

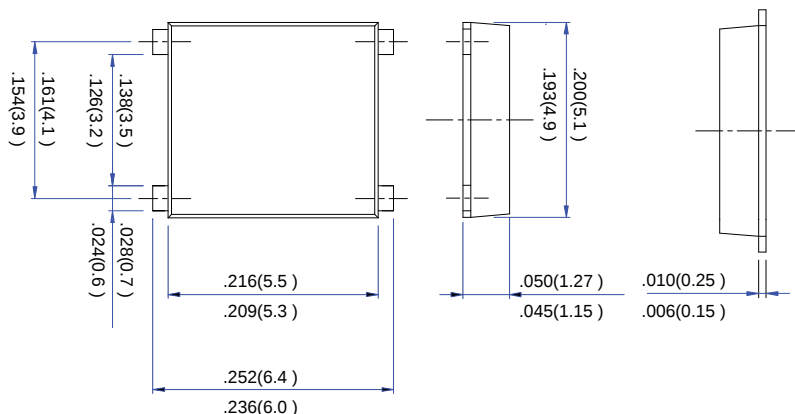
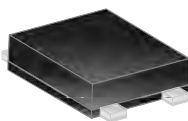


## 1.0 AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIERS MD-F PACKAGE

MD1F  
THRU  
MD7F

### FEATURES

- Rating to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead tin plated copper



### MECHANICAL DATA

- Terminal: Plated leads solderable per MIL-STD 202E, method 208C
- Epoxy: Device has UL flammability classification 94V-0
- Polarity: Polarity symbol marked on body

Dimensions in inches and(millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| PARAMETER                                                                                        | SYMBOL          | MD1F        | MD2F | MD3F | MD4F | MD5F | MD6F | MD7F | UNIT            |
|--------------------------------------------------------------------------------------------------|-----------------|-------------|------|------|------|------|------|------|-----------------|
| Marking Code                                                                                     |                 | MD1F        | MD2F | MD3F | MD4F | MD5F | MD6F | MD7F |                 |
| Maximum Recurrent Peak Reverse Voltage                                                           | $V_{RRM}$       | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V               |
| Maximum RMS Bridge Input Voltage                                                                 | $V_{RMS}$       | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V               |
| Maximum DC blocking voltage                                                                      | $V_{DC}$        | 50          | 100  | 200  | 400  | 600  | 800  | 1000 | V               |
| Maximum Average Forward Rectified Output Current at $T_A=40^{\circ}C$ (Note 1)                   | $I_F$           | 1.0         |      |      |      |      |      |      | A               |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load               | $I_{FSM}$       | 30.0        |      |      |      |      |      |      | A               |
| Current squared time $t < 8.3ms$ , $T_A = 25^{\circ}C$                                           | $I^2 t$         | 3.75        |      |      |      |      |      |      | $A^2 s$         |
| Maximum Forward Voltage Drop Per Bridge Element at 1A Peak                                       | $V_F$           | 1.1         |      |      |      |      |      |      | V               |
| Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_J=125^{\circ}C$ | $I_R$           | 5<br>500    |      |      |      |      |      |      | $\mu A$<br>mA   |
| Typical Junction Capacitance Per Element (Note1)                                                 | CJ              | 30.0        |      |      |      |      |      |      | pF              |
| Typical Thermal Resistance (Note2)                                                               | $R_{\theta JA}$ | 75.0        |      |      |      |      |      |      | $^{\circ}C / W$ |
|                                                                                                  | $R_{\theta JC}$ | 45.0        |      |      |      |      |      |      | $^{\circ}C / W$ |
| Operating Temperature Range                                                                      | $T_J$           | -55 to +150 |      |      |      |      |      |      | $^{\circ}C$     |
| Storage Temperature Range                                                                        | $T_{STG}$       | -55 to +150 |      |      |      |      |      |      | $^{\circ}C$     |

#### NOTES:

- 1.Measured at1.0MHz and applied reverse voltage of 4.0V DC.
- 2.Thermal resistance junction to ambient and junction to case



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FIG.1-FORWARD CURRENT DERATING CURVE

