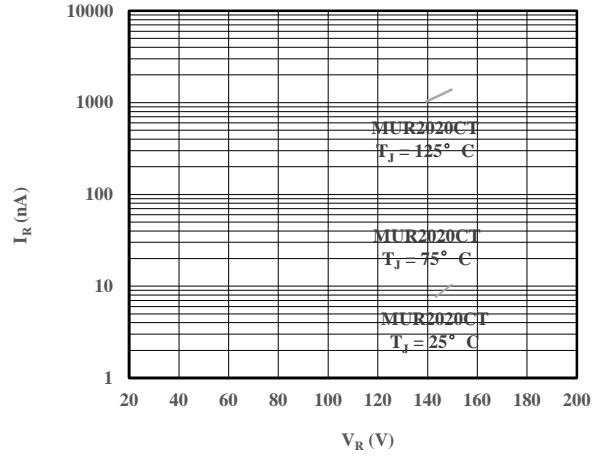


Fig 2 Typical Reverse Characteristic

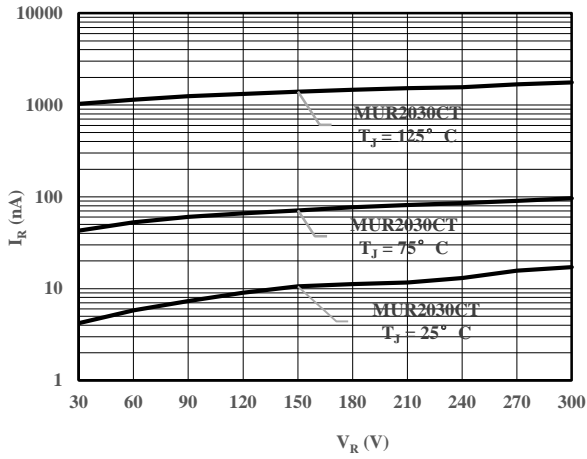


Fig 3 Typical Reverse Characteristic

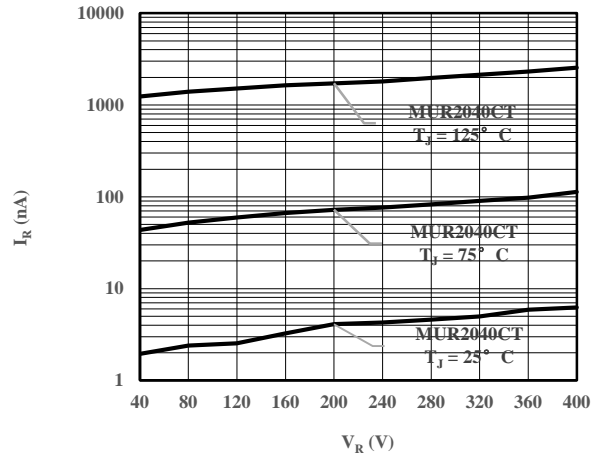


Fig 4 Typical Reverse Characteristic

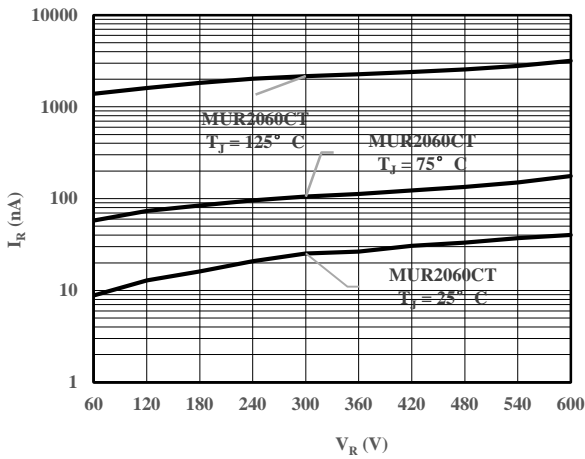


Fig 5 Typical Reverse Characteristic

