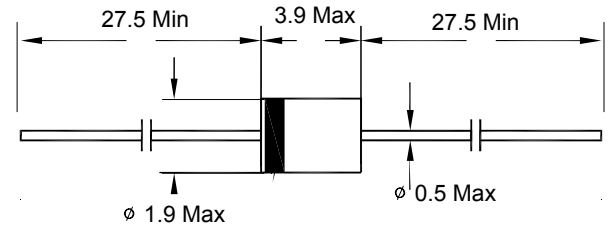


## DB3, DB4, DC34

### 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.



DO-35 Dimensions in millimeters

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

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

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

Parameter	Symbol	Min.	Max.	Unit
Breakover Voltage at $C = 22\text{ nF}$ , see diagram 1	DB3	28	36	V
	DC34	30	38	
	DB4	35	45	
Breakover Voltage Symmetry at $C = 22\text{ nF}$ , see diagram 1	$[ +V_{BO}  -  -V_{BO} ]$	-	3	V
Dynamic Breakover Voltage at $\Delta I = [I_{BO}\text{ to } I_F = 10\text{ mA}]$	$ \Delta V_{\pm} $	5	-	V
Output Voltage See diagram 2	$V_O$	5	-	V
Breakover Current at $C = 22\text{ nF}$	$I_{BO}$	-	50	$\mu\text{A}$
Leakage Current at $V_B = 0.5 V_{BO}\text{ max}$	$I_B$	-	10	$\mu\text{A}$
Rise Time See diagram 3	$t_r$	-	2	$\mu\text{s}$

**DB3, DB4, DC34**

Diagram 1: Current-voltage characteristics

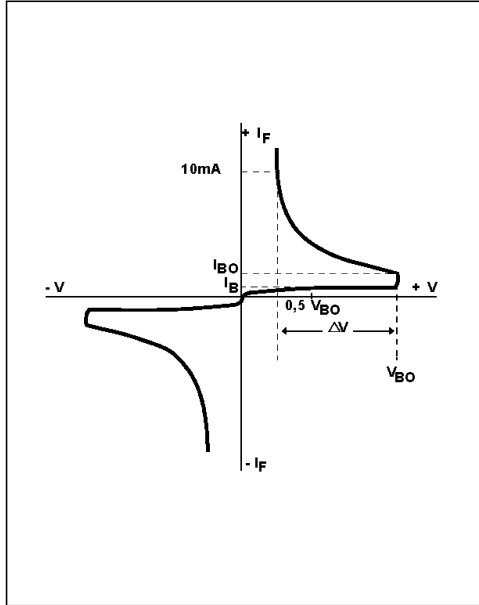


Diagram 2: Test circuit for output voltage

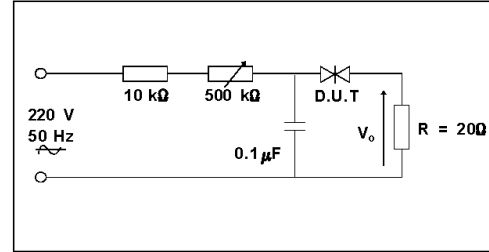


Diagram 3: Test circuit see diagram 2. Adjust R for  $I_p=0.5A$

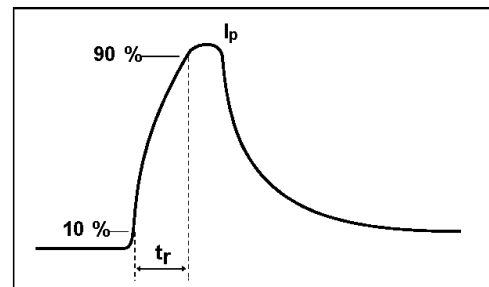


Fig. 1: Power dissipation versus ambient temperature (maximum values)

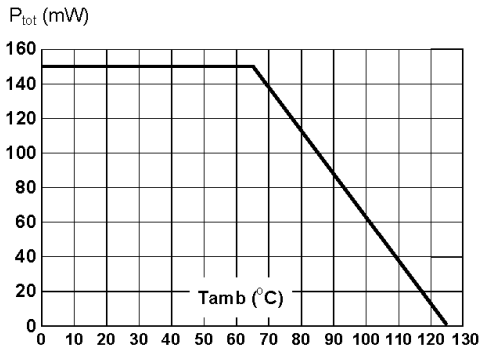


Fig. 2: Relative variation of  $V_{BO}$  versus junction temperature (typical values)

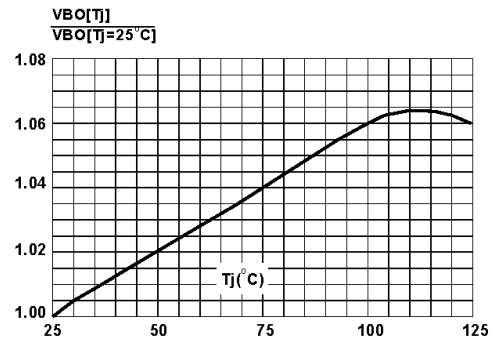


Fig. 3: Peak pulse current versus pulse duration (maximum values)