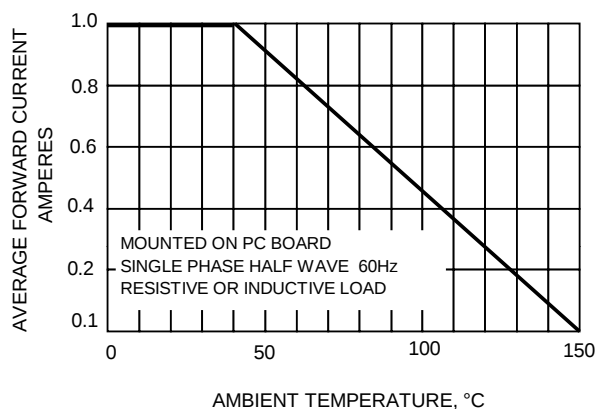


FIG.2-MXIMUM NON-REPETITIVE  
SURGE CURRENT

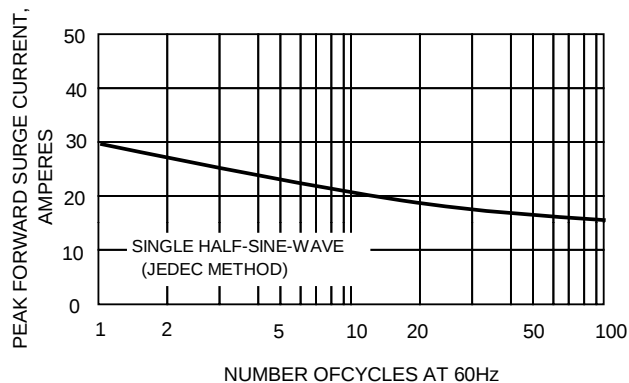


FIG.3-TYPICAL JUNCTION CAPACITANCE

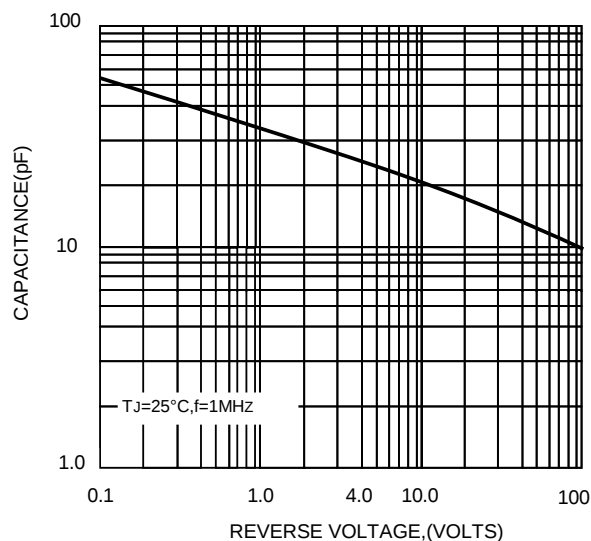


FIG.4-TYPICAL FORWARD CHARACTERISTICS

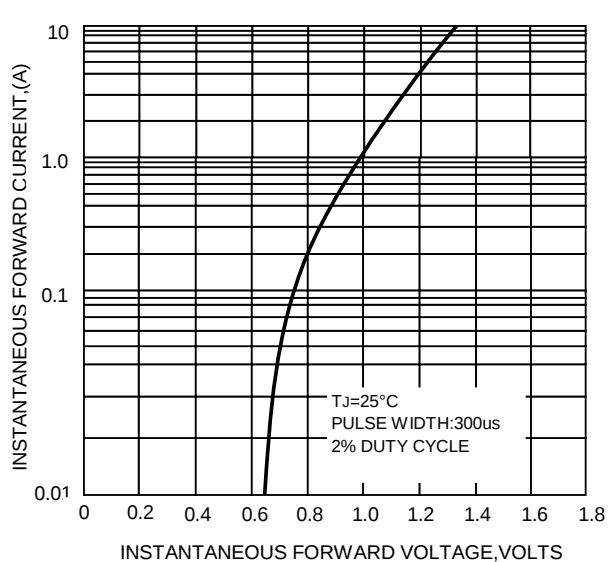
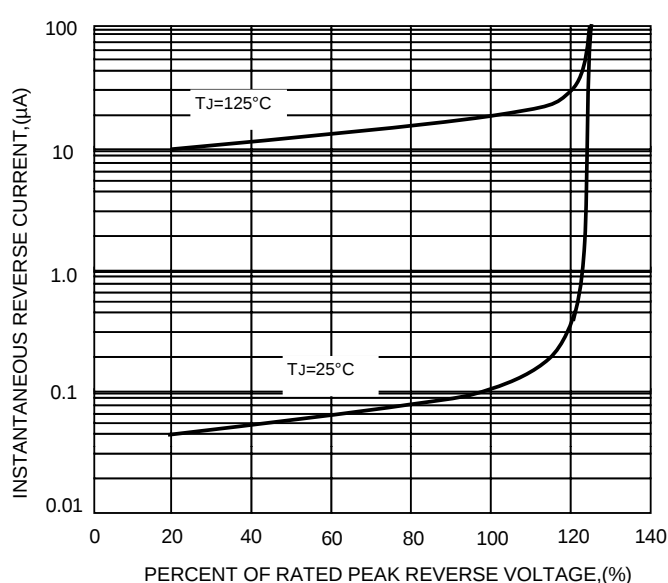


FIG.5-TYPICAL REVERSE CHARACTERISTICS





## Ordering Information:

| Device PN                                         | Packing                |
|---------------------------------------------------|------------------------|
| Part Number-T <sup>(1)</sup> G <sup>(2)</sup> -WS | Tape&Reel: 5 Kpcs/Reel |

Note: (1) Packing code, Tape & Reel Packing

(2) RoHS product for packing code suffix "G" ; Halogen free product for packing code suffix "H"

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