



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Micro Commercial Components



Micro Commercial Components
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MUR105 THRU MUR1100

**1 Amp Super Fast
 Recovery Rectifier
 50 to 1000 Volts**

Features

- Halogen free available upon request by adding suffix "-HF"
- Super Fast Switching Speed For High Efficiency
- Marking:TypeNumber
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

Maximum Ratings

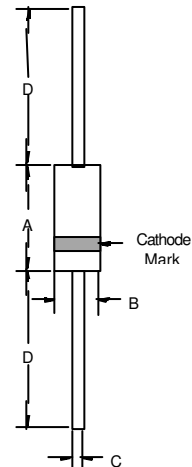
- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

| MCC Part Number | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|--|---------------------|-----------------------------|
| MUR105 | 50V | 35V | 50V |
| MUR110 | 100V | 70V | 100V |
| MUR115 | 150V | 105V | 150V |
| MUR120 | 200V | 140V | 200V |
| MUR140 | 400V | 280V | 400V |
| MUR160 | 600V | 420V | 600V |
| MUR180 | 800V | 560V | 800V |
| MUR1100 | 1000V | 700V | 1000V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | | | |
|---|-------------|---|--|---|---|
| Average Forward Current | $I_{F(AV)}$ | 1 A | $T_A = 55^\circ\text{C}$ | | |
| Peak Forward Surge Current | I_{FSM} | 35A | 8.3ms, half sine | | |
| Maximum Instantaneous Forward Voltage | V_F | MUR105-115 MUR120-160 MUR180-1100 | $I_{FM} = 1.0A;$ $T_A = 25^\circ\text{C}$ | | |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | | I_R | | 5 μ A 50 μ A | $T_A = 25^\circ\text{C}$ $T_A = 150^\circ\text{C}$ |
| Maximum Reverse Recovery Time | | T_{rr} | | MUR105-120 MUR140-160 MUR180-1100 | $I_F=0.5A, I_R=1.0A,$ $I_T=0.25A$ |
| Typical Junction Capacitance | C_J | | 20pF | Measured at 1.0MHz, $V_R=4.0V$ | |

DO-41



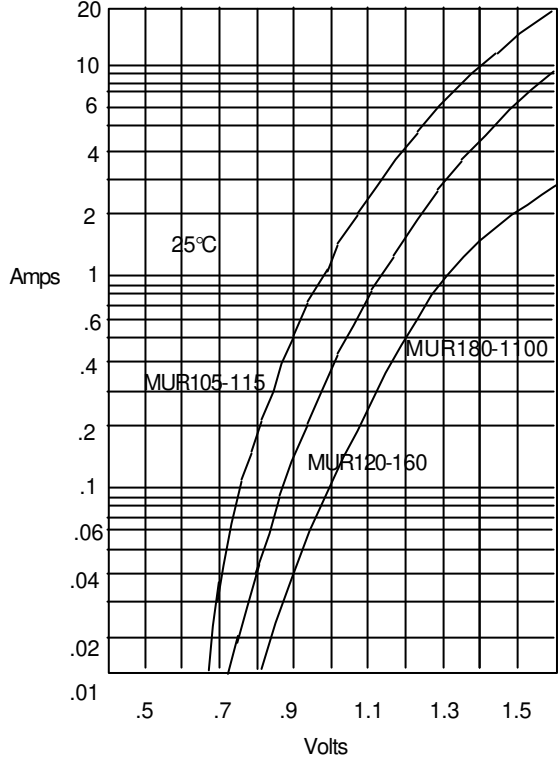
| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|-------|------|------|
| | INCHES | | MM | | |
| A | .166 | .205 | 4.10 | 5.20 | |
| B | .080 | .107 | 2.00 | 2.70 | |
| C | .028 | .034 | .70 | .90 | |
| D | 1.000 | --- | 25.40 | --- | |

