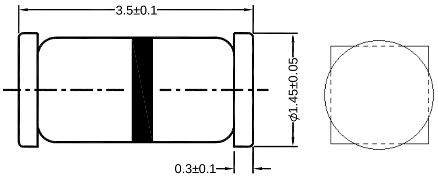
LSDB3, LSDB4

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.

LS-34



Glass Case Quadro MELF
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

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

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Max.	Unit
Breakover Voltage at C = 22 nF, see diagram 1	LSDB3	V_{BO}	28	36	V
	LSDB4		35	45	
Breakover Voltage Symmetry at C = 22 nF, see diagram 1		$[\lvert +V_{BO}\rvert - \lvert -V_{BO}\rvert]$	-	3	V
Dynamic Breakover Voltage at $\Delta I = [I_{BO}$ to $I_F = 10$ mA]		$\lvert \Delta V \pm \rvert$	5	-	V
Output Voltage See diagram 2		V_O	5	-	V
Breakover Current at C = 22 nF		I_{BO}	-	50	µA
Leakage Current at $V_B = 0.5\ V_{BO}$ max		I_B	-	10	µA
Rise Time See diagram 3		t_r	-	2	µs

Diagram 1: Current-voltage characteristics

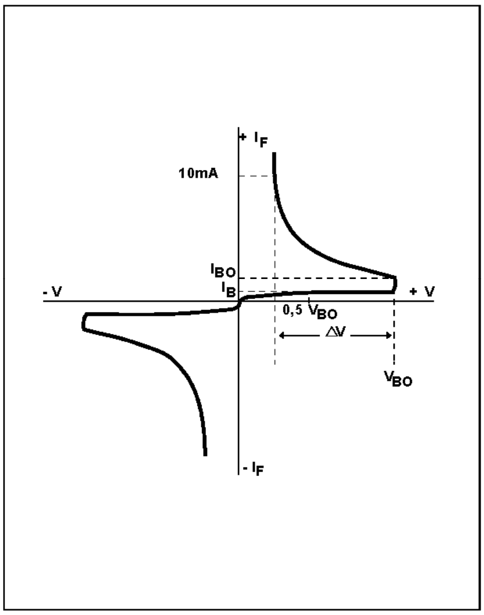


Diagram 2: Test circuit for output voltage

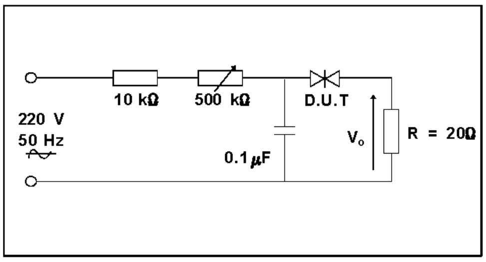


Diagram 3: Test circuit see diagram 2.
Adjust R for Ip=0.5A

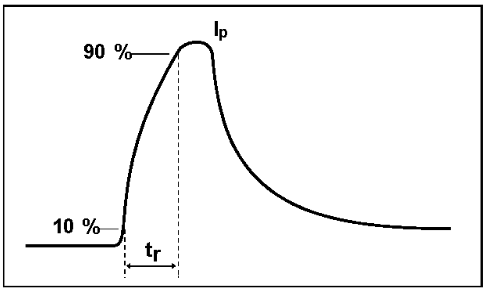


Fig. 1: Power dissipation versus ambient temperature (maximum values)

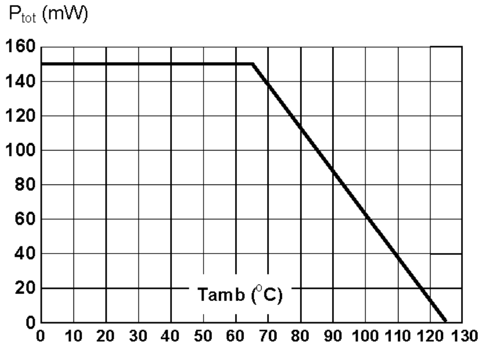


Fig. 2: Relative variation of V_{BO} versus junction temperature (typical values)

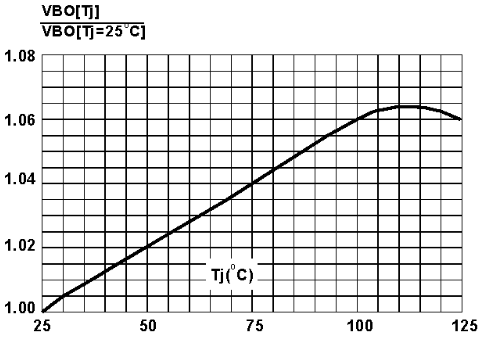


Fig. 3: Peak pulse current versus pulse duration (maximum values)