



TMMDB3 / TMMDB3TG

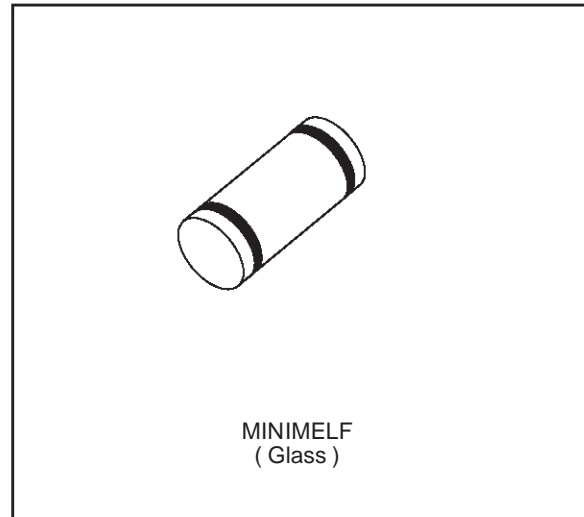
TRIGGER DIODES

FEATURES

- V_{BO} : 32V VERSION
- LOW BREAKOVER CURRENT

DESCRIPTION

High reliability glass passivation insuring parameter stability and protection against junction contamination.



ABSOLUTE RATINGS (limiting values)

| Symbol | Parameter | | Value | Unit |
|--------------------|--|--|--------------------------------|--------------------------------------|
| P | Power dissipation on printed circuit (L = 10 mm) | $T_a = 65\text{ }^\circ\text{C}$ | 150 | mW |
| I_{TRM} | Repetitive peak on-state current | $t_p = 20\text{ }\mu\text{s}$ $F = 100\text{ Hz}$ | 2 | A |
| T_{stg} T_j | Storage and operating junction temperature range | | - 40 to + 125 - 40 to + 125 | $^\circ\text{C}$ $^\circ\text{C}$ |

THERMAL RESISTANCES

| Symbol | Parameter | Value | Unit |
|---------------|-----------------------|-------|--------------------|
| $R_{th(j-a)}$ | Junction to ambient | 400 | $^\circ\text{C/W}$ |
| $R_{th(j-l)}$ | Junction to tie-point | 300 | $^\circ\text{C/W}$ |

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ELECTRICAL CHARACTERISTICS (T_j = 25°C)

| Symbol | Parameter | Test Conditions | | Value | | Unit |
|--|-----------------------------|---|-----|--------|----------|------|
| | | | | TMMDB3 | TMMDB3TG | |
| V _{BO} | Breakover voltage * | C = 22nF ** see diagram 1 | MIN | 28 | 30 | V |
| | | | TYP | 32 | 32 | |
| | | | MAX | 36 | 34 | |
| [+V _{BO} - -V _{BO}] | Breakover voltage symmetry | C = 22nF ** see diagram 1 | MAX | ± 3 | ± 2 | V |
| ΔV± I | Dynamic breakover voltage * | ΔI = [I _{BO} to I _F = 10 mA] see diagram 1 | MIN | 5 | | V |
| V _O | Output voltage * | see diagram 2 | MIN | 5 | | V |
| I _{BO} | Breakover current * | C = 22nF ** | MAX | 100 | 15 | μA |
| t _r | Rise time * | see diagram 3 | TYP | 1.5 | | μs |
| I _B | Leakage current * | V _B = 0.5 V _{BO} max see diagram 1 | MAX | 10 | | μA |

* Electrical characteristic applicable in both forward and reverse directions.

