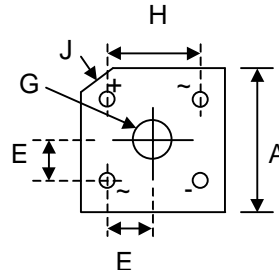
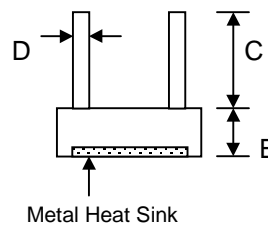


### Features

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has Underwriters Laboratory Flammability Classification 94V-O



| MP-10                |                    |       |
|----------------------|--------------------|-------|
| Dim                  | Min                | Max   |
| A                    | 14.73              | 15.75 |
| B                    | 5.80               | 6.90  |
| C                    | 19.00              | —     |
| D                    | 1.00 Ø Typical     |       |
| E                    | 5.11               | 6.14  |
| G                    | Hole for #6 screw  |       |
|                      | 3.60               | 4.00  |
| H                    | 10.30              | 11.30 |
| J                    | 2.38 x 45° Typical |       |
| All Dimensions in mm |                    |       |



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Marked on Body
- Weight: 5.4 grams (approx.)
- Mounting Position: Through Hole for #6 Screw
- Mounting Torque: 5.0 Inch-pounds Maximum
- Marking: Type Number

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

| Characteristic  | Symbol                          | MP 1000     | MP 1001 | MP 1002 | MP 1004 | MP 1006 | MP 1008 | MP 1010 | Unit                 |
|---|---------------------------------|-------------|---------|---------|---------|---------|---------|---------|----------------------|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage                                | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50          | 100     | 200     | 400     | 600     | 800     | 1000    | V                    |
| RMS Reverse Voltage   | $V_{R(RMS)}$                    | 35          | 70      | 140     | 280     | 420     | 560     | 700     | V                    |
| Average Rectified Output Current (Note 1) @ $T_A = 50^\circ\text{C}$  | $I_O$                           | 10          |         |         |         |         |         |         | A                    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | $I_{FSM}$                       | 200         |         |         |         |         |         |         | A                    |
| Forward Voltage (per element) @ $I_F = 5.0\text{A}$   | $V_{FM}$                        | 1.1         |         |         |         |         |         |         | V                    |
| Peak Reverse Current @ $T_C = 25^\circ\text{C}$<br>At Rated DC Blocking Voltage @ $T_C = 100^\circ\text{C}$           | $I_R$                           | 10<br>1.0   |         |         |         |         |         |         | $\mu\text{A}$<br>mA  |
| $I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ ) (Note 2)  | $I^2t$                          | 64          |         |         |         |         |         |         | $\text{A}^2\text{s}$ |
| Typical Junction Capacitance (Note 3)   | $C_j$                           | 110         |         |         |         |         |         |         | pF                   |
| Typical Thermal Resistance (Note 4)   | $R_{\theta JC}$                 | 7.5         |         |         |         |         |         |         | K/W                  |
| Operating and Storage Temperature Range   | $T_j, T_{STG}$                  | -65 to +125 |         |         |         |         |         |         | $^\circ\text{C}$     |

- Note: 1. Mounted on heatsink.  
 2. Non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$ .  
 3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 4. Thermal resistance junction to case per element.

