

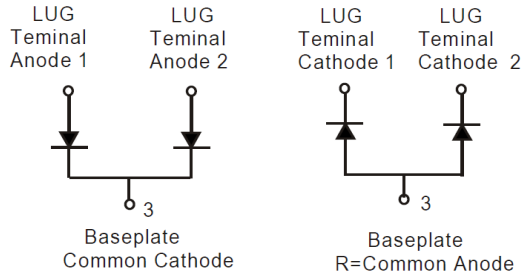
CURRENT 100 Ampere

VOLTAGE RANG 200 to 600 Volts

## MUR10040CT THRU MUR10060CTR

### Features

- Dual Diode Construction
- Low Leakage Current
- Low forward voltage drop
- High surge current capability
- Super Fast Switching



Twin Tower Package



| Maximum Ratings ( $T_J = 25^\circ\text{C}$ unless otherwise specified) |             |                              |               |               |       |
|--|-------------|------------------------------|---------------|---------------|-------|
| Parameter  | Symbol      | Conditions                   | MUR10040CT(R) | MUR10060CT(R) | Units |
| Repetitive peak reverse voltage  | $V_{RRM}$   |                              | 400           | 600           | V     |
| RMS reverse voltage  | $V_{RMS}$   |                              | 280           | 420           | V     |
| DC blocking voltage  | $V_{DC}$    |                              | 400           | 600           | V     |
| Average forward current  | $I_{F(AV)}$ | $T_C \leq 140^\circ\text{C}$ | 100           | 100           | A     |
| Non-repetitive forward surge current, half sine-wave                   | $I_{FSM}$   | $T_C = 25^\circ\text{C}$     | 400           | 400           | A     |

| Electrical Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise specified) |          |  |               |               |               |
|---|----------|--|---------------|---------------|---------------|
| Parameter   | Symbol   | Conditions   | MUR10040CT(R) | MUR10060CT(R) | Units         |
| DC forward voltage  | $V_F$    | $I_F = 50\text{ A}$<br>$T_J = 25^\circ\text{C}$                          | 1.3           | 1.3           | V             |
| DC reverse current  | $I_R$    | $V_R = 50\text{ V}$<br>$T_J = 25^\circ\text{C}$                          | 25            | 25            | $\mu\text{A}$ |
|   |          | $V_R = 50\text{ V}$<br>$T_J = 125^\circ\text{C}$                         | 1             | 1             | mA            |
| Maximum Reverse Recovery Time   | $t_{rr}$ | $I_F = 0.5\text{ A}$<br>$I_R = 1.0\text{ A}$<br>$I_{RR} = 0.25\text{ A}$ | 90            | 110           | nS            |

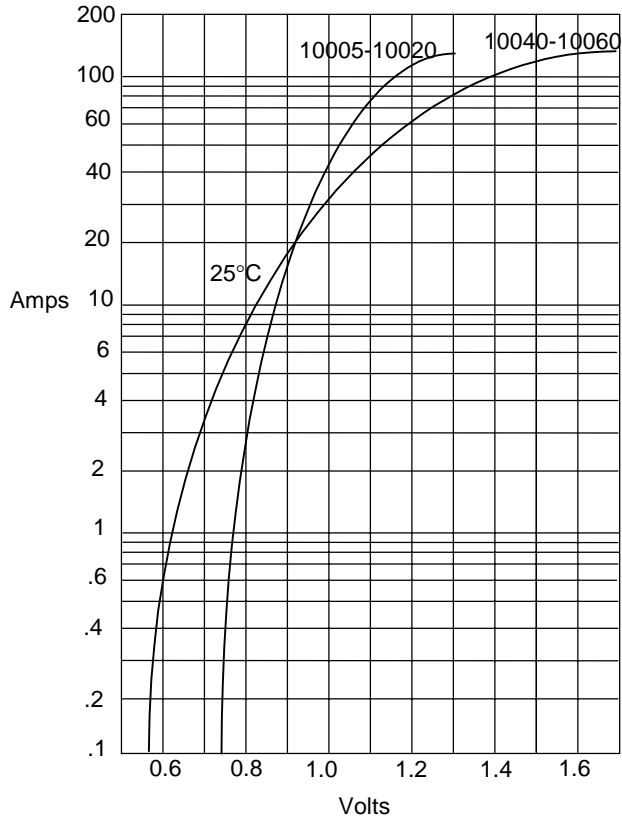
| Thermal Characteristics ( $T_J = 25^\circ\text{C}$ unless otherwise specified) |                |  |               |               |                    |
|--|----------------|--|---------------|---------------|--------------------|
| Parameter  | Symbol         |  | MUR10040CT(R) | MUR10060CT(R) | Units              |
| Thermal resistance junction to case  | $R_{thJ-C}$    |  | 1.0           | 1.0           | $^\circ\text{C/W}$ |
| Operating, storage temperature range   | $T_J, T_{stg}$ |  | - 40 to +175  | - 40 to +175  | $^\circ\text{C}$   |

