



Micro Commercial Components

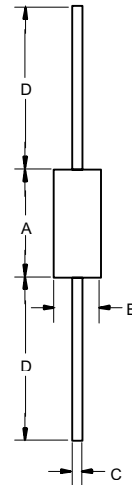


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# DB3TG

## 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

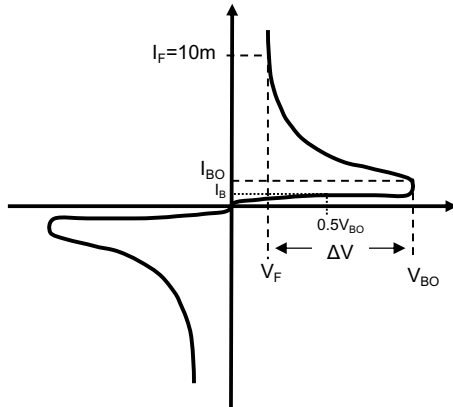
Electrical Characteristics @25°C Unless Otherwise Specified

Power dissipation on Printed Circuit(l=10mm)	P <sub>C</sub>	150mW	T <sub>A</sub> =65°C
Repetitive Peak on-state Current	I <sub>TRM</sub>	2.0A	t <sub>p</sub> =10us,f=120Hz
Breakover Voltage	V <sub>BO</sub>	Min Typ Max 30 32 34V	C=22nF(Note 3)
Breakover Voltage Symmetry	+V <sub>BO</sub>   - -V <sub>BO</sub>	±2V	C=22nF(Note 3)
Output Voltage(Note 2)	V <sub>o(min)</sub>	5V	
Dynamic breakover voltage ( N o t e 2 )	Δ V	9V(Min)	V <sub>BO</sub> and V <sub>F</sub> at 10mA
Breakover Current(Note 2)	I <sub>BO(max)</sub>	15μA	C=22nF
Rise Time(Note 2)	T <sub>r</sub>	2us(max)	
Leakage Current(Note 2)	I <sub>B(max)</sub>	10μA	V <sub>B</sub> =0.5V <sub>BO(max)</sub>

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

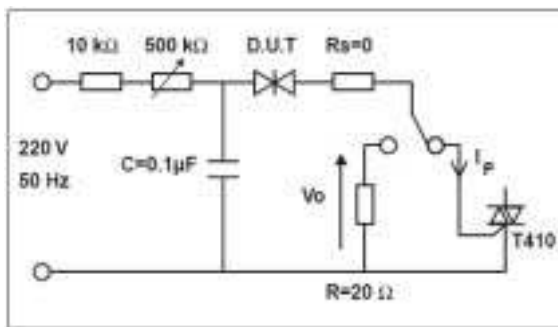
- Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(C)-I.  
 2. Electrical characteristics applicable in both forward and reverse directions.  
 3. Connected in parallel with the devices.

**Typical Performance Characteristics**

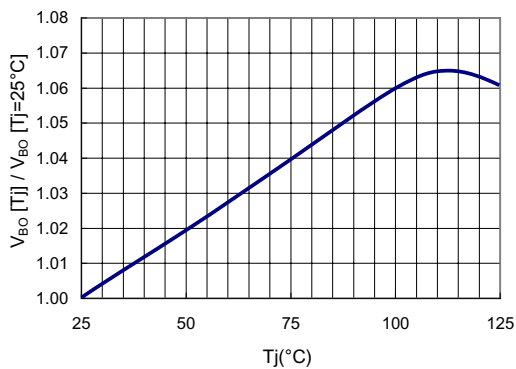


- $V_{BO}$  : Break-Over Voltage
- $I_{BO}$  : Break-Over Current
- $\Delta V$  : Dynamic Breakover Voltage
- $I_B$  : Leakage Current at  $V_B=0.5 \cdot V_{BO}$
- $V_F$  : Voltage at Current  $I_F=10mA$

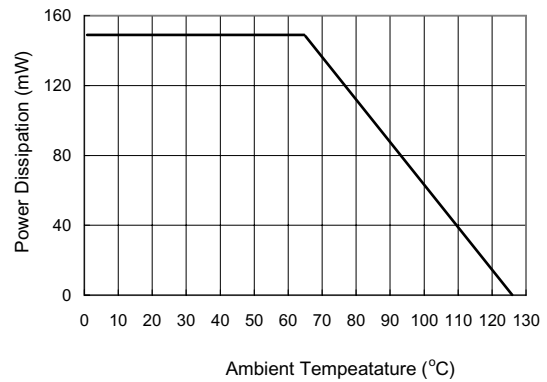
**Diagram 1 : Test circuit**



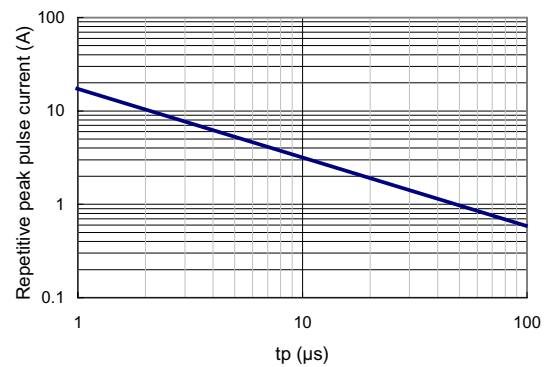
**Figure 2. Relative Variation of VBO versus Junction Temperature**



**Figure 1. Admissible Power Dissipation Curve**



**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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