



DC 34/DC 38/DC 42

S G S-THOMSON

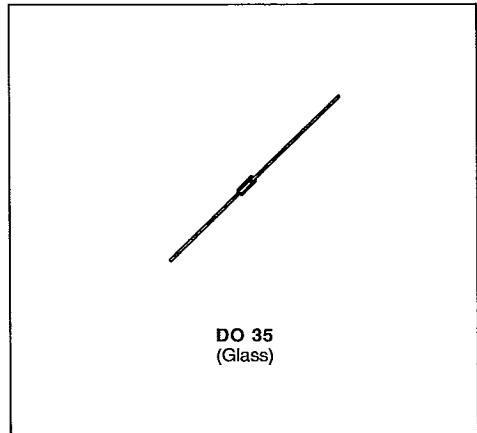
TRIGGER DIODES

**APPLICATIONS**

Thyristors and triacs triggering.

**ADVANTAGES**

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)	150	mW
I <sub>TRM</sub>	Repetitive Peak on-state Current	2	A
T <sub>stg</sub> T <sub>J</sub>	Storage and Operating Junction Temperature Range	- 40 to 125 - 40 to 110	°C °C

**THERMAL RESISTANCES**

Symbol	Parameter	Value	Unit
R <sub>th</sub> (j-a)	Junction-ambient	400	°C/W
R <sub>th</sub> (j-l)	Junction-leads	150	°C/W

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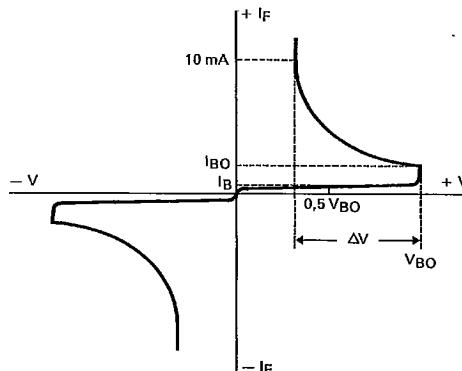
ELECTRICAL CHARACTERISTICS ( $T_j = 25^\circ\text{C}$ )

Symbol	Parameter	Test Conditions	Types	Min.	Typ.	Max.	Unit
$V_{BO}$	Breakover Voltage*	C = 22 nF** See diagram 1	DC34	30	34	38	V
			DC38	35	38	42	
			DC42	39	42	45	
$ +V_{BO}  -  V_{BO} $	Breakover Voltage Symmetry	C = 22 nF** See diagram 1				$\pm 3$	V
$ \Delta V \pm $	Dynamic Breakback Voltage*	$\Delta I = [I_{BO} \text{ to } I_F = 10 \text{ mA}]$ See diagram 1		5			V
$V_O$	Output Voltage*	See diagram 2		5			V
$I_{BO}$	Breakover Current*	C = 22 nF**				50	$\mu\text{A}$
$t_r$	Rise Time*	See diagram 3			1.5		$\mu\text{s}$
$I_B$	Leakage Current*	$V_B = 0.5 \text{ V}_{BO} \text{ max}$ See diagram 1				10	$\mu\text{A}$

\* Electrical characteristic applicable in both forward and reverse directions.

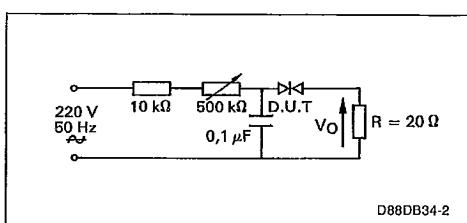
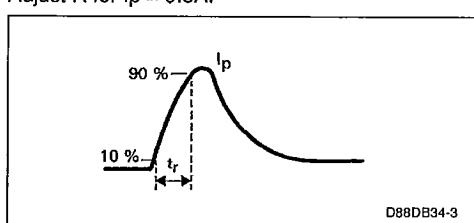
\*\* Connected in parallel with the device.

DIAGRAM 1 : Current-voltage characteristics.



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DIAGRAM 2 : Test circuit for output voltage.

DIAGRAM 3 : Test circuit see diagram 2.  
Adjust R for  $I_p = 0.5 \text{ A}$ .

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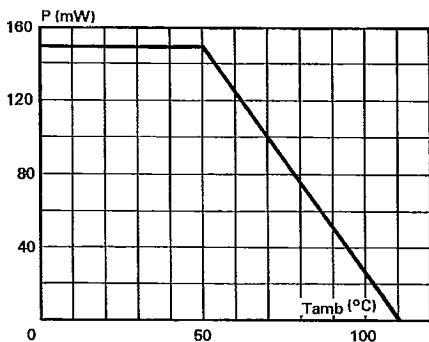


Fig. 1 - Power dissipation versus ambient temperature (maximum values).

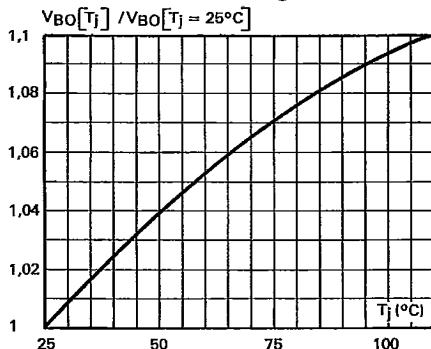
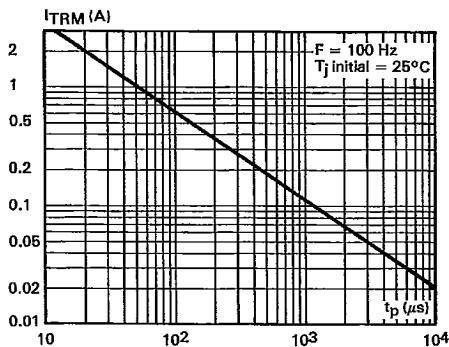
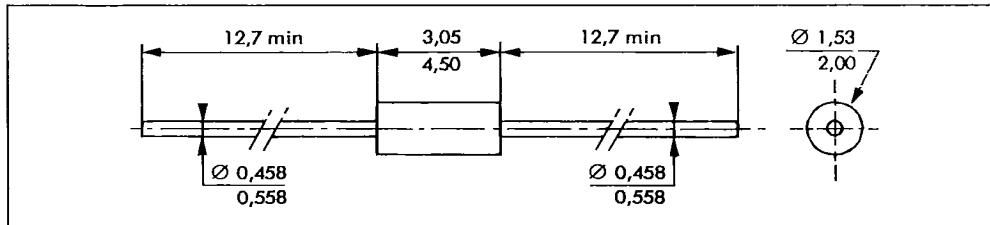
Fig. 2 - Relative variation of  $V_{BO}$  versus junction temperature (typical values).

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

## PACKAGE MECHANICAL DATA

DO 35 Glass



Weight : 0.15 g.

Marking : clear.