



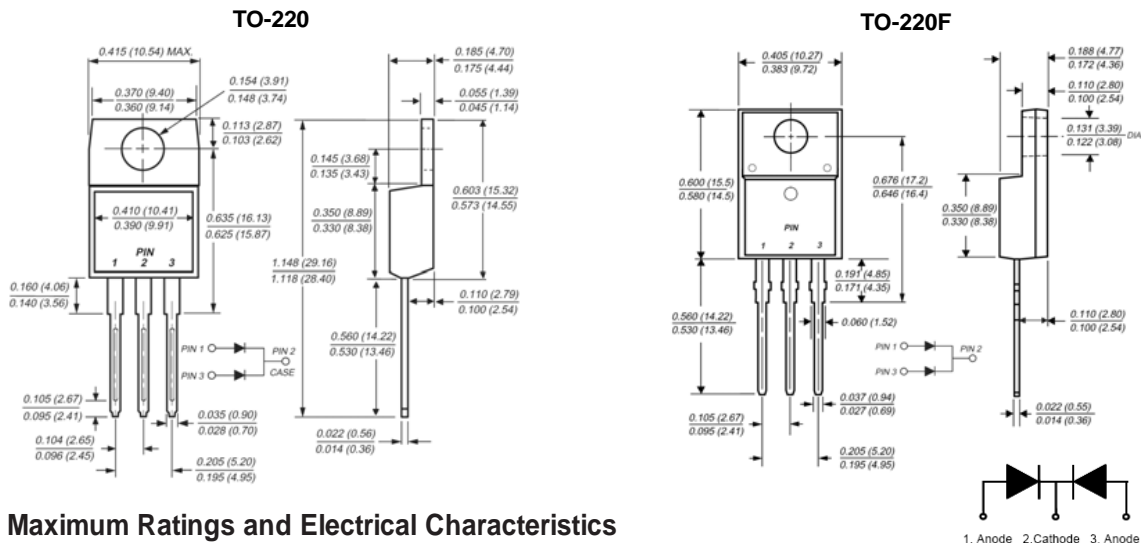
Glass passivated super fast rectifier
Reverse voltage 400 to 600 volts forward current 16 ampers

Features

- ◆ Low power loss, high efficiency
- ◆ Low forward voltage, high current capability
- ◆ High surge capacity
- ◆ Super fast recovery times, high voltage

Mechanical Data

- ◆ Case: TO-220AB full molded plastic package
- ◆ Terminals: Lead solderable per MIL-STD-202, Method 208
- ◆ Polarity: As marked
- ◆ Standard packaging: Any
- ◆ Weight: 0.08 ounces, 2.24 grams



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter | Symbol | MUR1640CT | MUR1660CT | Unit |
|--|-----------------|---------------------------|-----------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 400 | 600 | Volts |
| Maximum RMS voltage | V_{RMS} | 400 | 600 | Volts |
| Maximum DC blocking voltage | V_{DC} | 400 | 600 | Volts |
| Maximum average forward rectified current at $T_c=105^\circ\text{C}$ | $I_{F(AV)}$ | 16 | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 125 | | Amps |
| Maximum instantaneous forward voltage at 8.0A per element | V_F | 1.3 | 1.5 | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | 50 | 500 | μA |
| | | @ $T_c=25^\circ\text{C}$ | | |
| | | @ $T_c=100^\circ\text{C}$ | | |
| Maximum reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{tr}=0.25\text{A}$ | t_{rr} | 50 | | nS |
| Typical junction capacitance at 4.0V, 1MHz | C_J | 62 | | pF |
| Typical thermal resistance | $R_{\theta JC}$ | TO-220 : 2 TO-220F : 4 | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | $^\circ\text{C}$ |

Note:

1. Screw mounting with 4-40 screw, where washer diameter is $\leq 4.9\text{mm}$ (0.19")
2. Pulse test: 300us pulse width, 1% duty cycle



MUR1640CT thru MUR1060CT MUR1640FCT thru MUR1660FCT

RATINGS AND CHARACTERISTIC CURVES

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

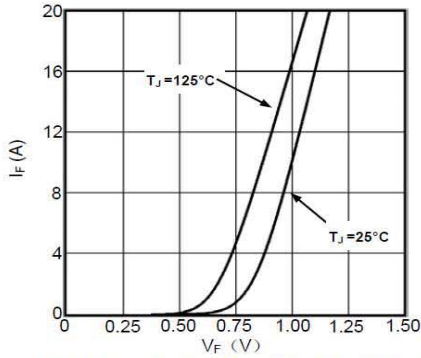


Fig1. Forward Voltage Drop vs Forward Current

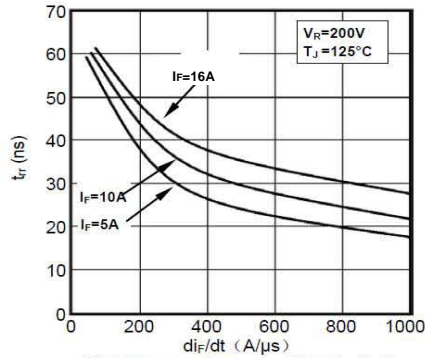


Fig2. Reverse Recovery Time vs di_F/dt

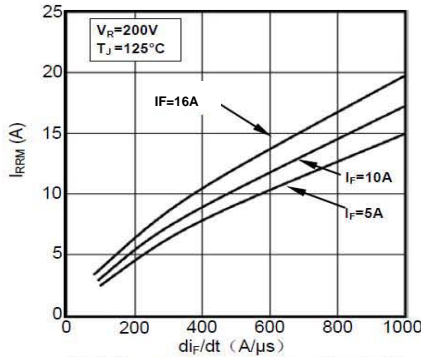


Fig3. Reverse Recovery Current vs di_F/dt

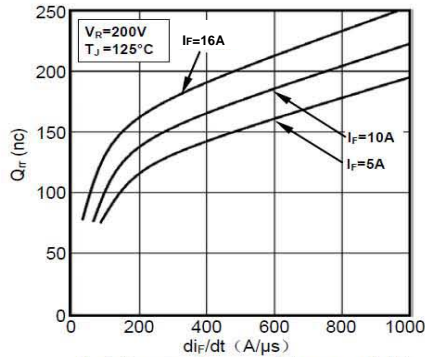


Fig4. Reverse Recovery Charge vs di_F/dt

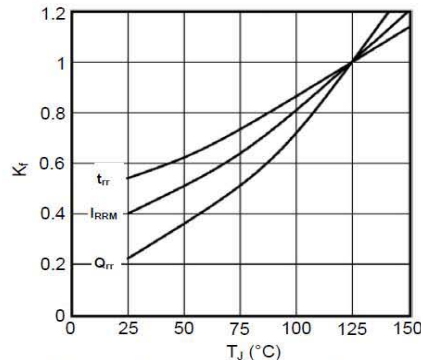


Fig5. Dynamic Parameters vs Junction Temperature

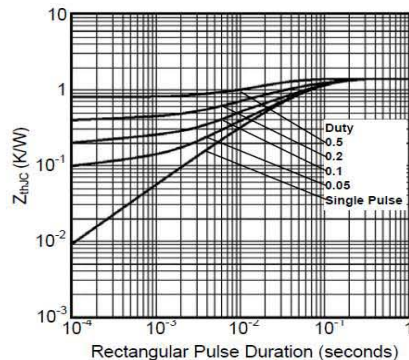


Fig6. Transient Thermal Impedance