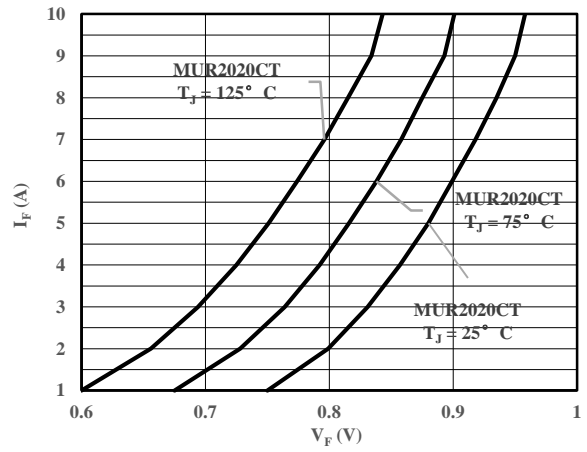


Fig 6 Typical Forward Characteristic

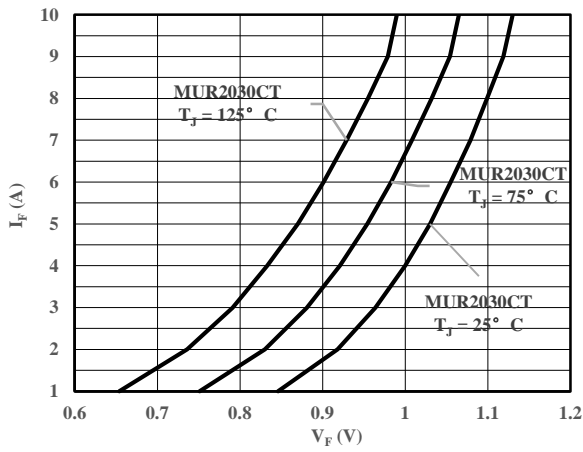


Fig 7 Typical Forward Characteristic

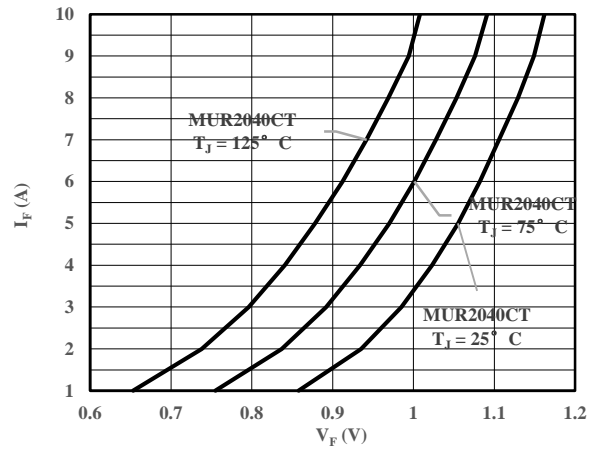


Fig 8 Typical Forward Characteristic

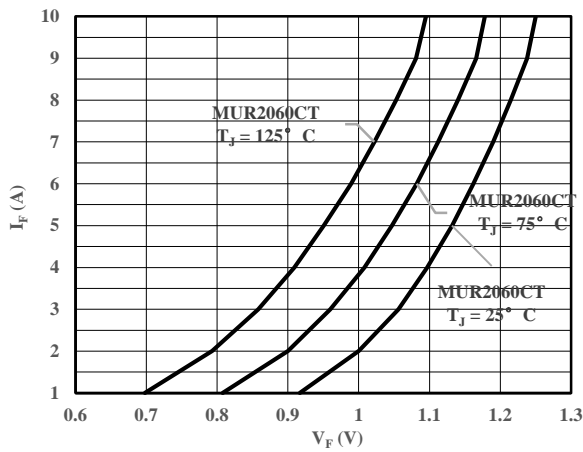


Fig 9 Typical Forward Characteristic