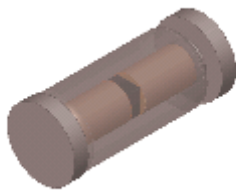


DIAC
**SOD80C
MINIMELF**


- Silicon bi-directional trigger device intended for use in thyristor (SCR and TRIAC) trigger circuits, energy saving lighting circuits and other switching functions.

BREAKOVER VOLTAGE	ON-STATE CURRENT
32 V	2.0 Amps

SPECIAL FEATURES:

- Low breakover current.
- Excellent symmetry.
- Very low leakage current.

Absolute Maximum Ratings, according to IEC publication No.

	PARAMETER	CONDITIONS	Min.	Typ.	Max.	Unit
P_{tot}	Total Power Dissipation	$T_a = 50^\circ\text{C}$			150	mW
I_{TRM}	Repetitive peak on-state current	$t_p = 20 \mu\text{s}$, $f = 100 \text{ Hz}$			2	A
T_{stg}	Storage Temperature Range		-40		+125	$^\circ\text{C}$
T_j	Operating Junction Temperature		-40		+110	$^\circ\text{C}$
T_{sld}	Soldering Temperature	$10 \leq \text{max.}$			260	$^\circ\text{C}$

Thermal Resistance

	PARAMETER	CONDITIONS	Min.	Typ.	Max.	Unit
$R_{th(j-a)}$	Junction to Ambient				400	$^\circ\text{C/W}$
$R_{th(j-l)}$	Junction to leads				150	$^\circ\text{C/W}$

Electrical Characteristics at $T_{amb} = 25^\circ\text{C}$

	PARAMETER	CONDITIONS	Min.	Typ.	Max.	Unit
V_{BO}	Breakover Voltage *	I_{BO} , $C = 22\text{nF}$ ** (see Figure 1)	28	32	36	V
$ V_{BO+} - V_{BO-} $	Breakover Voltage Symmetry	I_{BO} , $C = 22\text{nF}$ ** (see Figure 1)			± 3	V
$ \Delta V_{\pm} $	Dynamic breakover voltage *	$\Delta I = [I_{BO} \text{ to } I_F = 10 \text{ mA}]$ (see Figure 2)	5			V
V_O	Output Voltage *	(see Figure 3)	5			V
I_{BO}	Breakover Current *	$C = 22 \text{ nF}$ **			50	μA
t_r	Rise Time *	(see Figure 4)			2	μs
I_B	Leakage Current *	$V_B = 0.5 V_{BO} \text{ max}$ (see Figure 1)			10	μA
I_P	Peak Current *	see Figure 3 (Gate)	0.3			A

* Applicable to both forward and reverse directions.

** Connected in parallel with the devices.

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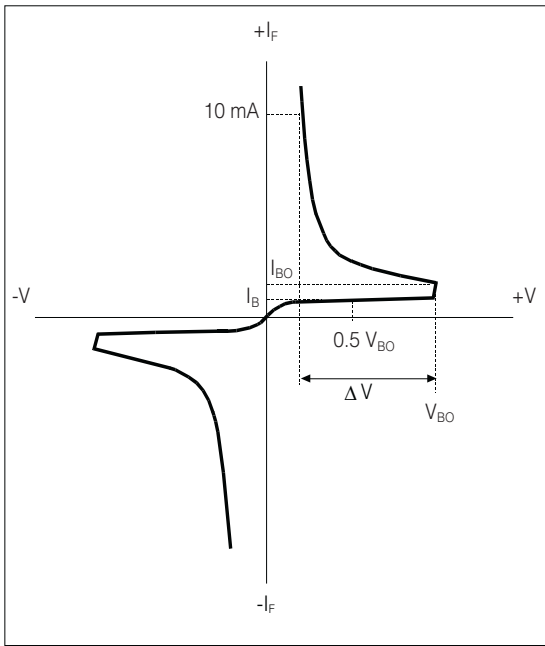


