

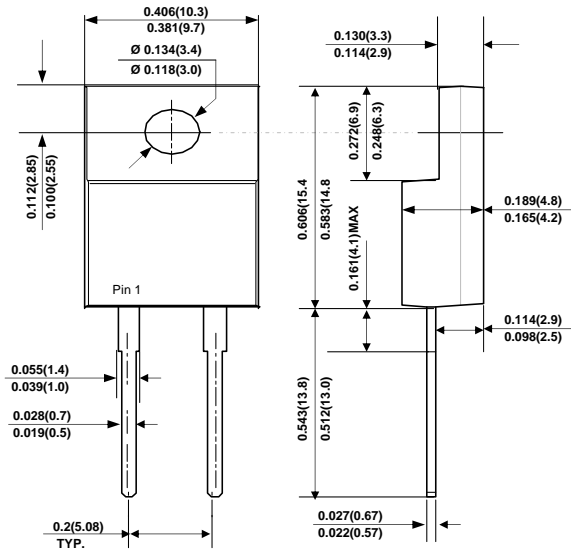


# MUR805F THRU MUR860F

## ISOLATION SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 8.0 Ampere

### ITO-220AC



### 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	MUR805F	MUR810F	MUR820F	MUR840F	MUR860F	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 $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	8.0					Amp
Peak Forward Surge Current, 8.3ms single half sinewave superimposed on rated load (JEDEC method)	$I_{FSM}$	125					Amps
Maximum Forward Voltage at 8A	$V_F$	0.975			1.30	1.70	Volts
Maximum DC Reverse Current at $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage $T_J = 100^\circ\text{C}$	$I_R$	10.0 500					$\mu\text{A}$
Maximum Reverse Recovery Time (NOTE 2)	$t_{rr}$	35			50		nS
Typical Junction Capacitance (NOTE 1)	$C_J$	65					pF
Typical Thermal Resistance	$R_{\theta JC}$	2.2					$^\circ\text{C/W}$
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

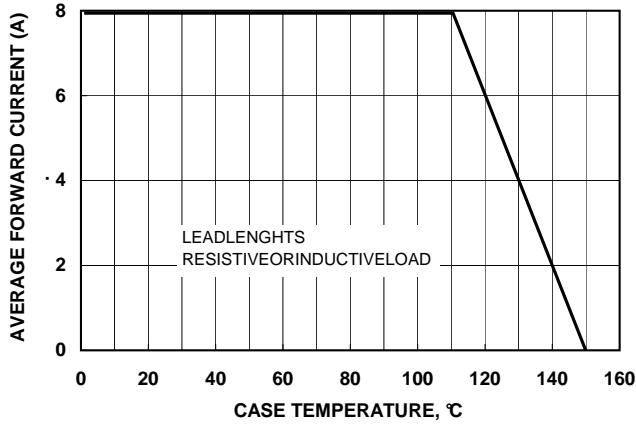


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

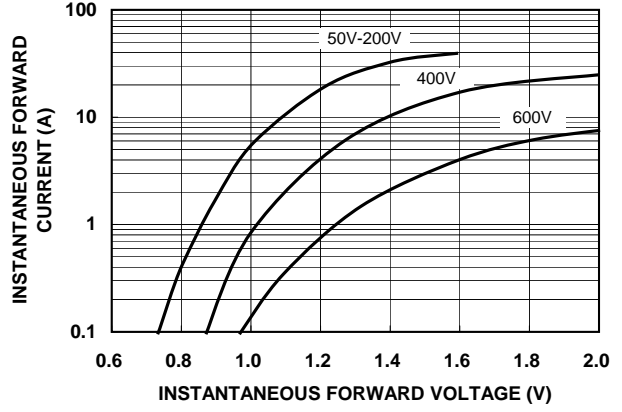


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

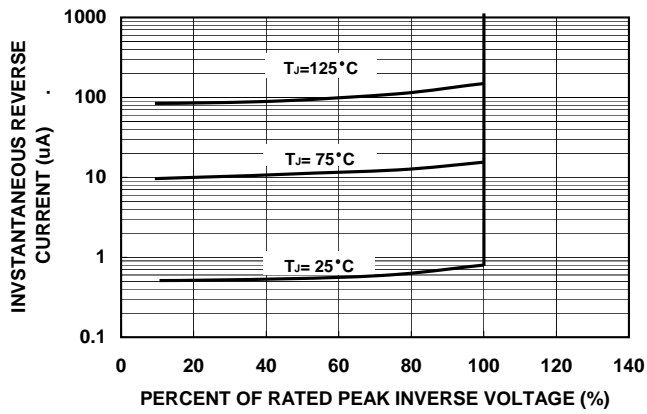


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

