



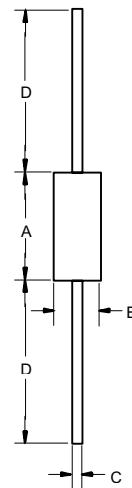
Micro Commercial Components



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**DB3TG**

**SILICON  
BIDIRECTIONAL  
DIAC**

**DO-35G**

## Features

- The three layer, two terminal, axial lead, hermetically sealed diacs are designed specifically for triggering thyristors.
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Moisture Sensitivity: Level 1 per J-STD-020C
- Intended for use in thyristors phase control , circuits for lamp dimming, universal motor speed control ,and heat control.

## Maximum Ratings

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +125°C
- Thermal Resistance Junction to Lead: 167°C/W
- Thermal Resistance Junction to Ambient: 400°C/W

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Power dissipation on Printed Circuit (l=10mm)	$P_C$	150mW	$T_A=65^\circ\text{C}$
Repetitive Peak on-state Current	$I_{TRM}$	2.0A	$t_p=10\mu\text{s}, f=120\text{Hz}$
Breakover Voltage	$V_{BO}$	Min Typ Max 30 32 34V	$C=22\text{nF}$ (Note 3)
Breakover Voltage Symmetry	$ +V_{BO} $ $- -V_{BO} $	$\pm 2\text{V}$	$C=22\text{nF}$ (Note 3)
Output Voltage(Note 2)	$V_{o(min)}$	5V	
Dynamic breakover voltage ( N o t e 2 )	$\Delta V$	9V(Min)	$V_{BO}$ and $V_F$ at 10mA
Breakover Current(Note 2)	$I_{BO(max)}$	15 $\mu\text{A}$	$C=22\text{nF}$
Rise Time(Note 2)	$T_r$	2 $\mu\text{s}$ (max)	
Leakage Current(Note 2)	$I_{B(max)}$	10 $\mu\text{A}$	$V_B=0.5V_{BO(max)}$

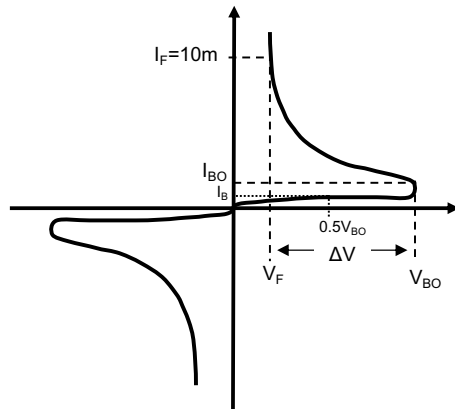
Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(C)-I.

2. Electrical characteristics applicable in both forward and reverse directions.

3. Connected in parallel with the devices.

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	---	.150	---	3.8	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.083	---	27.50	---	

## Typical Performance Characteristics



$V_{BO}$  : Break-Over Voltage  
 $I_{BO}$  : Break-Over Current  
 $\Delta V$  : Dynamic Breakover Voltage  
 $I_B$  : Leakage Current at  $V_B = 0.5 \cdot V_{BO}$   
 $V_F$  : Voltage at Current  $I_F = 10\text{mA}$

Diagram 1 : Test circuit

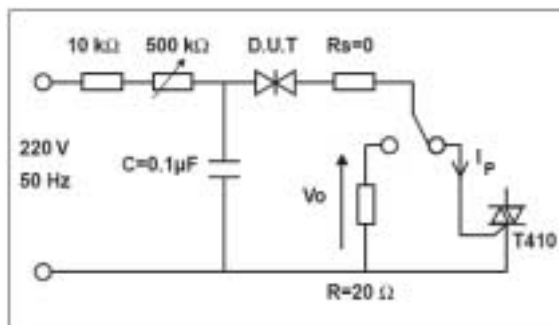


Figure 1. Admissible Power Dissipation Curve

Figure 2. Relative Variation of VBO versus Junction Temperature

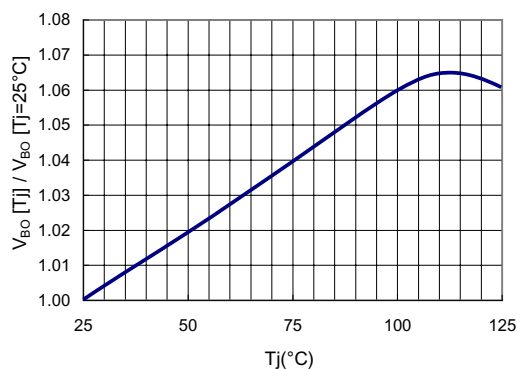
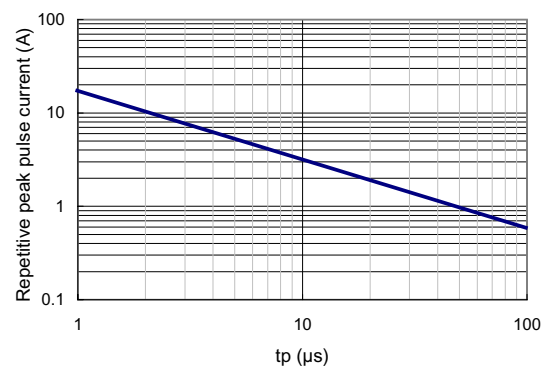


Figure 3. Repetitive Peak Pulse Current versus Pulse Duration (maximum values)





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## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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