



Micro Commercial Components



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MUR405 THRU MUR4100

Features

- Halogen free available upon request by adding suffix "-HF"
- High Surge Capability
- Low Leakage and Low Forward Voltage Drop
- Ultra Fast Switching Speed For High Efficiency
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

4 Amp Ultra Fast **Recovery Rectifier** 50 to 1000 Volts

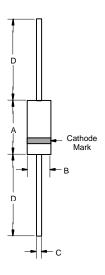
- Maximum Ratings
 Epoxy meets UL 94 V-0 flammability rating
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance 20°C/W
- Moisture Sensitivity Level 1

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------------|-------------------|---|---------------------------|--------------------------------------|
| MUR405 | MUR405 | 50V | 35V | 50V |
| MUR410 | MUR410 | 100V | 70V | 100V |
| MUR415 | MUR415 | 150V | 105V | 150V |
| MUR420 | MUR420 | 200V | 140V | 200V |
| MUR440 | MUR440 | 400V | 280V | 400V |
| MUR460 | MUR460 | 600V | 420V | 600V |
| MUR480 | MUR480 | 800V | 550V | 800V |
| MUR4100 | MUR4100 | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| Average Forward | I _{F(AV)} | 4.0A | $T_A = 55^{\circ}C$ |
|---------------------------------------|--------------------|----------------|------------------------------|
| Current | | | |
| Peak Forward Surge | I_{FSM} | 150A | 8.3ms, half sine |
| Current | | | |
| Maximum | | | |
| Instantaneous | | | |
| Forward Voltage | | | |
| MUR405-415 MUR420-460 | V_{F} | 1.00V 1.35V | $I_{FM} = 4.0A;$ |
| MUR480-4100 | | 1.85V 1.85V | $T_A = 25^{\circ}C$ |
| Maximum DC | | | |
| Reverse Current At | I_R | 10µA | $T_A = 25^{\circ}C$ |
| Rated DC Blocking | | ΕO···Λ | T _A = 100°C |
| Voltage | | 50µA | 1A= 100 C |
| Maximum Reverse | | | |
| Recovery Time | | | |
| MUR405-415 | Trr | 45ns 60ns | $I_{E}=0.5A, I_{R}=1.0A,$ |
| MUR420-460 MUR480-4100 | 111 | 75ns | I _{rr} =0.25A |
| | | | |
| Typical Junction | _ | 80pF | Measured at |
| Capacitance MUR405-460 MUR480-4100 | C_J | 50pF | 1.0MHz, V _R =4.0V |

DO-201AD



| DIMENSIONS | | | | | | |
|------------|--------|------|-------|------|------|--|
| | INCHES | | MM | | | |
| DIM | MIN | MAX | MIN | MAX | NOTE | |
| Α | .287 | .374 | 7.30 | 9.50 | | |
| В | .189 | .208 | 4.80 | 5.30 | | |
| С | .048 | .052 | 1.20 | 1.30 | | |
| D | 1.000 | | 25.40 | | | |

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

MUR405 thru MUR4100

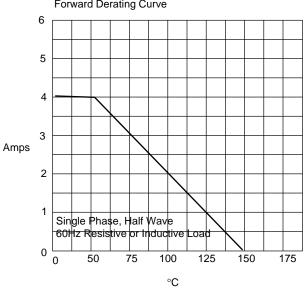
Figure 1
Typical Forward Characteristics



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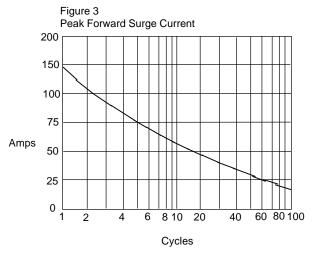
100 60 40 20 10 6 2 25°C Amps .6 .4 .2 .1 .06 .04 .02 .01 .4 .6 8. 1.0 1.2 1.4 Volts

Figure 2 Forward Derating Curve



Average Forward Rectified Current - Amperes/ersus Ambient Temperature -°C

Instantaneous Forward Current - Amperes*versus* Instantaneous Forward Voltage - Volts



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



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Ordering Information:

| Device | Packing |
|----------------|--------------------------------|
| Part Number-TP | Tape&Reel: 1.2Kpcs/Reel |
| Part Number-AP | Ammo Packing: 1.2Kpcs/Ammo Box |
| Part Number-BP | Bulk: 12Kpcs/Carton |

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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