

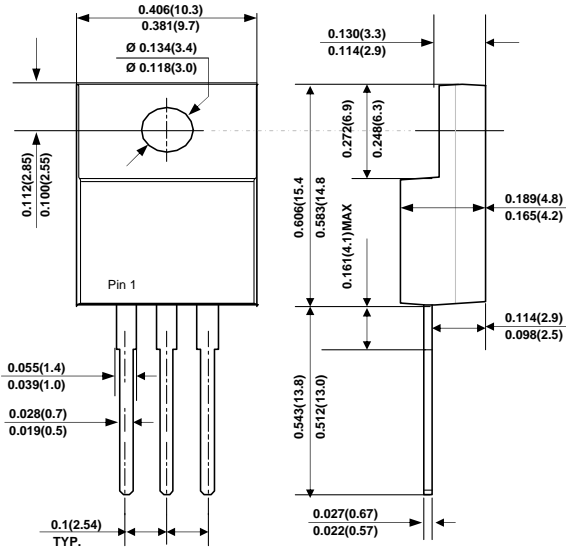


# MUR2005FCT THRU MUR2060FCT

## ISOLATION SUPER FAST RECOVERY RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 20.0 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.

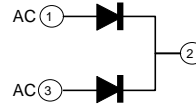
### MECHANICAL DATA

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	MUR 2005FCT	MUR 2010FCT	MUR 2015FCT	MUR 2020FCT	MUR 2040FCT	MUR 2060FCT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	280	420	Volts
Maximum DC Breakdown Voltage	$V_{DC}$	50	100	150	200	400	600	Volts
Maximum Average Forward Current at $T_C = 100^\circ\text{C}$	$I_{F(AV)}$	20.0						Amp
Peak Forward Surge Current (Per Leg) 8.3ms single half sinewave superimposed on rated load (JEDEC method)	$I_{FSM}$	125.0						Amps
Maximum Forward Voltage at 10A at $I_F = 10.0\text{A}$ Pre diode	$V_F$	0.975				1.30	1.70	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	$I_R$	10.0 500						$\mu\text{A}$
Maximum Reverse Recovery Time (NOTE 2)	$t_{rr}$	35				50		nS
Typical Junction Capacitance (NOTE 1)	$C_J$	120						pF
Typical Thermal Resistance	$R_{\theta JC}$	3.0						$^\circ\text{C/W}$
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

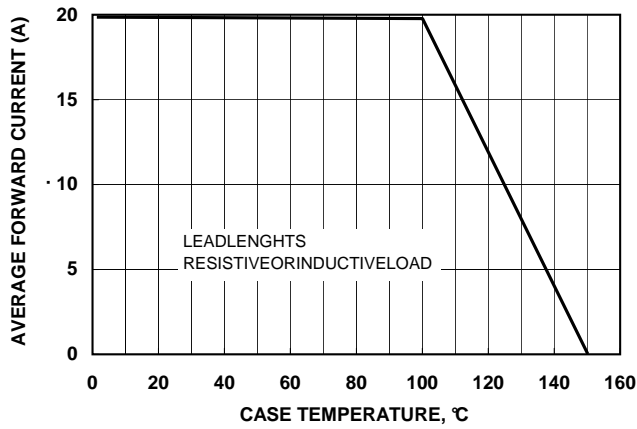


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

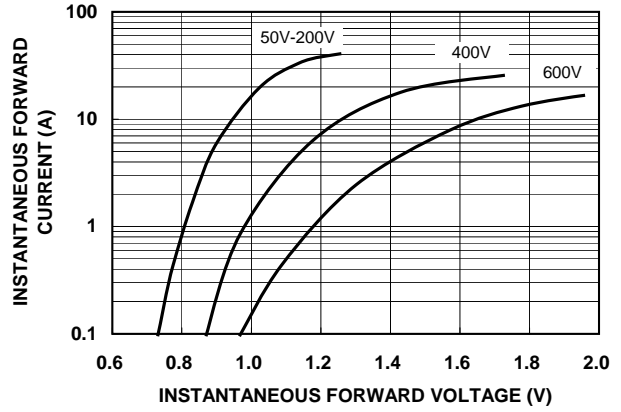


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

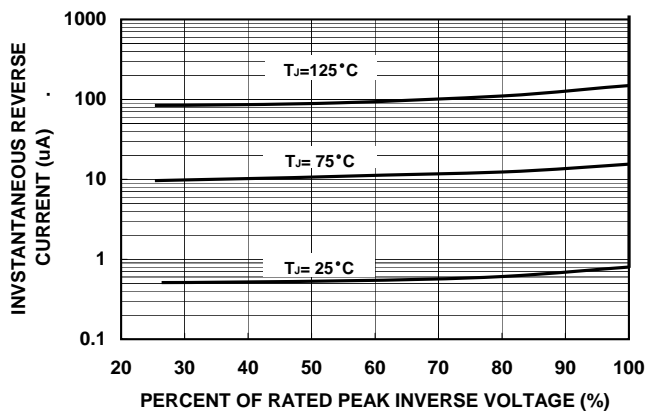


FIG. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

