

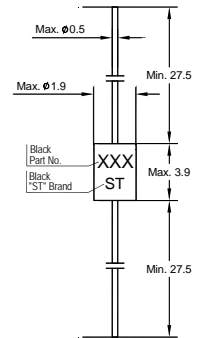
# DB3PF, DC34PF

## 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.

### Features

- Lead Free



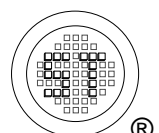
Glass Case DO-35  
Dimensions in mm

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

Parameter	Symbol	Value	Unit
Power Dissipation ( $T_a = 65^\circ\text{C}$ )	$P_{\text{tot}}$	150	mW
Repetitive Peak On-state Current ( $t_p = 20 \mu\text{s}$ , $f = 100 \text{ Hz}$ )	$I_{\text{TRM}}$	2	A
Operating Junction and Storage Temperature Range	$T_j, T_{\text{stg}}$	- 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	DB3PF	28	36	V
	DC34PF	30	38	
Breakover Voltage Symmetry at $C = 22 \text{ nF}$ , see diagram 1	$[ +V_{\text{BO}}  -  -V_{\text{BO}} ]$	-	3	V
Dynamic Breakover Voltage at $\Delta I = [I_{\text{BO}} \text{ to } I_{\text{F}} = 10 \text{ mA}]$	$ \Delta V_{\pm} $	5	-	V
Output Voltage See diagram 2	$V_{\text{O}}$	5	-	V
Breakover Current at $C = 22 \text{ nF}$	$I_{\text{BO}}$	-	50	$\mu\text{A}$
Leakage Current at $V_{\text{B}} = 0.5 V_{\text{BO}} \text{ max}$	$I_{\text{B}}$	-	10	$\mu\text{A}$
Rise Time See diagram 3	$t_{\text{r}}$	-	2	$\mu\text{s}$



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## Electrical Characteristics Curves

Diagram 1: Current-voltage characteristics

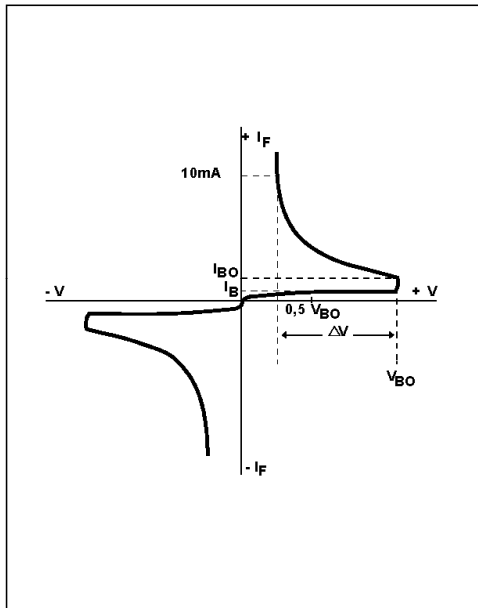


Diagram 2: Test circuit for output voltage

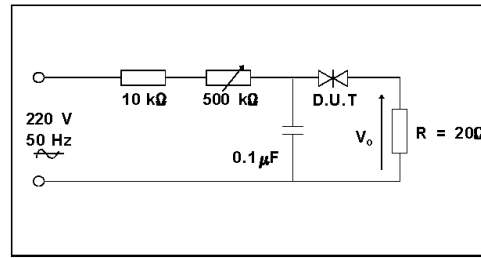


Diagram 3: Test circuit see diagram 2. Adjust R for  $I_p=0.5A$

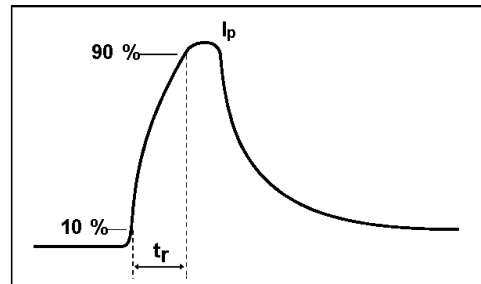


Fig. 1: Power dissipation versus ambient temperature (maximum values)

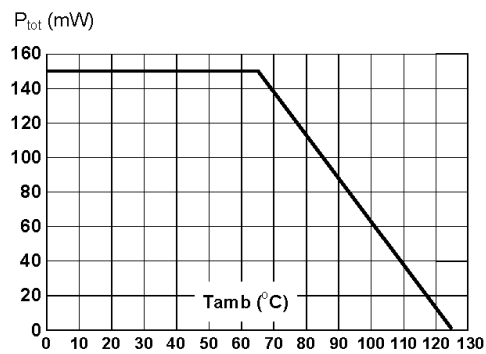


Fig. 2: Relative variation of  $V_{BO}$  versus junction temperature (typical values)

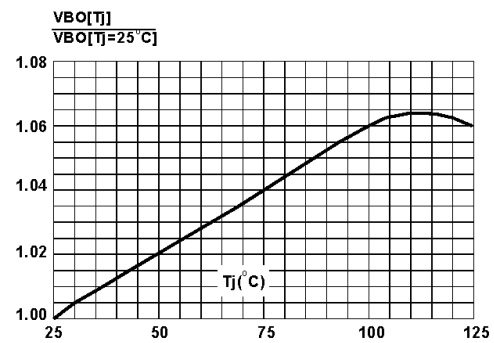
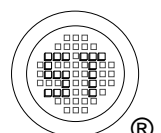
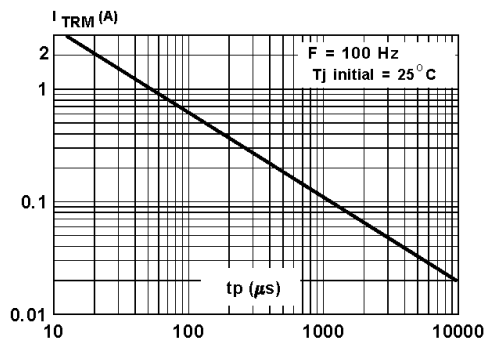


Fig. 3: Peak pulse current versus pulse duration (maximum values)



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