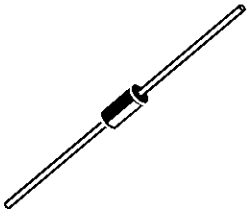
SGS-THOMSON MICROELECTRONICS

DB3 /DB4 / DC34

TRIGGER DIODES

FEATURES

- V_{BO} : 32V / 34V / 40V VERSIONS
- LOW BREAKOVER CURRENT



DO 35
(Glass)

DESCRIPTION

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)	Ta = 65 °C	150	mW
I_{TRM}	Repetitive peak on-state current	tp = 20 µs F= 100 Hz	2	A
Tstg Tj	Storage and operating junction temperature range		- 40 to + 125 - 40 to + 125	°C °C

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th\ (j-a)}$	Junction to ambient	400	°C/W
$R_{th\ (j-l)}$	Junction-leads	150	°C/W

ELECTRICAL CHARACTERISTICS (Tj = 25°C)

Symbol	Parameter	Test Conditions		Value			Unit
				DB3	DC34	DB4	
V_{BO}	Breakover voltage *	C = 22nF ** see diagram 1	MIN	28	30	35	V
			TYP	32	34	40	
			MAX	36	38	45	
$[I+V_{BO}I-I-V_{BO}I]$	Breakover voltage symmetry	C = 22nF ** see diagram 1	MAX	± 3			V
$I\Delta V\pm I$	Dynamic breakover voltage *	$\Delta I = [I_{BO}$ to I_F=10mA] see diagram 1	MIN	5			V
V_O	Output voltage *	see diagram 2	MIN	5			V
I_{BO}	Breakover current *	C = 22nF **	MAX	100	50	100	µA
tr	Rise time *	see diagram 3	TYP	1.5			µs
I_B	Leakage current *	V_B = 0.5 V_{BO} max see diagram 1	MAX	10			µA

* Electrical characteristic applicable in both forward and reverse directions.

** Connected in parallel with the devices.

DIAGRAM 1 : Current-voltage characteristics

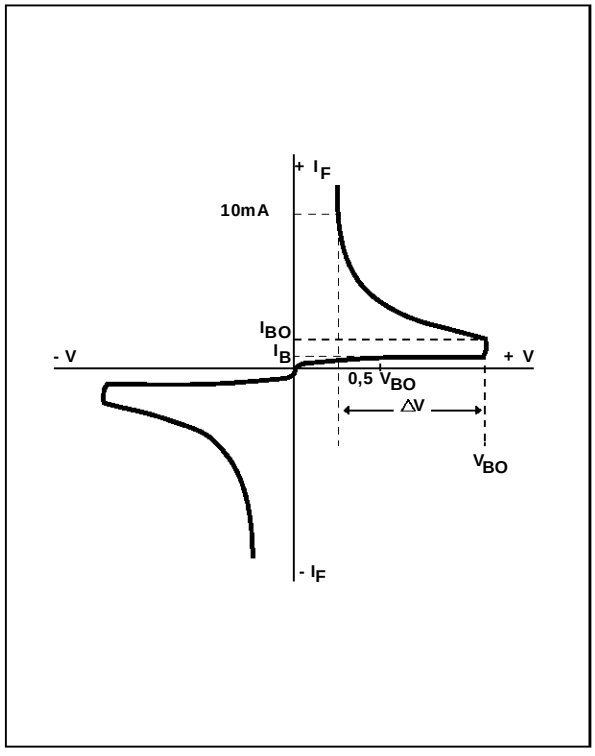


DIAGRAM 2 : Test circuit for output voltage

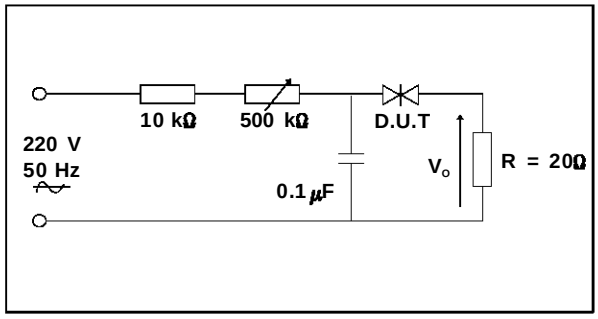


DIAGRAM 3 : Test circuit see diagram 2.
Adjust R for Ip=0.5A

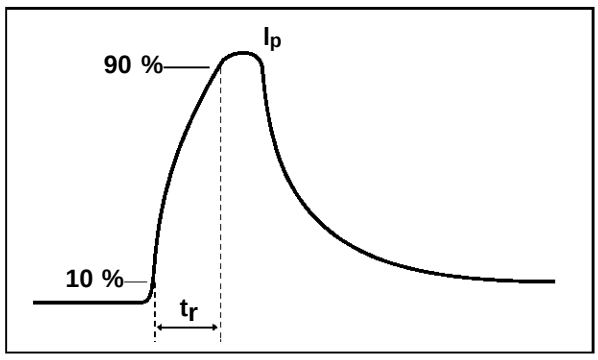


Fig.1 : Power dissipation versus ambient temperature (maximum values)

