

Silicon bi-directional trigger device

BR100/05

PHILIPS INTERNATIONAL

DESCRIPTION

Silicon bi-directional trigger device intended for use in triac and thyristor trigger circuits. The device is mounted in a SOD27 (DO-35) encapsulation.

QUICK REFERENCE DATA

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_{(BO)}$	breakover voltage	30	34	V
V_O	output voltage	5	-	V
I_{FRM}	repetitive peak forward current	-	2	A

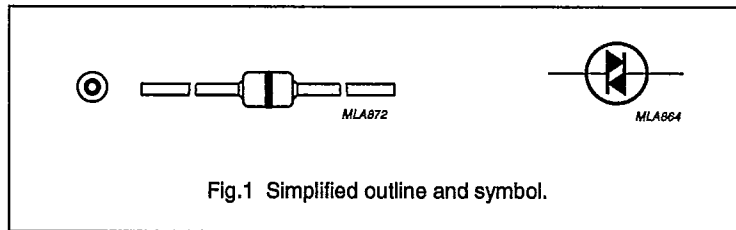


Fig. 1 Simplified outline and symbol.

LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
I_{FRM}	repetitive peak forward current	$t \leq 20 \mu s$	-	2	A
P_{tot}	total power dissipation	$T_{amb} = 50 \text{ }^\circ\text{C}$	-	150	mW
T_{stg}	storage temperature		-55	125	$^\circ\text{C}$
T_j	junction temperature		-	100	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	THERMAL RESISTANCE
$R_{th j-a}$	thermal resistance from junction to ambient	in free air	330 K/W

CHARACTERISTICS

$T_{amb} = 25 \text{ }^\circ\text{C}$ unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{(BO)}$	breakover voltage	$dV/dt = 10 \text{ V/ms}$	30	34	V
$I_{(BO)}$	breakover current	measuring voltage = $0.98 V_{(BO)}$	-	15	μA
$ V_{(BO)I} - V_{(BO)II} $	breakover voltage symmetry		-	2	V
V_O	output voltage	$dV/dt = 10 \text{ V/ms}$	5	-	V

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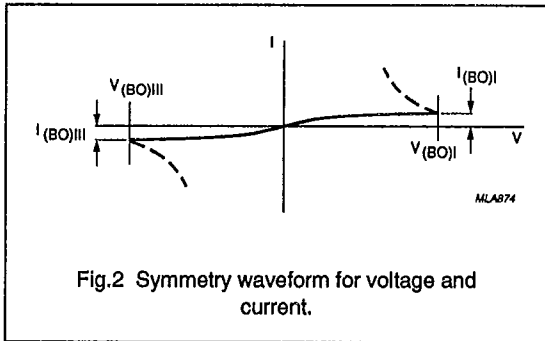


Fig.2 Symmetry waveform for voltage and current.

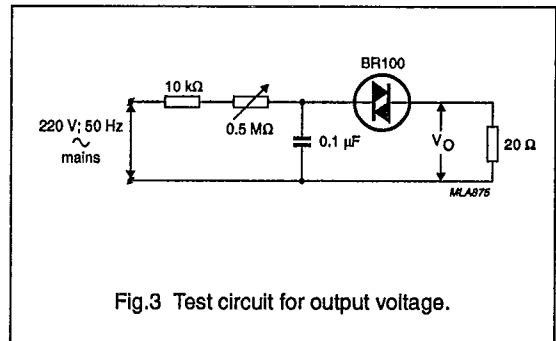
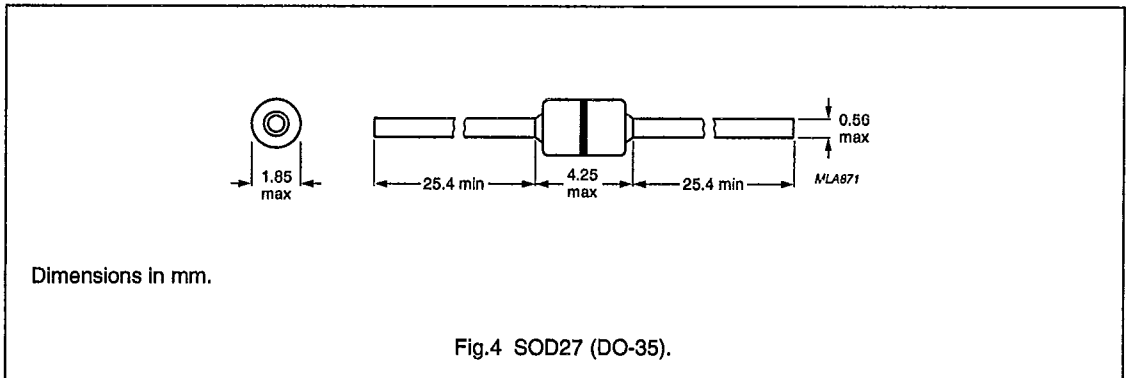


Fig.3 Test circuit for output voltage.

PACKAGE OUTLINE



Dimensions in mm.

Fig.4 SOD27 (DO-35).