

# MUR1620CTR

**PRV : 200 Volts**  
**Io : 8.0 Ampere**

## FEATURES :

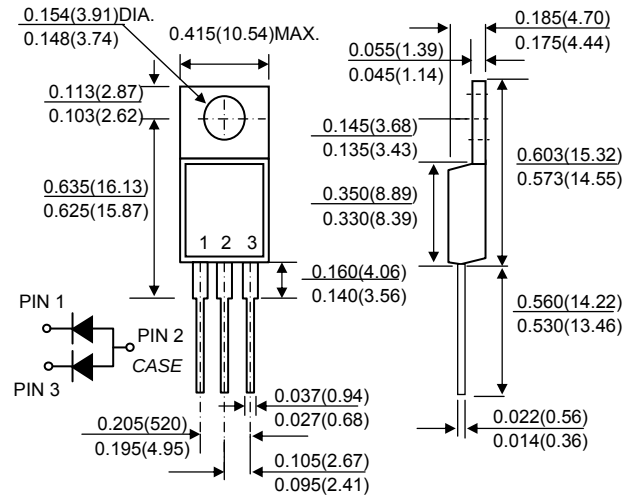
- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Pb / RoHS Free

## MECHANICAL DATA :

- \* Case : Epoxy, Molded
- \* Lead Temperature for Soldering Purposes:  
260°C Max. for 10 Seconds
- \* Weight : 2.1 grams (Approximately)

# ULTRAFAST RECTIFIER

## TO-220AB



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

| RATING                                                                                       | SYMBOL | VALUE                               | UNIT |
|----------------------------------------------------------------------------------------------|--------|-------------------------------------|------|
| Maximum Repetitive Peak Reverse Voltage                                                      | VRRM   | 200                                 | V    |
| Maximum Working Reverse Voltage                                                              | VRWM   | 200                                 | V    |
| Maximum DC Blocking Voltage                                                                  | VDC    | 200                                 | V    |
| Maximum Average Forward Current<br>Total Device,(Rated VR), Tc = 150°C                       | IF(AV) | 8.0 (Per Leg )<br>16 (Total Device) | A    |
| Maximum Peak Rectified Forward Current<br>(Rated VR, Square Wave, 20 kHz) Tc = 150°C         | IFRM   | 16                                  | A    |
| Maximum Non-repetitive Peak Forward Surge Current<br>(Halfwave, single phase, 60 Hz) Per Leg | IFSM   | 100                                 | A    |
| Maximum Forward Voltage at IF = 8 A, Tc = 25°C                                               | VF     | 1.2 <sup>(1)</sup>                  | V    |
| Maximum Instantaneous Reverse Current <sup>(1)</sup><br>( Rated dc Voltage)                  | IR     | 5 (Tc = 25°C)                       | μA   |
|                                                                                              | IR(H)  | 500 (Tc = 150°C)                    | μA   |
| Maximum Reverse Recovery Time<br>(IF = 0.5A, IR = 1A ; Irr = 0.25 A)                         | Trr    | 35                                  | ns   |
| Maximum Thermal Resistance, Junction to Case                                                 | RθJC   | 2.0                                 | °C/W |
| Junction Temperature Range                                                                   | TJ     | - 65 to + 175                       | °C   |
| Storage Temperature Range                                                                    | TSTG   | - 65 to + 175                       | °C   |

### Note :

(1) Pulse Test : Pulse Width = 300 μs, Duty Cycle ≤ 2.0%

## RATING AND CHARACTERISTIC CURVES ( MUR1620CTR )

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

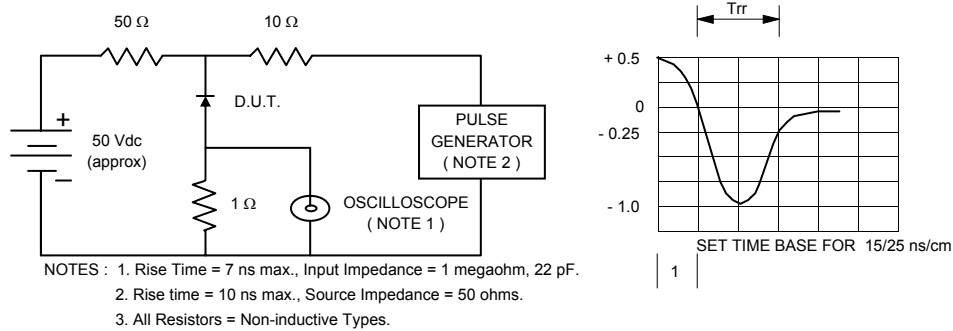


FIG. 2 - CURRENT DERATING CASE, PER LEG

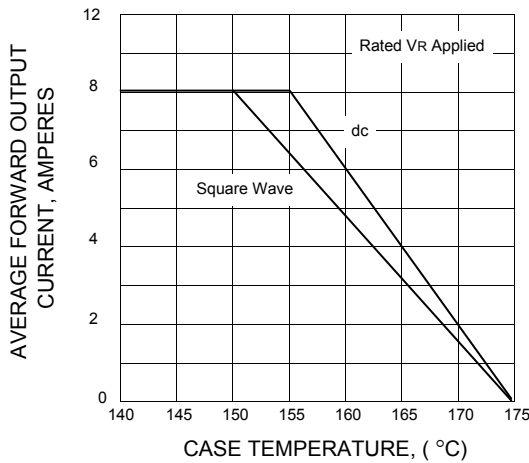


FIG. 3 - POWER DISSIPATION, PER LEG

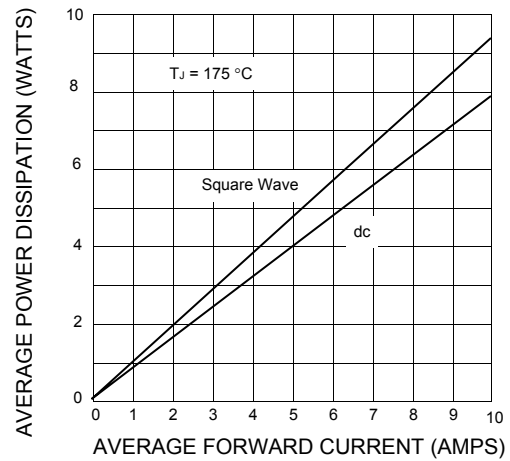


FIG. 4 - TYPICAL FORWARD VOLTAGE, PER LEG

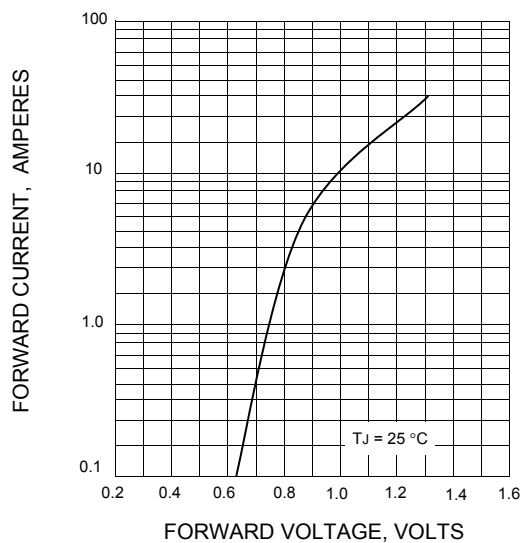


FIG. 5 - TYPICAL REVERSE CURRENT, PER LEG

