

## DIAC

<p>Dimensions in mm.</p> <p>DO-35 Glass Axial Package</p> <p>Mounting instructions</p> <ol style="list-style-type: none"> <li>1. Min. distance from body to soldering point, 4 mm.</li> <li>2. Max. solder temperature, 250 °C.</li> <li>3. Max. soldering time, 3.5 sec.</li> <li>4. Do not bend lead at a point closer than 2 mm. to the body.</li> </ol>	<ul style="list-style-type: none"> <li>• Silicon bi-directional trigger device intended for use in thyristor (SCR and TRIAC) trigger circuits, energy saving lighting circuits and other switching functions.</li> </ul> <p>BREAKOVER VOLTAGE      ON-STATE CURRENT 32 V                              2.0 Amps</p> <p><b>SPECIAL FEATURES:</b></p> <ul style="list-style-type: none"> <li>• Low breakover current:</li> <li>• Excellent symmetry.</li> <li>• Very low leakage current.</li> </ul>
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MARKING CODE

**FD0230YR**

## Absolute Maximum Ratings, according to IEC publication No. 134

	PARAMETER	CONDITIONS	Min.	Typ.	Max.	Unit
$P_{tot}$	Total Power Dissipation on printed circuit (L = 10mm)	$T_a = 65^\circ\text{C}$			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	°C
$T_j$	Operating Junction Temperature		-40		+125	°C
$T_{sld}$	Soldering Temperature	$10 \leq \text{max.}$			260	°C

## Thermal Resistance

	PARAMETER	CONDITIONS	Min.	Typ.	Max.	Unit
$R_{th(j-a)}$	Junction to Ambient				400	°C/W
$R_{th(j-l)}$	Junction to leads				150	°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)		1.5		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

\*\* Connected in parallel with the devices.



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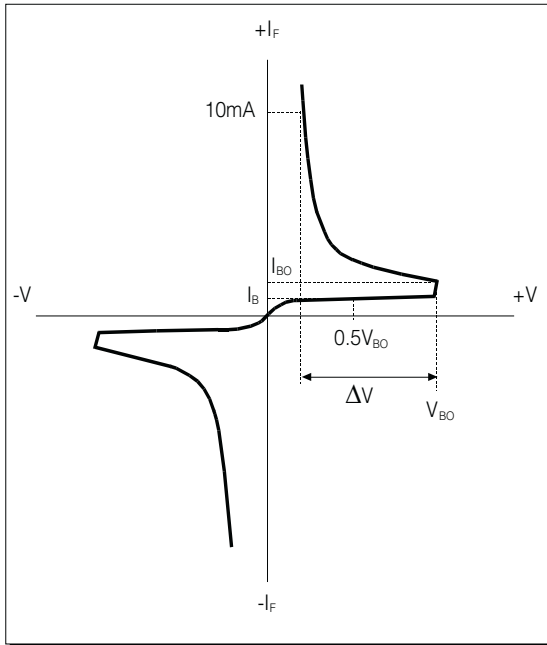


FIGURE 1: Current-Voltage Characteristics

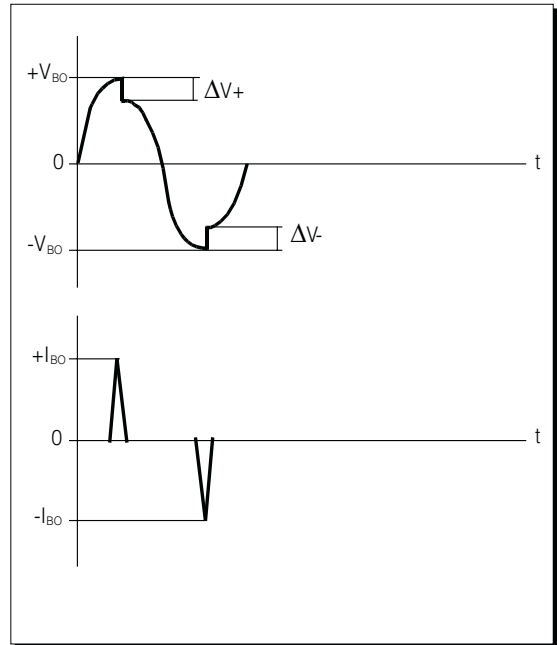


FIGURE 2

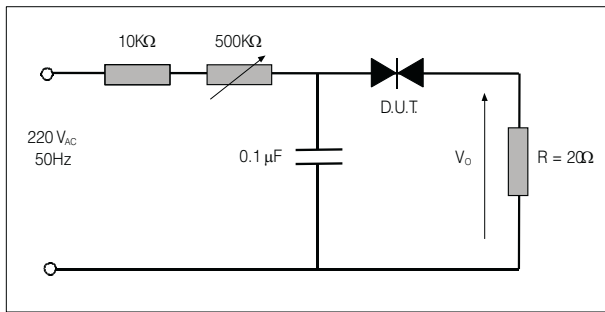


FIGURE 3: Test Circuit for Output Voltage.

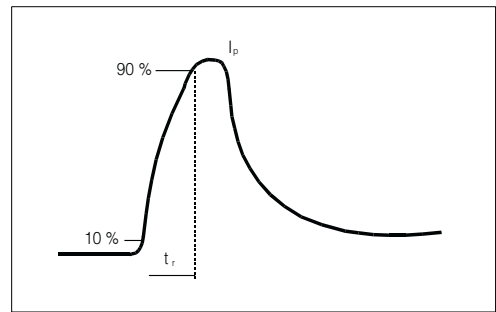


FIGURE 4: Test circuit see Figure 3. Adjust R for  $I_p = 0.5 A$

**PART NUMBER INFORMATION**