** Connected in parallel with the devices.

DIAGRAM 1 : Current-voltage characteristics

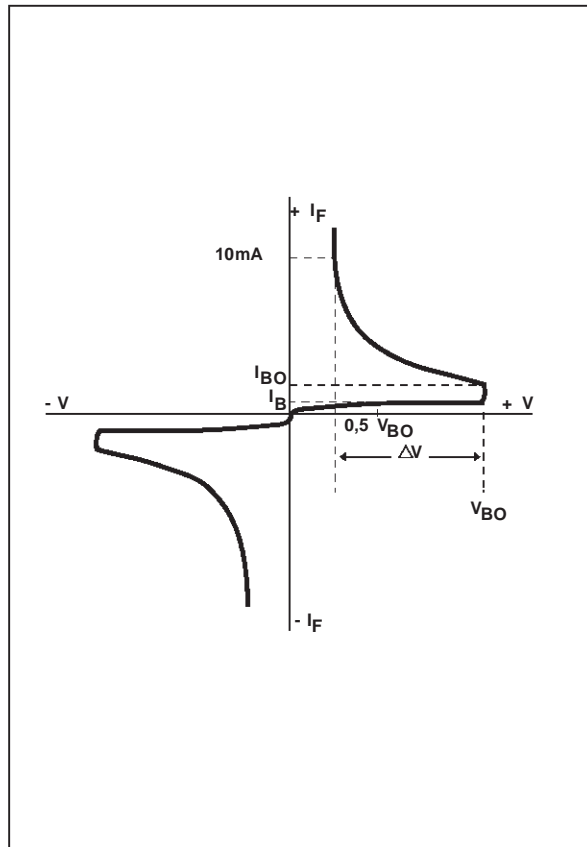


DIAGRAM 2 : Test circuit for output voltage

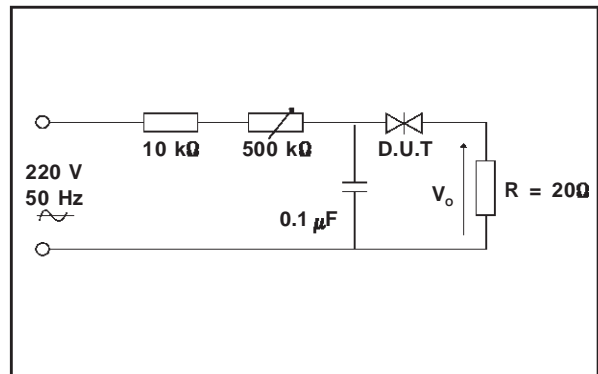


DIAGRAM 3 : Test circuit see diagram 2.
Adjust R for I_p = 0.5A

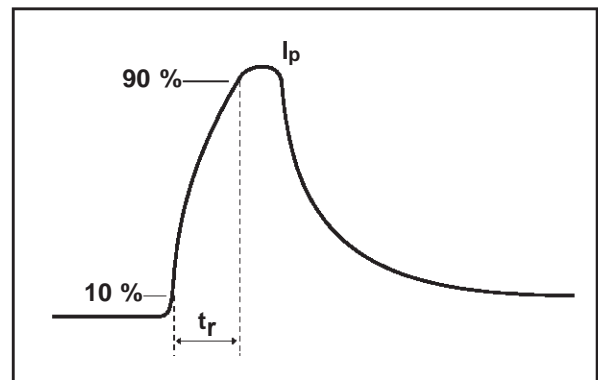


Fig.1 : Power dissipation versus ambient temperature (maximum values)

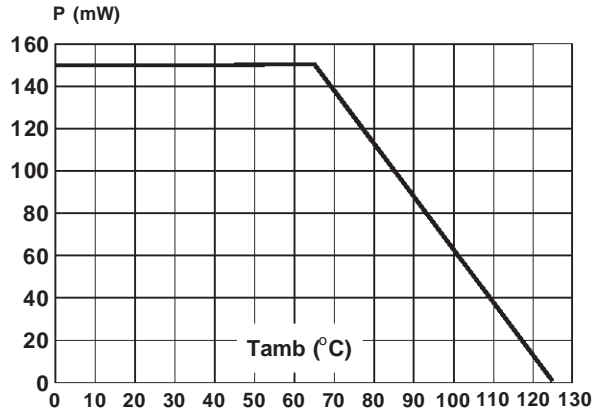


Fig.2 : Relative variation of V_{BO} versus junction temperature (typical values)