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

MUR105 thru MUR1100

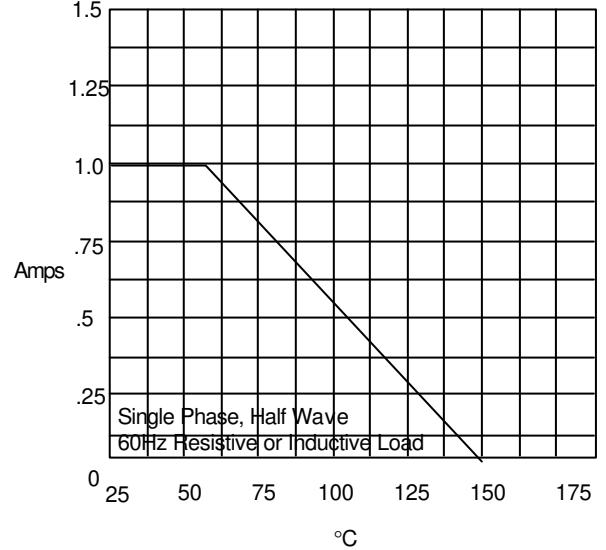


Figure 1
Typical Forward Characteristics



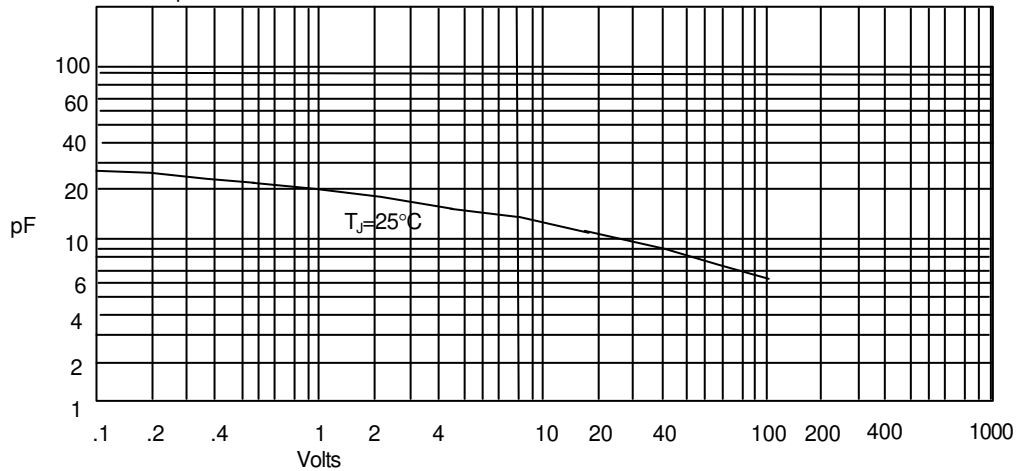
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

Figure 3
Junction Capacitance



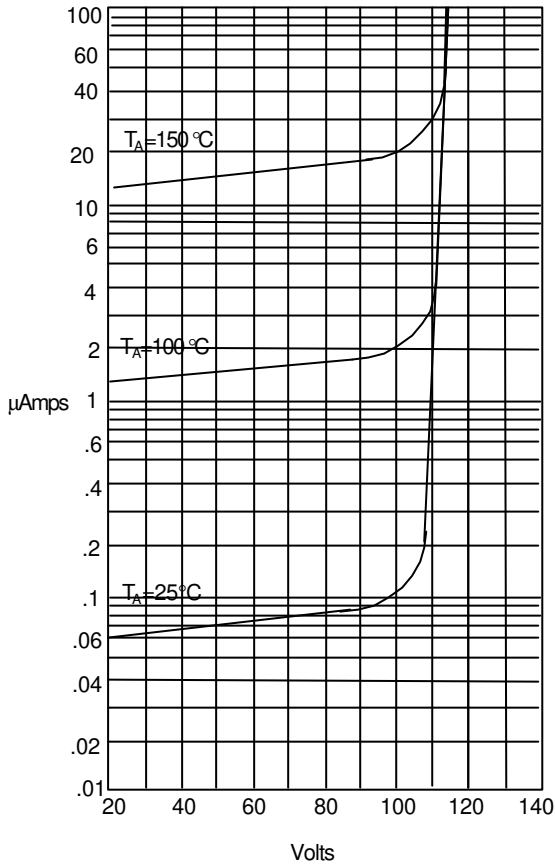
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

MUR105 thru MUR110



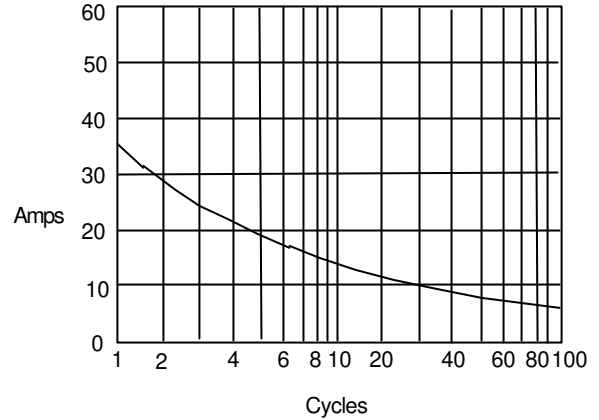
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Figure 4
Typical Reverse Characteristics



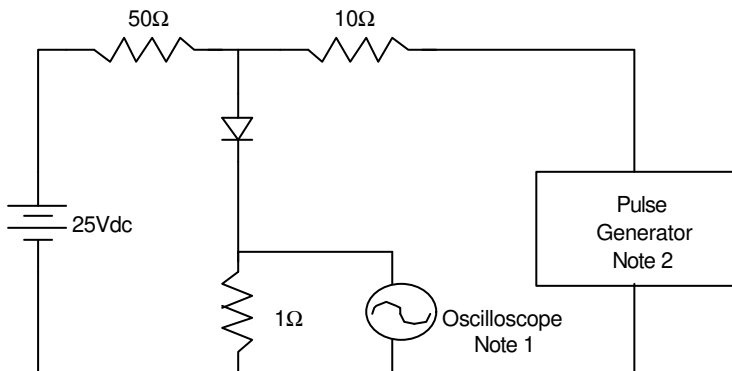
Instantaneous Reverse Leakage Current - MicroAmperes versus

Figure 5
Peak Forward Surge Current

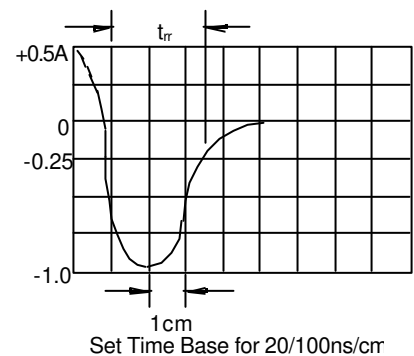


Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
 2. Rise Time = 10ns max.
Source impedance = 50 ohms
 3. Resistors are non-inductive





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Ordering Information :

| Device | Packing |
|----------------|------------------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel |
| Part Number-AP | Ammo Packing: 5Kpcs/Ammo Box |
| Part Number-BP | Bulk: 50Kpcs/Carton |

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

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