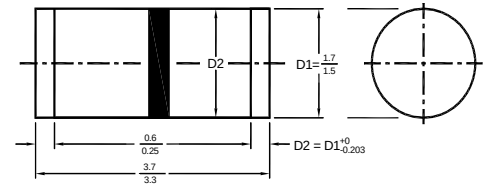


LMDB3

Silicon Bidirectional Trigger Diodes

These diacs are intended for use in thyristor phase control, circuits for lamp-dimming, universal-motor speed controls, and heat controls.



MiniMELF (DO-213AA) Plastic Package
Dimensions in millimeters

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation ($T_a = 65^\circ\text{C}$)	P_{tot}	150	mW
Repetitive Peak On-state Current ($t_p = 20\ \mu\text{s}$, $f = 100\ \text{Hz}$)	I_{TRM}	2	A
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 40 to + 125	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Breakover Voltage at $C = 22\ \text{nF}$, see diagram 1	V_{BO}	28	36	V
Breakover Voltage Symmetry at $C = 22\ \text{nF}$, see diagram 1	$[+V_{\text{BO}} - -V_{\text{BO}}]$	-	3	V
Dynamic Breakover Voltage at $\Delta I = [I_{\text{BO}} \text{ to } I_F = 10\ \text{mA}]$	$ \Delta V \pm $	5	-	V
Output Voltage See diagram 2	V_O	5	-	V
Breakover Current at $C = 22\ \text{nF}$	I_{BO}	-	50	μA
Leakage Current at $V_B = 0.5 V_{\text{BO}} \text{ max}$	I_B	-	10	μA
Rise Time See diagram 3	t_r	-	2	μs

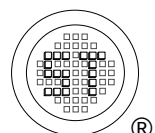


Diagram 1: Current-voltage characteristics

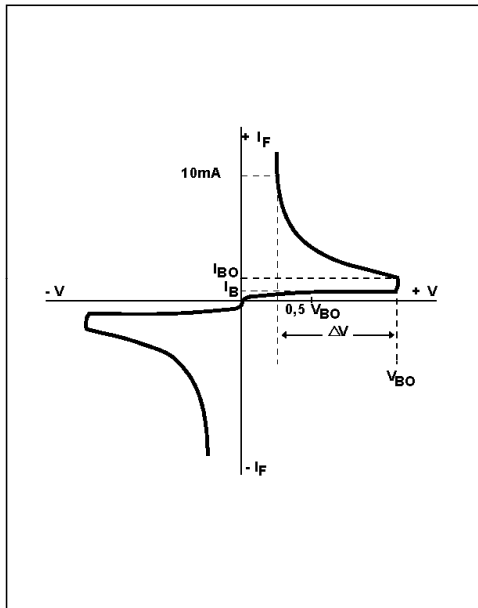


Fig. 1: Power dissipation versus ambient temperature (maximum values)

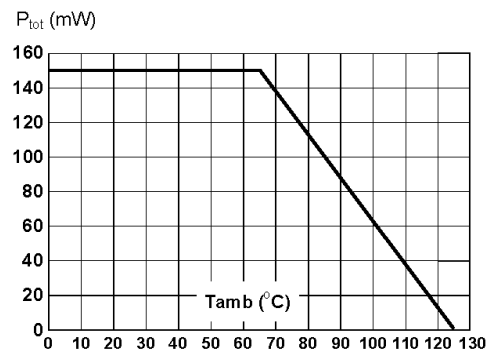


Fig. 3: Peak pulse current versus pulse duration (maximum values)

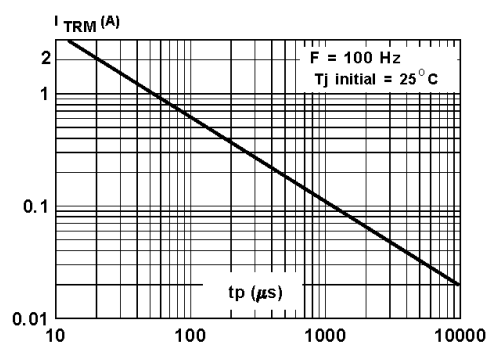


Diagram 2: Test circuit for output voltage

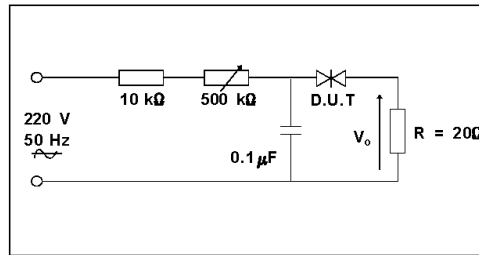


Diagram 3: Test circuit see diagram 2. Adjust R for I_p=0.5A

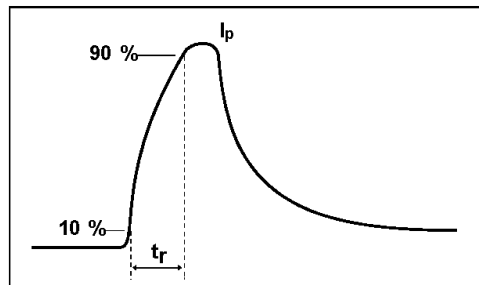


Fig. 2: Relative variation of V_{BO} versus junction temperature (typical values)

