# 8A ULTRA FAST RECTIFIERS

## MUR805 TO MUR860

**TO-220AC**
**PLASTIC PACKAGE**

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**
**(Rating at 25ºC Ambient Temperature unless specified otherwise.**

| DESCRIPTION | | SYMBOL | MUR 805 | MUR 810 | MUR 820 | MUR 840 | MUR 860 | UNIT |
|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | V |
| Maximum RMS Voltage | | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | V |
| Maximum DC Blocking Voltage | | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | V |
| Maximum Average Forward Rectified Current at $T_A$ = 150°C | | $I_{(AV)}$ | 8.0 | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | | $I_{FSM}$ | 125 | | | | | A |
| Maximum Instantaneous Forward Voltage at IF=8.0A | | $V_F$ | 1 | | | 1.3 | 1.8 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | $T_A$=25°C | $I_R$ | 10.0 | | | | | mA |
| | $T_A$=150°C | | 500.0 | | | | | mA |
| Maximum Reverse Recovery Time (Note 1) | | $t_{rr}$ | 50 | | | | | ns |
| Operating Junction and Storage Temperature Range | | $T_j$, $T_{stg}$ | -50°C to +150°C | | | | | ºC |

**Note : 1. Reverse Recovery Condition IF = 0.5A, IR = 1.0A, Irr = 0.25A**

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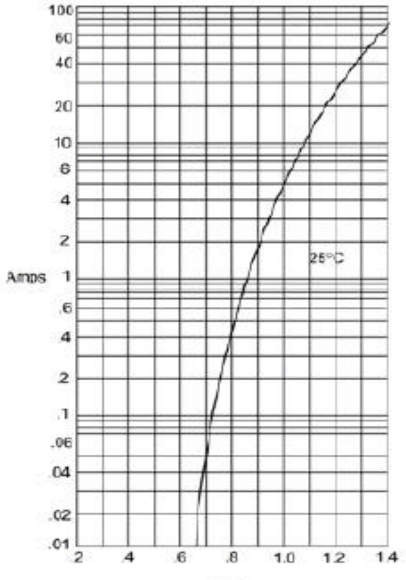
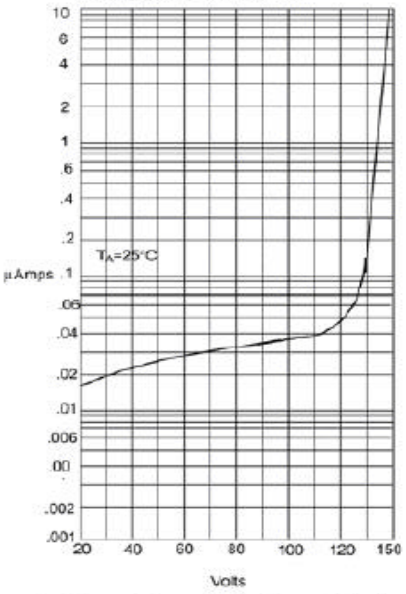
CHARACTERISTICS CURVES

Figure 1
Typical Forward Characteristics



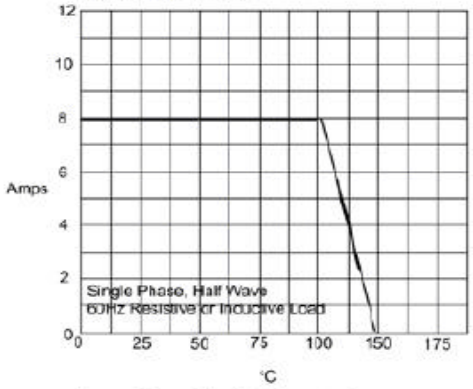

Instantaneous Forward Current - Amperesversus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



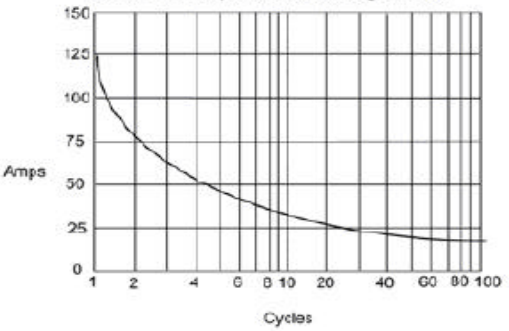

Instantaneous Reverse Leakage Current - MicroAmperesversus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve




Average Forward Rectified Current - Amperesversus
Case Temperature - °C

Figure 4
Maximum Non-Repetitve Forward Surge Current




Peak Forward Surge Current - Amperesversus
Number Of Cycles At 60Hz - Cycles

**MUR805_8606 Rev0 200112E**

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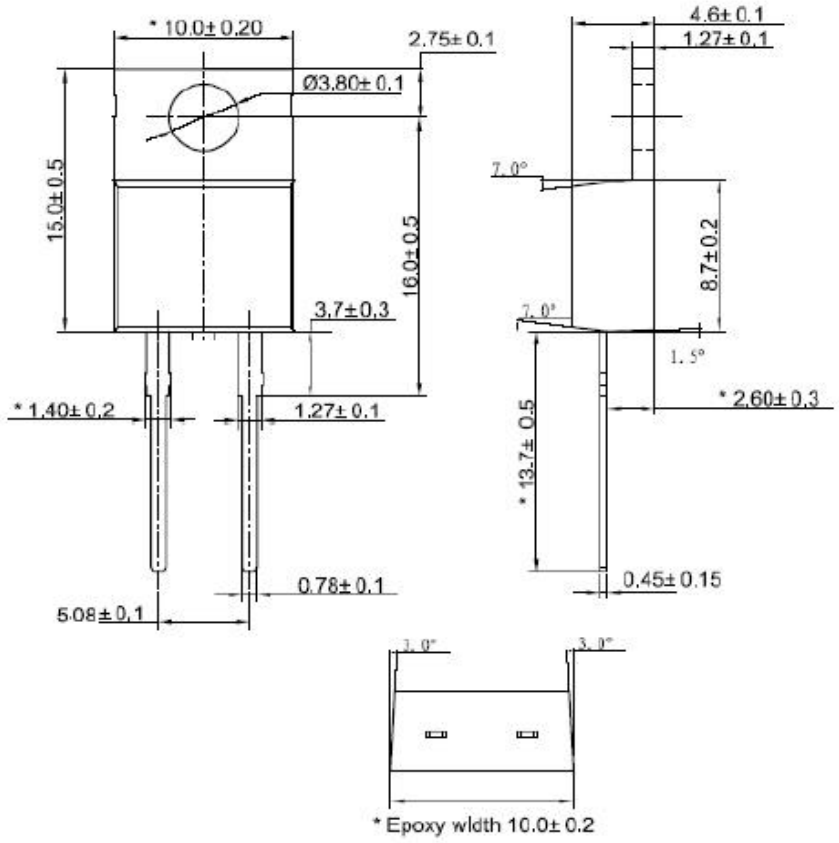
## TO-220AC PACKAGE DIMENSION

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**Customer Notes**

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## Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

## Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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