

**GLASS PASSIVATED BRIDGE RECTIFIERS**

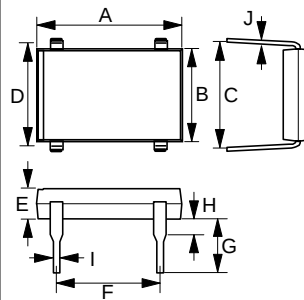
REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **1.0** Amperes

**FEATURES**

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability.
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead Pb/Sn copper
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E95060

**MECHANICAL DATA**

- Polarity : As marked on Body
- Weight : 0.02 ounces, 0.38 grams
- Mounting position : Any

**DF**


| DF                           |      |      |
|------------------------------|------|------|
| DIM.                         | MIN. | MAX. |
| A                            | 8.20 | 8.50 |
| B                            | 6.20 | 6.50 |
| C                            | 7.60 | 8.90 |
| D                            | 7.40 | 7.60 |
| E                            | 2.40 | 2.60 |
| F                            | 5.00 | 5.20 |
| G                            | 4.10 | 4.60 |
| H                            | 1.50 | 1.70 |
| I                            | 0.41 | 0.51 |
| J                            | 0.22 | 0.30 |
| All Dimensions in millimeter |      |      |

**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%

| CHARACTERISTICS                                                                                            | SYMBOL          | DF005M      | DF01M | DF02M | DF04M | DF06M | DF08M | DF10M | UNIT                 |
|------------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|-------|-------|-------|-------|-------|----------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                     | $V_{RRM}$       | 50          | 100   | 200   | 400   | 600   | 800   | 1000  | V                    |
| Maximum RMS 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 Current @ $T_A=40^\circ\text{C}$                                         | $I_{(AV)}$      | 1.0         |       |       |       |       |       |       | A                    |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC METHOD)           | $I_{FSM}$       | 50          |       |       |       |       |       |       | A                    |
| Maximum forward Voltage at 1.0A DC                                                                         | $V_F$           | 1.1         |       |       |       |       |       |       | V                    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @ $T_J=25^\circ\text{C}$ @ $T_J=125^\circ\text{C}$ | $I_R$           | 10<br>500   |       |       |       |       |       |       | $\mu\text{A}$        |
| $I^2 t$ Rating for fusing ( $t < 8.3\text{ms}$ )                                                           | $I^2 t$         | 10.4        |       |       |       |       |       |       | $\text{A}^2\text{S}$ |
| Typical Junction Capacitance per element (Note 1)                                                          | $C_J$           | 25          |       |       |       |       |       |       | pF                   |
| Typical Thermal Resistance (Note 2)                                                                        | $R_{\theta JA}$ | 40          |       |       |       |       |       |       | $^\circ\text{C/W}$   |
| Operating Temperature Range                                                                                | $T_J$           | -55 to +150 |       |       |       |       |       |       | $^\circ\text{C}$     |
| Storage Temperature Range                                                                                  | $T_{STG}$       | -55 to +150 |       |       |       |       |       |       | $^\circ\text{C}$     |

NOTES : 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5x0.5" (13x13mm) copper pads.

REV. 2, 01-Dec-2000, KBDC01

FIG.1 - FORWARD CURRENT DERATING CURVE

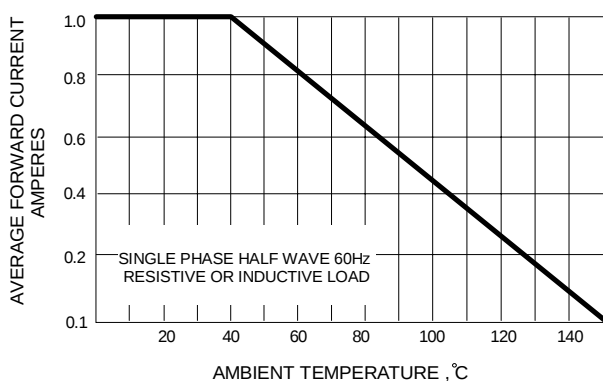


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

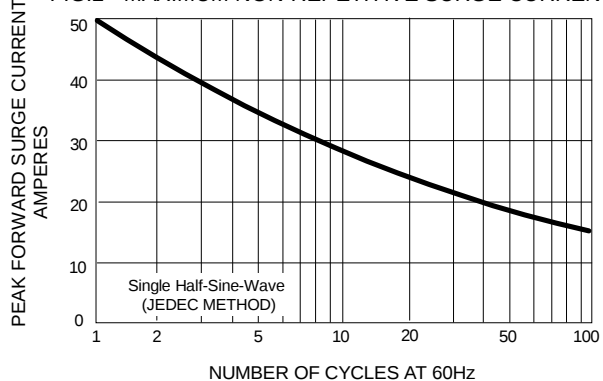


FIG.3 - TYPICAL JUNCTION CAPACITANCE

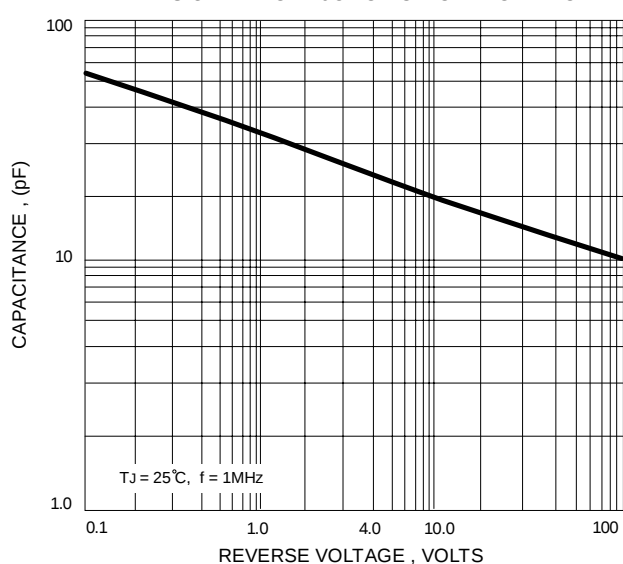


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

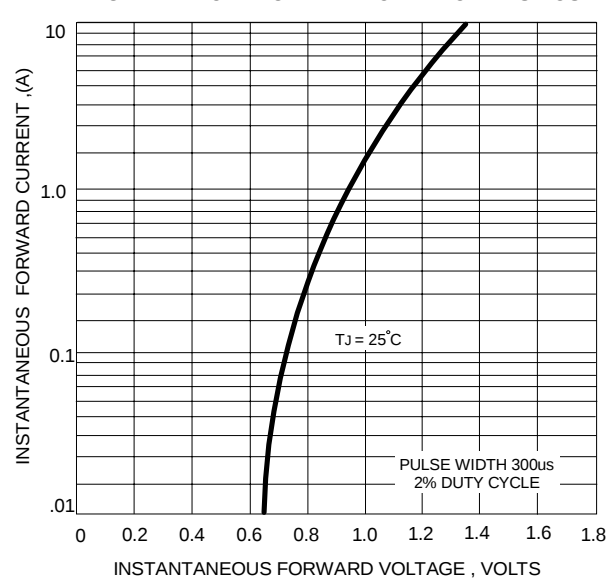


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