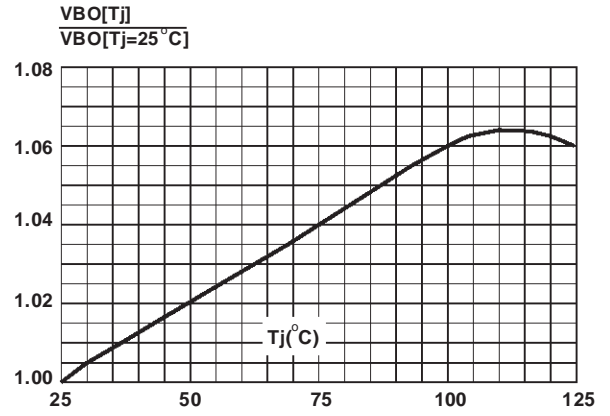
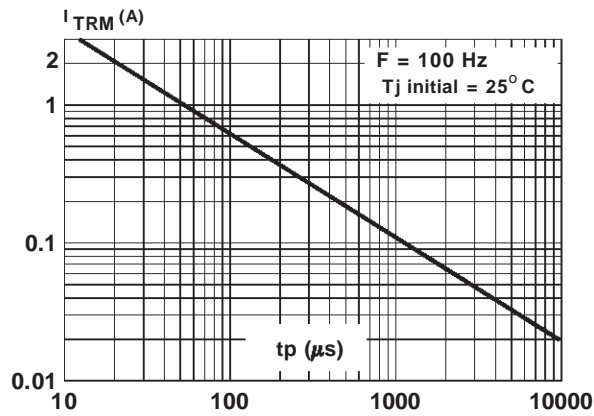
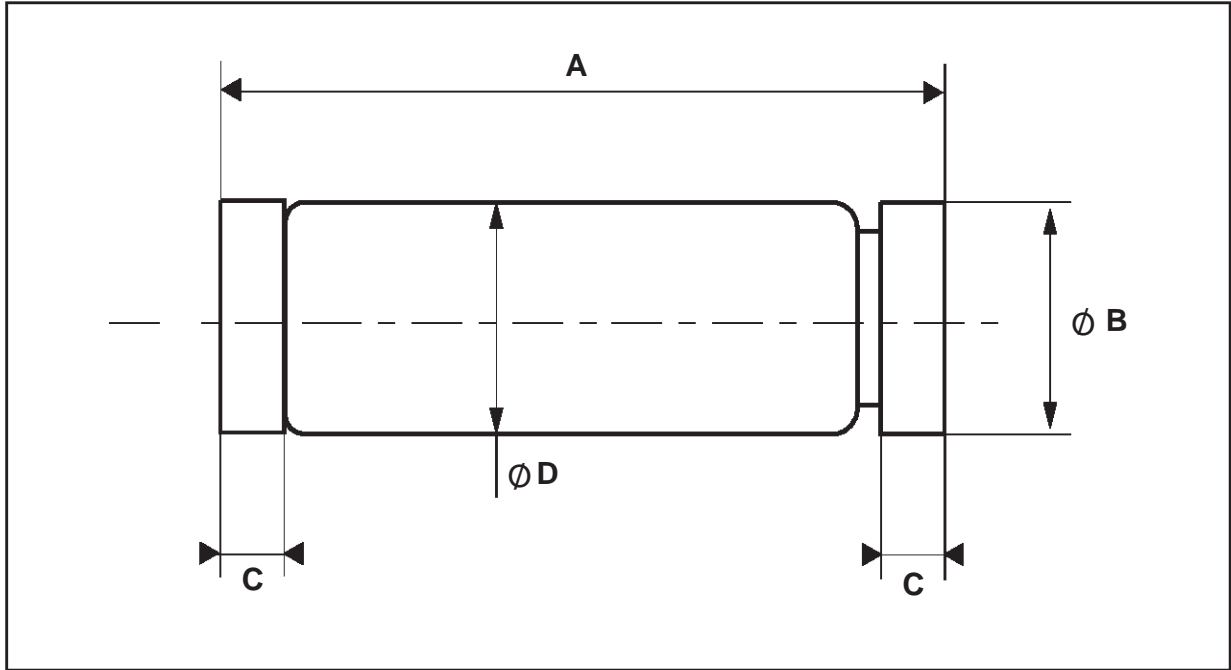


Fig.3 : Peak pulse current versus pulse duration (maximum values)



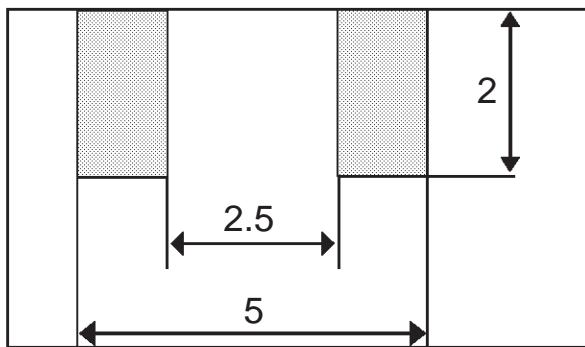
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PACKAGE MECHANICAL DATA (in millimeters)
MINIMELF Glass



| REF. | DIMENSIONS | | | | | |
|------|-------------|------|------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 3.30 | 3.40 | 3.6 | 0.130 | 0.134 | 0.142 |
| Ø B | 1.59 | 1.60 | 1.62 | 0.063 | 0.063 | 0.064 |
| C | 0.40 | 0.45 | 0.50 | 0.016 | 0.018 | 0.020 |
| Ø D | | 1.50 | | | 0.059 | |

FOOT PRINT (in millimeters)



- **Marking** : Clear
- **Cooling method** by convection and conduction
- **Polarity** : N A
- **Stud torque** : N A
- **Weight** : 0.0380 g

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