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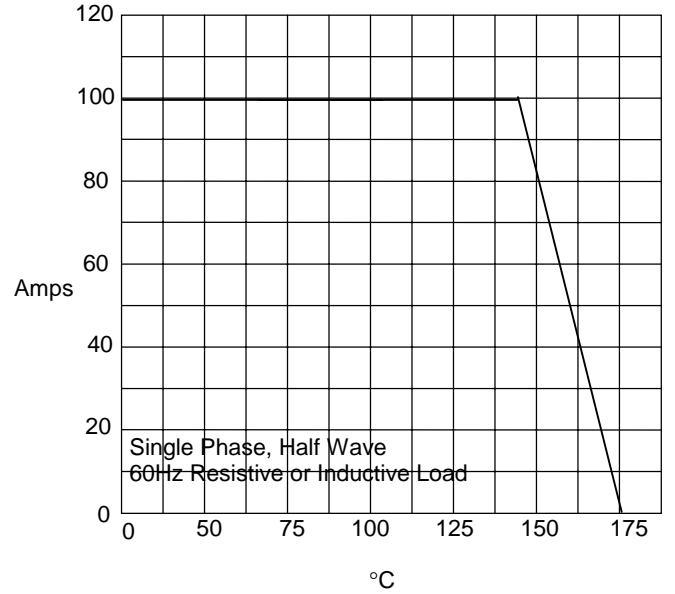
## MUR10040CT THRU MUR10060CTR

Figure 1  
Typical Forward Characteristics



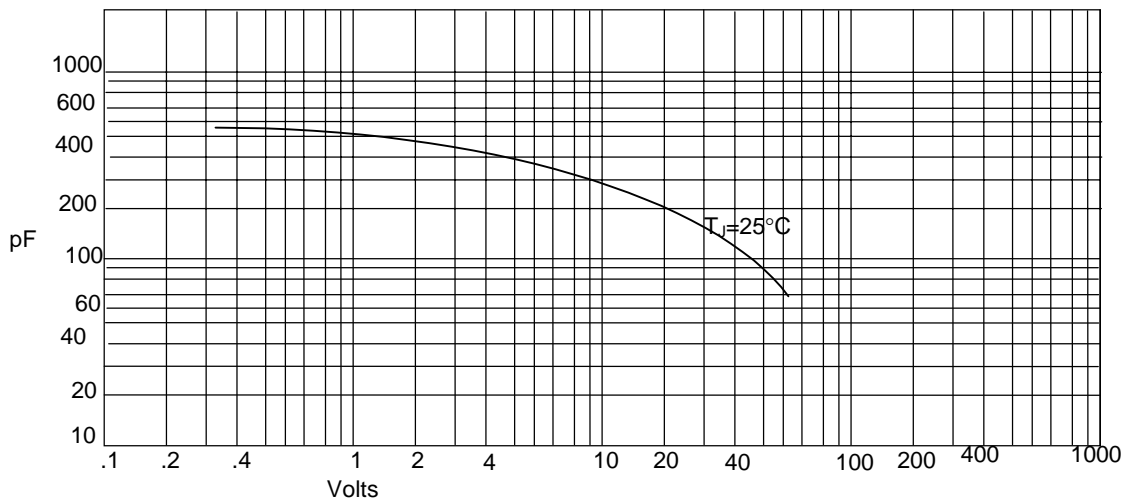
Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 3  
Junction Capacitance



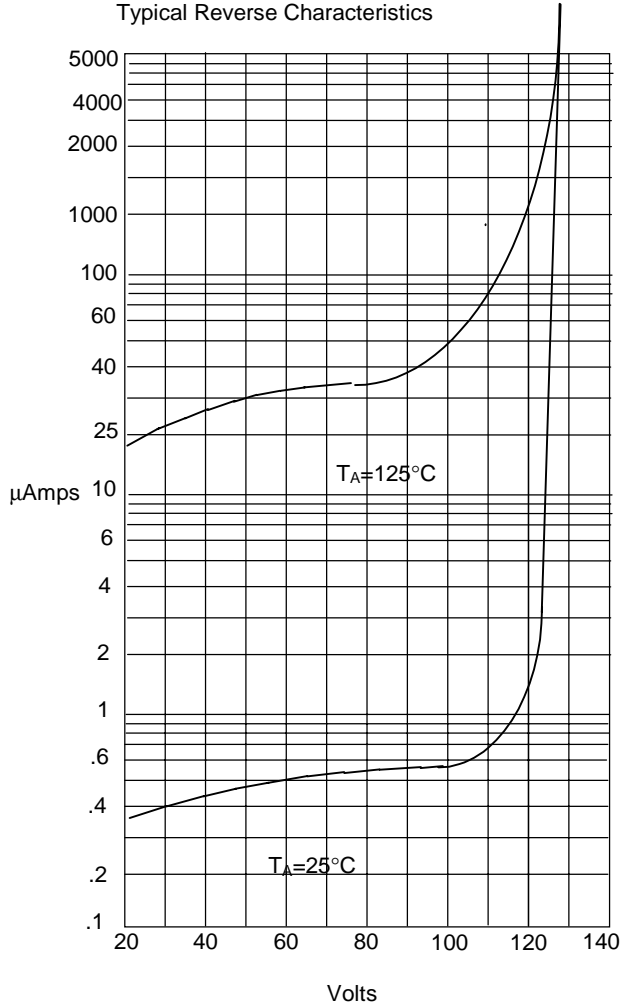
Junction Capacitance - pF versus Reverse Voltage - Volts

