

## Silicon Bi-directional Trigger Device

BR100/03 LLD

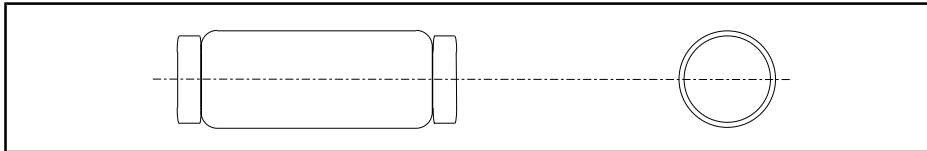
## GENERAL DESCRIPTION

Silicon bidirectional trigger device in a glass envelope suitable for surface mounting. The device is intended for use in triac and thyristor trigger circuits.

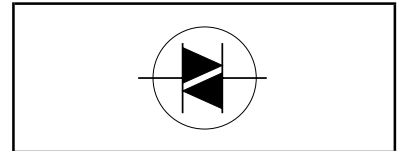
## QUICK REFERENCE DATA

SYMBOL	PARAMETER	MIN.	MAX.	UNIT
$V_{(BO)}$	Breakover voltage	28	36	V
$V_O$	Output voltage	7	-	V
$I_{FRM}$	Repetitive peak forward current	-	2	A

## OUTLINE - SOD80



## SYMBOL



## LIMITING VALUES

Limiting values in accordance with the Absolute Maximum System (IEC 134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$I_{FRM}$	Repetitive peak forward current	$t \leq 10 \mu\text{s}$ , $T_{tp} \leq 50^\circ\text{C}$ ; $f = 60 \text{ Hz}$	-	2	A
$P_{tot}$	Total power dissipation	$T_{tp} = 50^\circ\text{C}$	-	150	mW
$T_{stg}$	Storage temperature		-55	125	$^\circ\text{C}$
$T_j$	Operating junction temperature		-	100	$^\circ\text{C}$

## THERMAL RESISTANCES

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$R_{th\ j-tp}$	Thermal resistance junction to tie point	PCB mounted	-	330	-	K/W

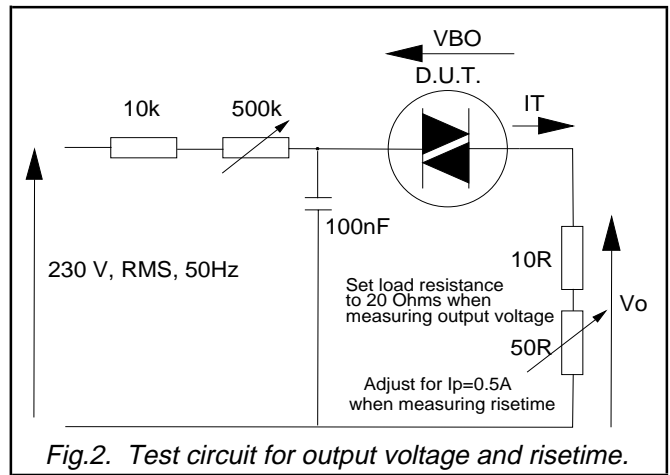
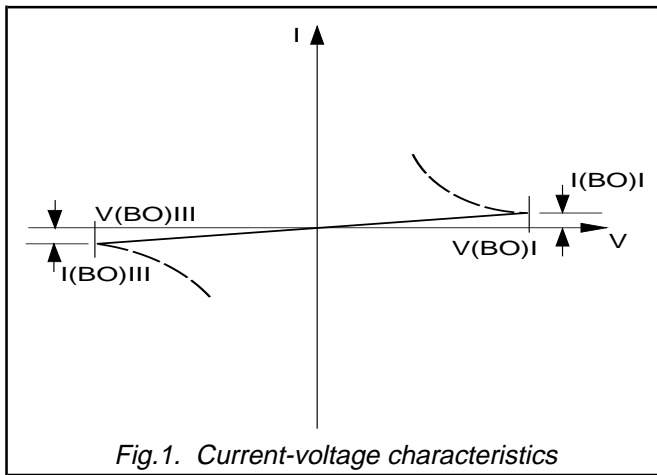
## CHARACTERISTICS

$T_a = 25^\circ\text{C}$  unless otherwise stated.

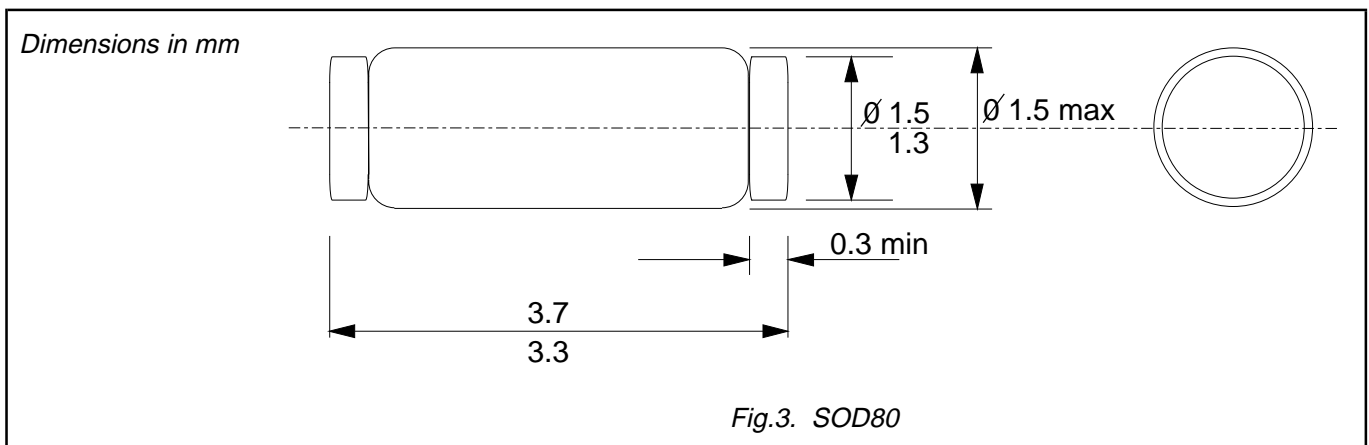
SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$V_{(BO)}$	Breakover voltage	$I = I_{(BO)}$	28	32	36	V
$ V_{(BO)+}  -  V_{(BO)-} $	Breakover voltage symmetry	$I = I_{(BO)}$ , see fig: 1	-	-	3.5	V
$V_O$	Output voltage	$R_L = 20 \Omega$ ; Circuit of fig: 2	7	-	-	V
$I_{(BO)}$	Breakover current	$V = V_{(BO)}$	-	-	50	$\mu\text{A}$
$dV_{(BO)}/dT$	Temperature coefficient of $V_{(BO)}$		-	0.1	-	%/K
$t_r$	Risetime	$I_p = 0.5 \text{ A}$ ; Circuit of fig: 2	-	1.5	-	$\mu\text{s}$

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MECHANICAL DATA



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**DEFINITIONS**

<b>Data sheet status</b>	
Objective specification	This data sheet contains target or goal specifications for product development.
Preliminary specification	This data sheet contains preliminary data; supplementary data may be published later.
Product specification	This data sheet contains final product specifications.
<b>Limiting values</b>	
Limiting values are given in accordance with the Absolute Maximum Rating System (IEC 134). Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Characteristics sections of this specification is not implied. Exposure to limiting values for extended periods may affect device reliability.	
<b>Application information</b>	
Where application information is given, it is advisory and does not form part of the specification.	
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