

# MUR820CT - MUR860CT Ultra-Fast Recovery Rectifiers

**PRV : 200-600 Volts**

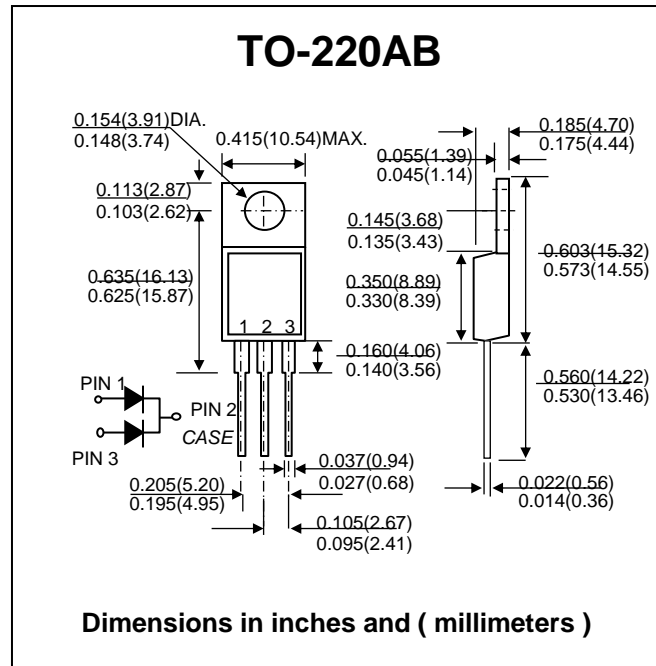
**Io : 8 Ampere**

## FEATURES :

- \* High frequency operation
- \* High surge forward current capability
- \* High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- \* Guard ring for enhanced ruggedness and long term reliability
- \* Solder dip 275 °C max. 7 s, per JESD 22-B106
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case :TO-220AB
- Molding compound meets UL 94 V-0 flammability rating
- \* Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- \* Polarity: As marked
- \* Weight : 2.0 grams (Approximately)



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

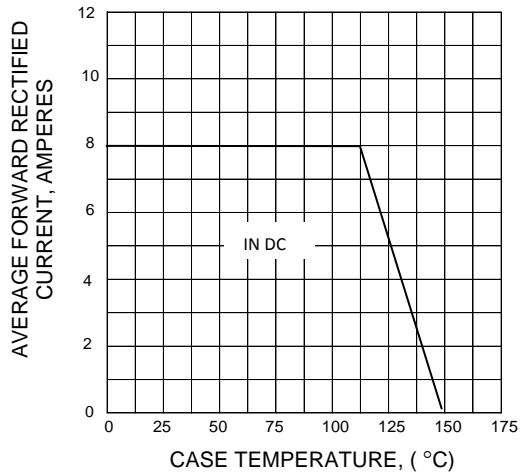
RATING	SYMBOL	MUR820CT	MUR840CT	MUR860CT	UNIT
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	200	400	600	V
Maximum Average Forward Current @60Hz Sine wave, R-load, T <sub>c</sub> (Fig1.)	I <sub>F(AV)</sub>	8			A
Surge(Non-repetitive)Forward Current @60Hz Sine wave, 1 Cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	100			A
Current Squared Time @ 1ms≤t≤8.3ms T <sub>j</sub> =25°C	I <sup>2</sup> t	41			A <sup>2</sup> s
Maximum Instantaneous Forward Voltage per diode at I <sub>F</sub> = 4.0 A	V <sub>F</sub>	0.975	1.3	1.5	V
Maximum Reverse Current at Rated DC T <sub>a</sub> = 25 °C	I <sub>R</sub>	10			μA
Blocking Voltage per diode T <sub>a</sub> = 125 °C	I <sub>R(H)</sub>	500			μA
Reverse Recovery Time (Note1)	T <sub>rr</sub>	50			ns
Typical Thermal Resistance from Junction to Case	R <sub>θJC</sub>	2.0			°C/W
Junction Temperature Range	T <sub>J</sub>	- 55 to + 150			°C
Storage Temperature Range	T <sub>STG</sub>	- 55 to + 150			°C

### Note :

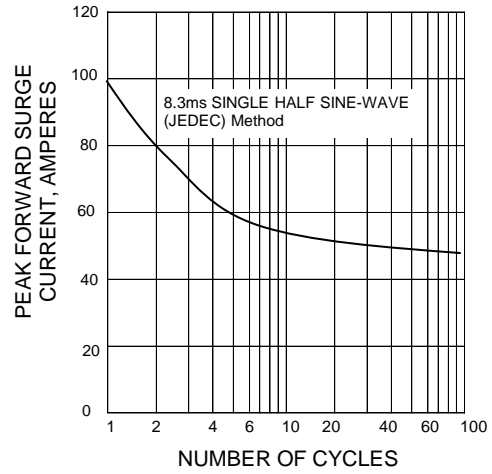
(1) Reverse Recovery Test Conditions : I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1A ; I<sub>rr</sub> = 0.25 A

**RATING AND CHARACTERISTIC CURVES ( MUR820CT - MUR860CT )**

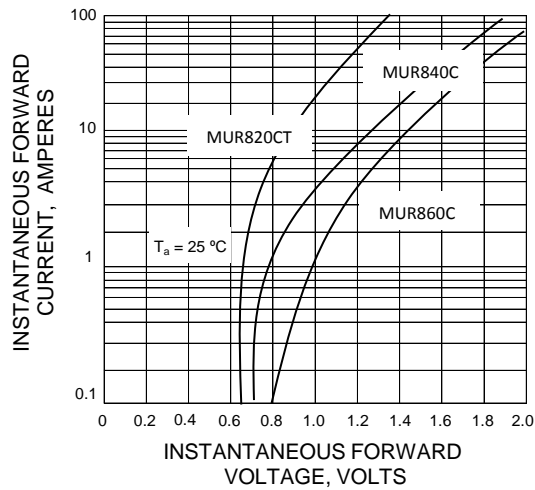
**FIG.1 - FORWARD CURRENT DERATING CURRENT**



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



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