FIGURE 1: Current-Voltage Characteristics

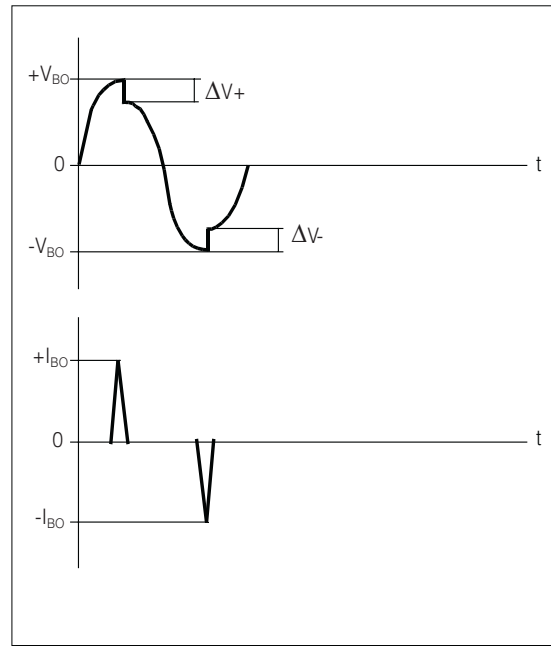


FIGURE 2

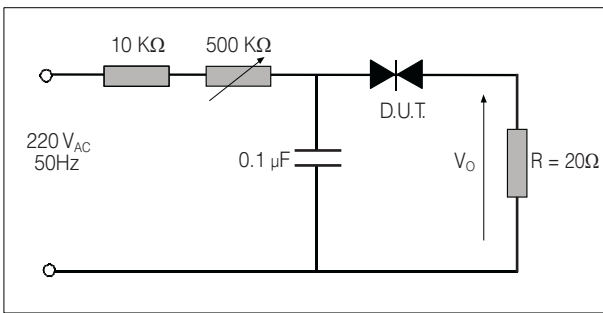


FIGURE 3: Test Circuit for Output Voltage.

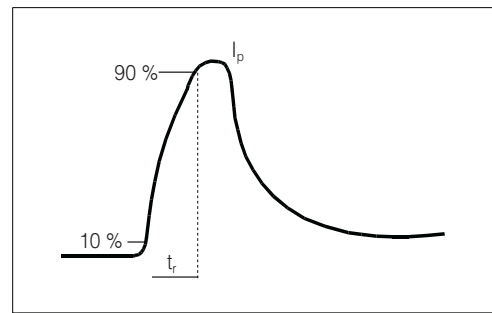
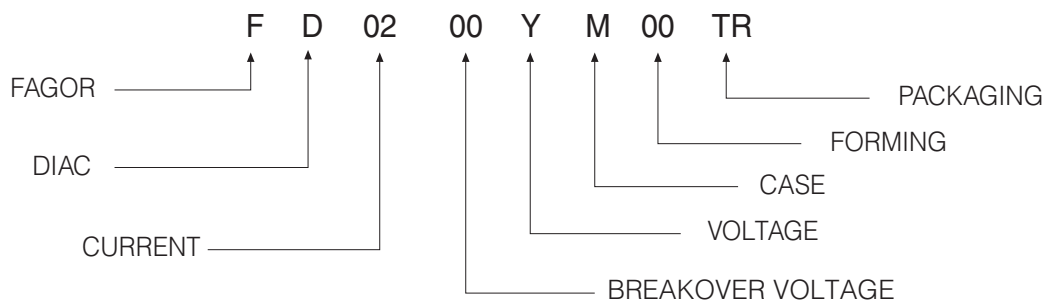
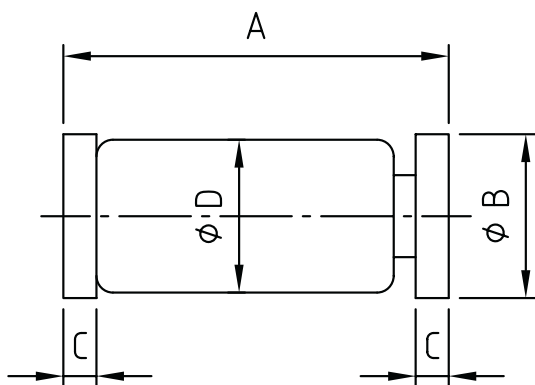


FIGURE 4: Test circuit see Figure 3. Adjust R for $I = 0.5 \text{ A}$

PART NUMBER INFORMATION

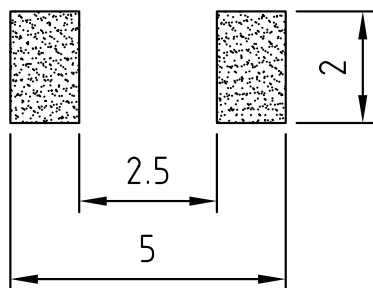


PACKAGE MECHANICAL DATA SOD80C MINIMELF



REF.	DIMENSIONS		
	Milimeters		
	Min.	Typ.	Max.
A	3.30	3.50	3.70
B	1.46	1.50	1.54
C	0.30	0.35	0.40
D	1.37	1.40	1.43

FOOTPRINT



NOTE: LIMITING VALUES AND LIFE SUPPORT APPLICATIONS (SEE WEB PAGE).