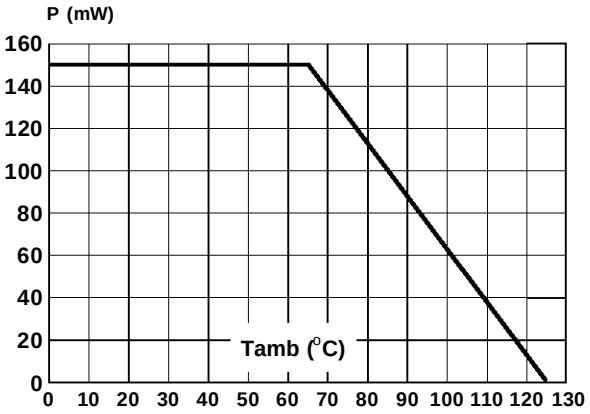


Fig.2 : Relative variation of V_{BO} versus junction temperature (typical values)

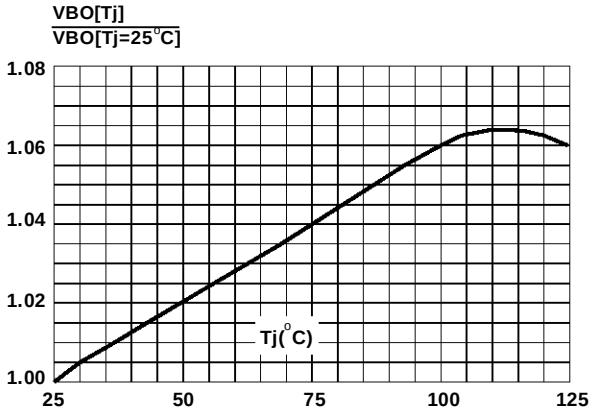
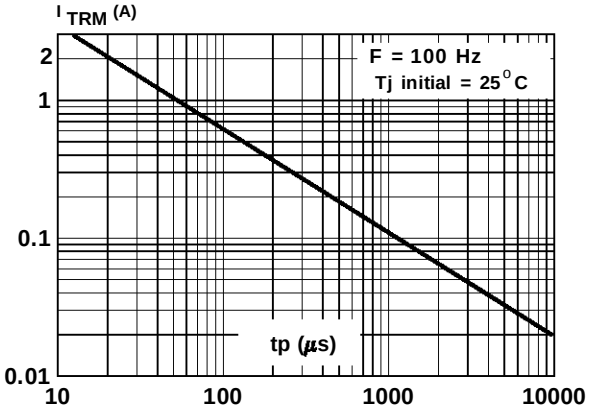
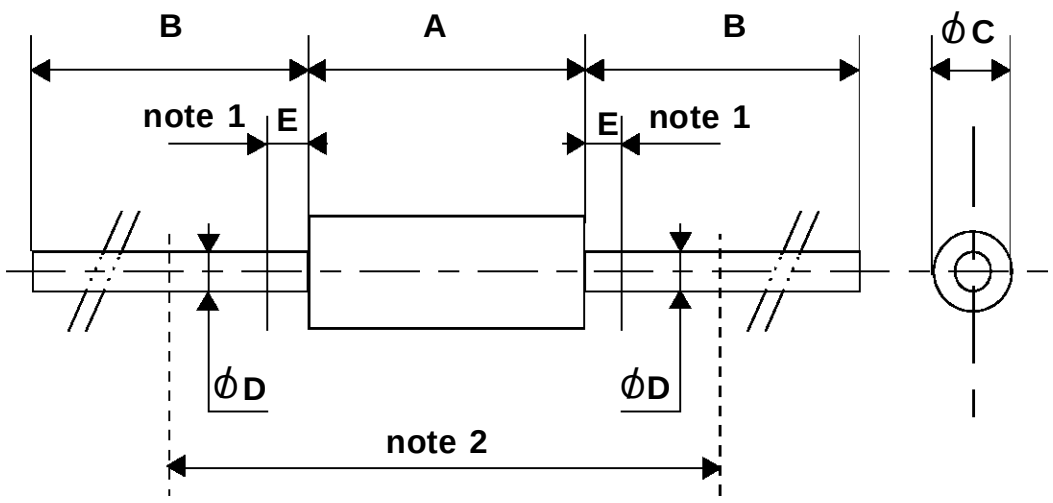


Fig.3 : Peak pulse current versus pulse duration (maximum values)



PACKAGE MECHANICAL DATA (in millimeters)
DO 35 Glass



REF.	DIMENSIONS				NOTES
	Millimeters		Inches		
	Min.	Max.	Min.	Max.	
A	3.050	4.500	0.120	0.117	1 - The lead diameter ∅ D is not controlled over zone E
B	12.7		0.500		2 - The minimum axial lengh within which the device may be placed with its leads bent at right angles is 0.59”(15 mm)
∅ C	1.530	2.000	0.060	0.079	
∅ D	0.458	0.558	0.018	0.022	
E		1.27		0.050	

Cooling method by convection and conduction
Marking : type number
Weight : 0.15 g

Polarity : N A
Stud torque : N A