

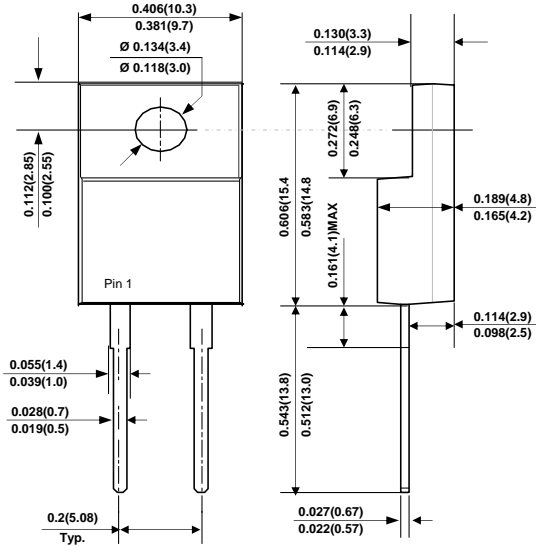


MUR1005F THRU MUR1060F

ISOLATION SUPER FAST RECOVERY RECTIFIER

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

ITO-220AC



Dimensions in inches and (millimeters)

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.

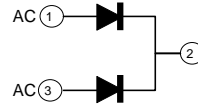
MECHANICAL DATA

Case: ITO-220AC, 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	MUR1005F	MUR1010F	MUR1020F	MUR1040F	MUR1060F	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	1.0 500					μA
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

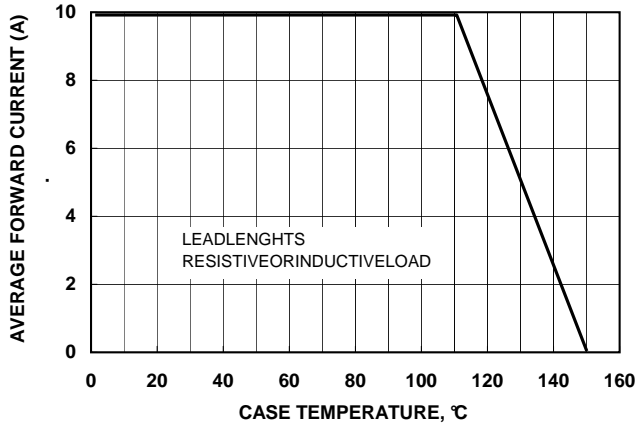


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

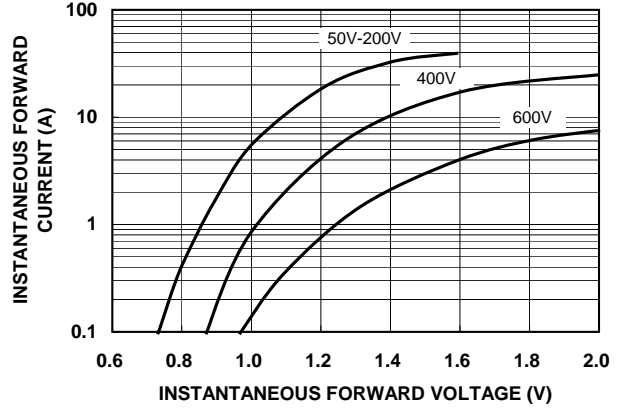


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

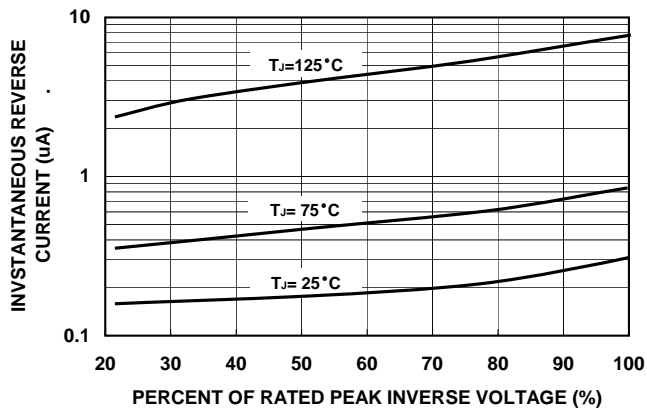


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

