

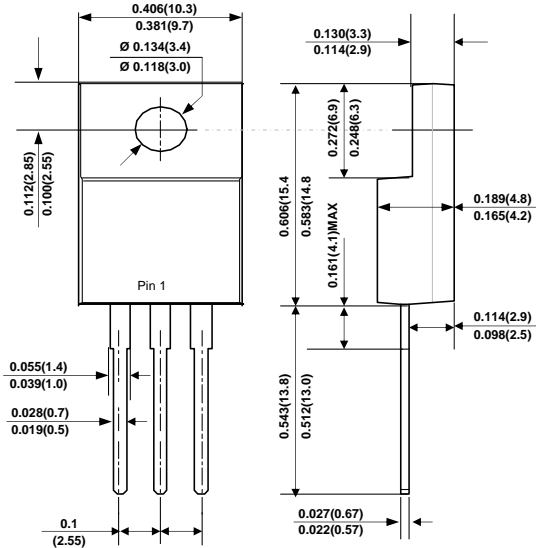


MUR1005FCT THRU MUR1060FCT

ISOLATION SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 10.0 Ampere

ITO-220AB



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0. Flame Retardant Epoxy Molding Compound.
- ◆ Exceeds environmental of MIL-S-19500/228
- ◆ Low power loss, high efficiency.
- ◆ Low forward voltage, high current capability.
- ◆ High surge capability.
- ◆ Super fast recovery times, high voltage.
- ◆ Epitaxial chip construction.
- ◆ In compliance with EU RoHS 2002/95/EC directives.

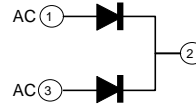
MECHANICAL DATA

Case: ITO-220AB, Molded plastic.

Terminals: Solderable per MIL-STD-750 · Method 2026

Weight: 1.859 gram (0.0655 ounces).

Standard Packaging : Tube.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| PARAMETER | SYMBOLS | MUR1005FCT | MUR1010FCT | MUR1020FCT | MUR1040FCT | MUR1060FCT | UNITS | |
|--|-----------------|------------|------------|------------|------------|------------|-------|--------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | Volts | |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | Volts | |
| Maximum DC Breakdown Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | Volts | |
| Maximum Average Forward Current at $T_C = 100^\circ\text{C}$ | $I_{F(AV)}$ | 10.0 | | | | | | Amp |
| Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated load (JEDEC method) | I_{FSM} | 125 | | | | | | Amps |
| Maximum Forward Voltage at 5A | V_F | 0.95 | | 1.30 | | 1.70 | Volts | |
| Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage $T_J = 100^\circ\text{C}$ | I_R | 1.0 | | | | | | μA |
| | | 500 | | | | | | |
| Maximum Reverse Recovery Time (NOTE 2) | t_{rr} | 35 | | | 50 | | | pF |
| Typical Junction Capacitance (NOTE 1) | C_J | 62 | | | | | | $^\circ\text{C/W}$ |
| Typical Thermal Resistance | $R_{\theta JC}$ | 3.0 | | | | | | $^\circ\text{C}$ |
| Operating and Storage Temperature Range | T_{STG} | -55 ~ +150 | | | | | | $^\circ\text{C}$ |

- Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{rr} = 0.25\text{A}$.
 3. Both Bonding and Chip structure are available.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

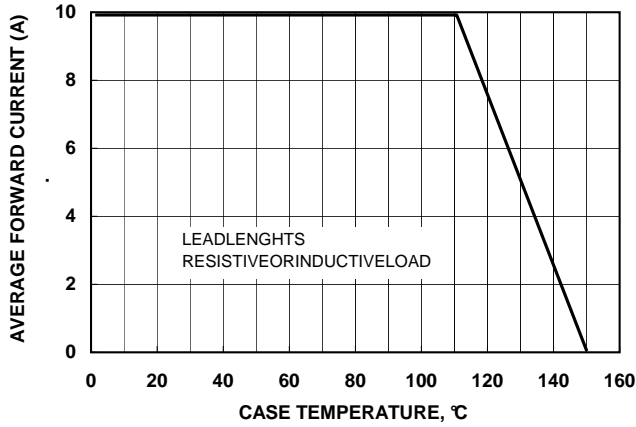


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

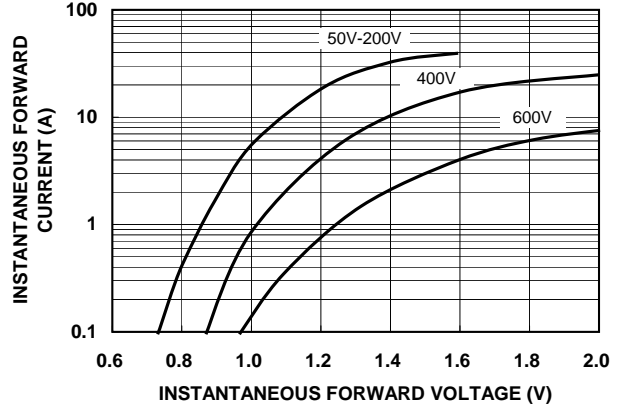


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

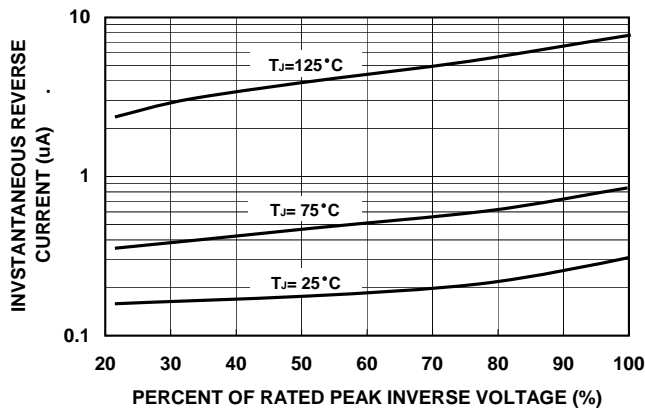


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

