

Pb Free Plating Product

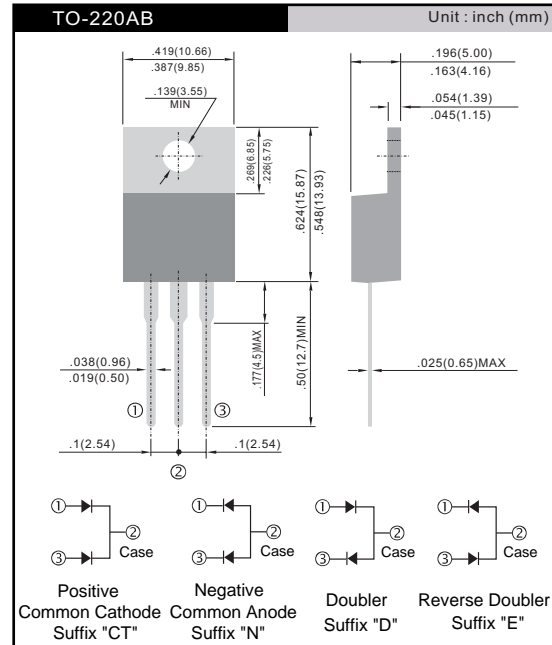
# MUR1005 thru MUR1060



10.0 Ampere Heatsink Glass Passivated Ultra Fast Recovery Rectifier

- Features**
- ★ Fast switching for high efficiency
  - ★ Low forward voltage drop
  - ★ High current capability
  - ★ Low reverse leakage current
  - ★ High surge current capability

- Mechanical Data**
- ★ Case: TO-220AB Heatsink Package
  - ★ Epoxy: UL 94V-0 rate flame retardant
  - ★ Terminals: Solderable per MIL-STD-202 method 208
  - ★ Polarity: As marked on diode body
  - ★ Mounting position: Any
  - ★ Weight: 2.24 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

COMMON CATHODE POLARITY COMMON ANODE POLARITY DOUBLER POLARITY REVERSE POLARITY	SUFFIX "CT" SUFFIX "N" SUFFIX "D" SUFFIX "E"	SYMBOL	MUR1005CT MUR1005N MUR1005D MUR1005E	MUR1010CT MUR1010N MUR1010D MUR1010E	MUR1020CT MUR1020N MUR1020D MUR1020E	MUR1030CT MUR1030N MUR1030D MUR1030E	MUR1040CT MUR1040N MUR1040D MUR1040E	MUR1060CT MUR1060N MUR1060D MUR1060E	UNIT
Maximum Recurrent Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	300	400	600	V
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	210	280	420	V
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current T <sub>c</sub> =100°C		I <sub>F(AV)</sub>	10.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	100						A
Maximum Instantaneous Forward Voltage @ 5.0 A		V <sub>F</sub>	0.98		1.3		1.7		V
Maximum DC Reverse Current @ T <sub>J</sub> =25°C At Rated DC Blocking Voltage @ T <sub>J</sub> =125°C		I <sub>R</sub>	10.0			250			uA uA
Maximum Reverse Recovery Time (Note 1)		T <sub>rr</sub>	35						nS
Typical junction Capacitance (Note 2)		C <sub>J</sub>	65						pF
Typical Thermal Resistance (Note 3)		R <sub>θJC</sub>	2.2						°CW
Operating Junction and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-55 to +150						°C

NOTES : (1) Reverse recovery test conditions I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A.  
 (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.  
 (3) Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

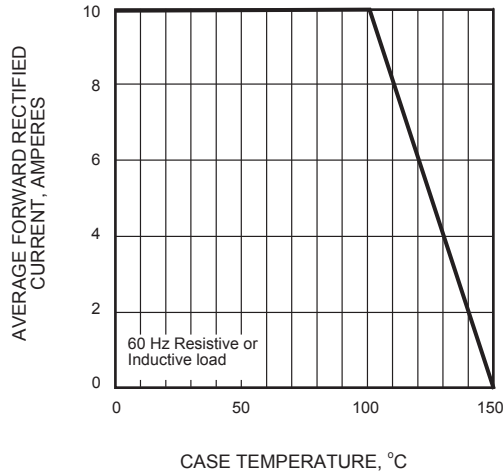


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

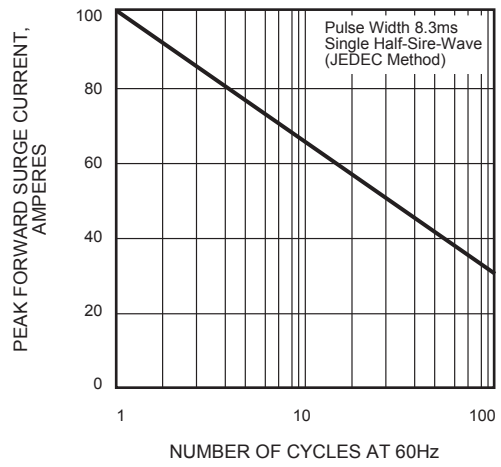


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

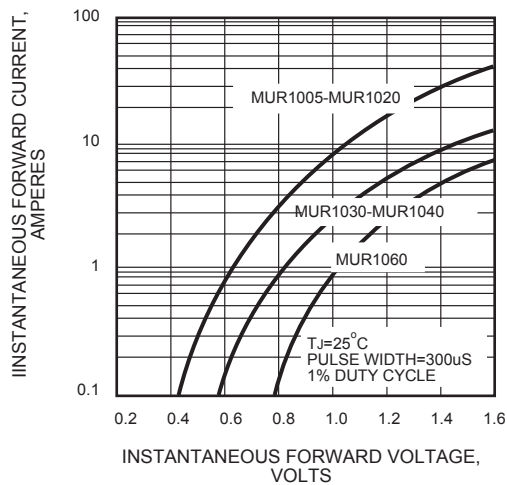


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

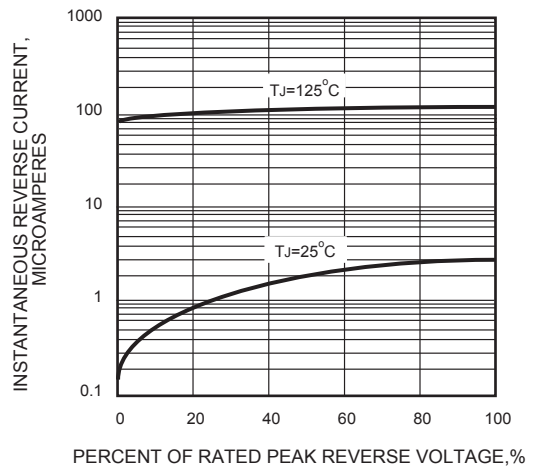


FIG.5 - TYPICAL JUNCTION CAPACITANCE