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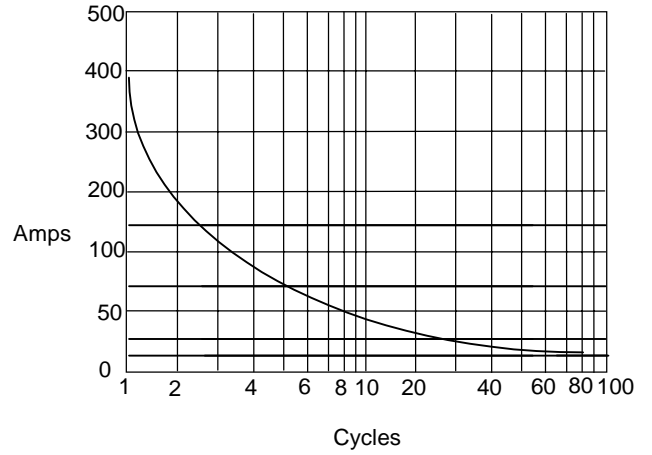
**MUR10040CT THRU MUR10060CTR**

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



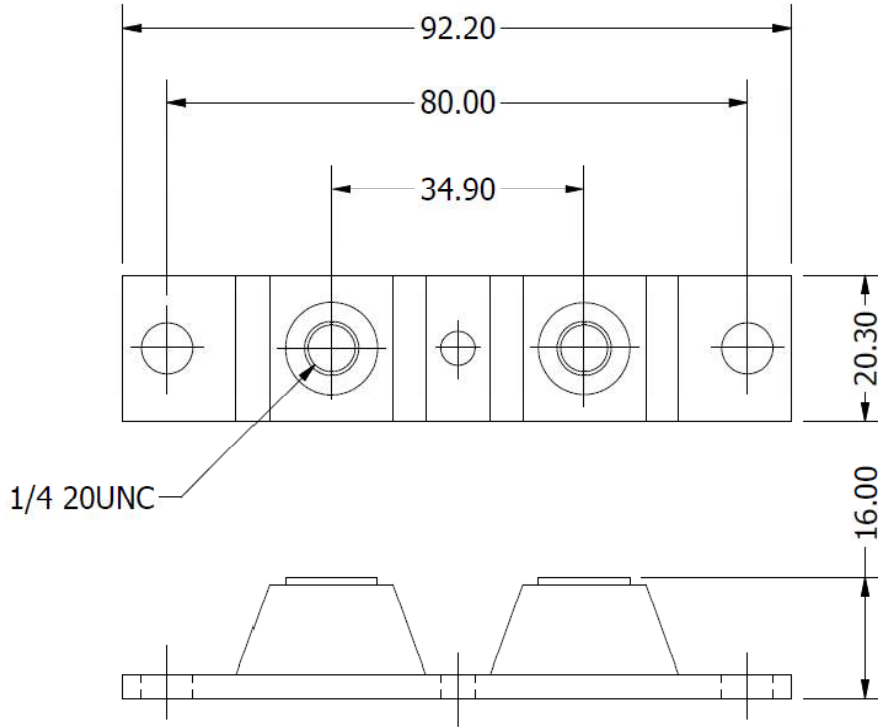
Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

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## MUR10040CT THRU MUR10060CTR

### Package Outline



ALL DIMENSIONS IN MM

### Ordering Table

| <i>MUR</i> | <i>200</i> | <i>40</i> | <i>CT</i> |
|------------|------------|-----------|-----------|
| 1          | 2          | 3         | 4         |

- 1 – Device Type
  - > MUR = Dual Diode Recovery Module
- 2 – Current Rating =  $I_{F(AV)}$
- 3 – Voltage = code x 10 =  $V_{RRM}$
- 4 – Polarity
  - > CT = Normal (Cathode to Base)
  - > CTR = Reverse (Anode to Base)