

# DB3 /DB4 / DC34

# TRIGGER DIODES

### FEATURES

- VBO: 32V / 34V / 40V VERSIONS
- LOW BREAKOVER CURRENT



#### DESCRIPTION

High reliability glass passivation insuring parameter stability and protection against junction contamination.

#### ABSOLUTE RATINGS (limiting values)

Symbol	Parameter	Value	Unit	
Р	Power dissipation on printed circuit (L = 10 mm)	Ta = 65 °C	150	mW
I <sub>TRM</sub>	Repetitive peak on-state current	tp = 20 μs F= 100 Hz	2	А
Tstg Tj	Storage and operating junction temperat	ure range	- 40 to + 125 - 40 to + 125	°C °C

#### THERMAL RESISTANCES

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

## DB3 / DB4 / DC34

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

# **ELECTRICAL CHARACTERISTICS** (Tj = $25^{\circ}$ C)

\* 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











# **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)



### DB3 / DB4 / DC34

#### PACKAGE MECHANICAL DATA (in millimeters) DO 35 Glass

		B not	e 1 ⊨ ↓ ØD		A B ØC
		-			
REF.			ISIONS		NOTES
REF.	Millin	DIMEN		hes	
REF.	Millin Min.				
REF.		neters	Inc	hes	
	Min.	neters Max.	Inc Min.	hes Max.	NOTES 1 - The lead diameter Ø D is not controlled over zone E 2 - The minimum axial lengh within which the device may be
A	<b>Min.</b> 3.050	neters Max.	Inc Min. 0.120	hes Max.	NOTES 1 - The lead diameter Ø D is not controlled over zone E
A	Min. 3.050 12.7	Max.   4.500	Inc Min. 0.120 0.500	hes Max. 0.117	NOTES 1 - The lead diameter Ø D is not controlled over zone E 2 - The minimum axial lengh within which the device may be

Cooling method by convection and conduction Marking : type number Weight : 0.15 g Polarity : N A Stud torque : N A

Information furnished is believed to be accurate and reliable. However, SGS-THOMSON Microelectronics assumes no responsability for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of SGS-THOMSON Microelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. SGS-THOMSON Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of SGS-THOMSON Microelectronics.

© 1995 SGS-THOMSON Microelectronics - All rights reserved.

Purchase of I<sup>2</sup>C Components by SGS-THOMSON Microelectronics, conveys a license under the Philips I<sup>2</sup>C Patent. Rights to use these components in an I<sup>2</sup>C system, is granted provided that the system conforms to the I<sup>2</sup>C Standard Specifications as defined by Philips.

SGS-THOMSON Microelectronics GROUP OF COMPANIES

Australia - Brazil - France - Germany - Hong Kong - Italy - Japan - Korea - Malaysia - Malta - Morocco - The Netherlands -Singapore - Spain - Sweden - Switzerland - Taiwan - Thailand - United Kingdom - U.S.A.