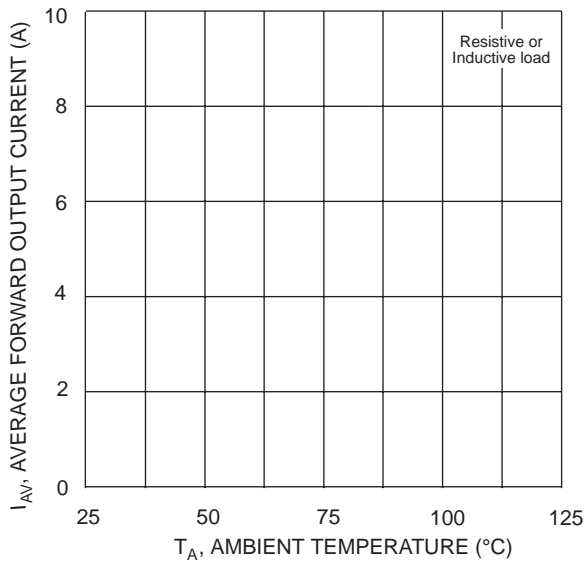


Fig. 1 Forward Current Derating Curve

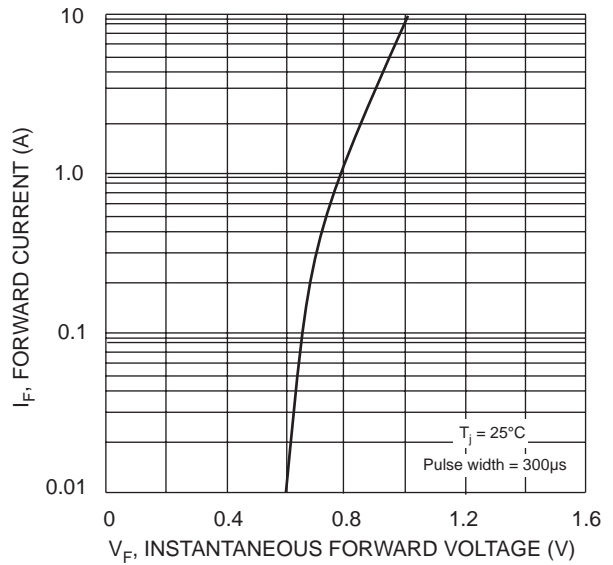


Fig. 2 Typical Forward Characteristics, per element

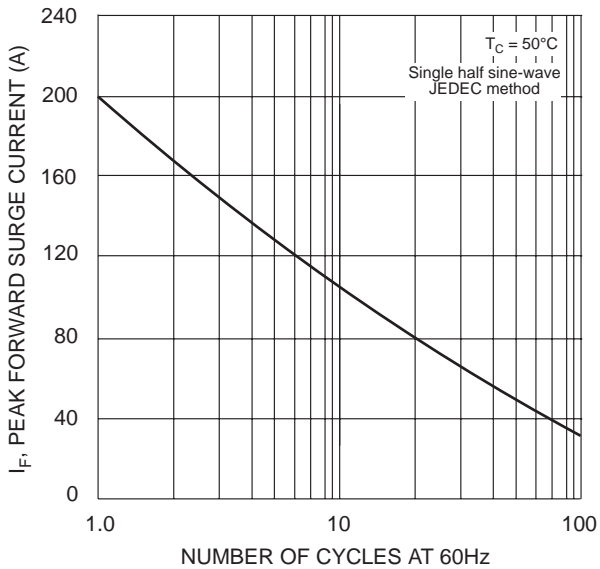


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

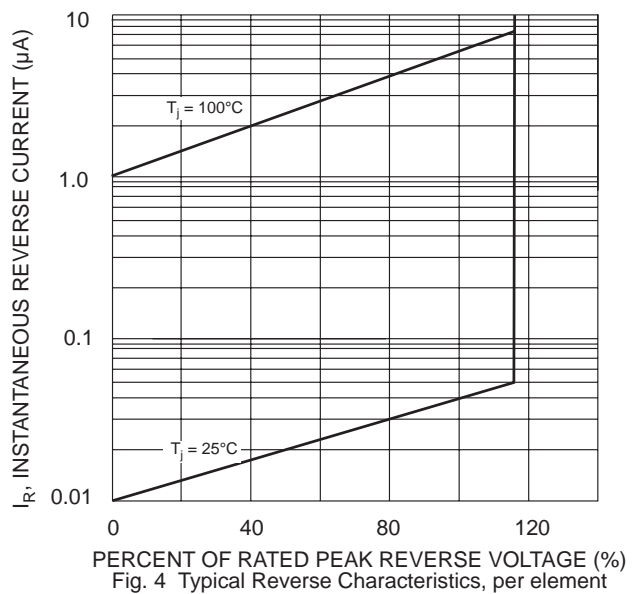


Fig. 4 Typical Reverse Characteristics, per element

## ORDERING INFORMATION

| Product No. | Package Type  | Shipping Quantity |
|-------------|---------------|-------------------|
| MP1000      | Square Bridge | 200 Units/Box     |
| MP1001      | Square Bridge | 200 Units/Box     |
| MP1002      | Square Bridge | 200 Units/Box     |
| MP1004      | Square Bridge | 200 Units/Box     |
| MP1006      | Square Bridge | 200 Units/Box     |
| MP1008      | Square Bridge | 200 Units/Box     |
| MP1010      | Square Bridge | 200 Units/Box     |

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

*We power your everyday.*