

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Micro Commercial Components** 



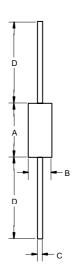
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# **DB3TG**

# SILICON BIDIRECTIONAL DIAC

DO-35G



DIMENSIONS							
	INCHES		MM				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α		.150		3.8			
В		.079		2.00			
C	-	.020	-	.52			
D	1.083	-	27.50				
•			•				

## **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 thyrisitors 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

Bectrical Characteristics @ 25°C Unless Otherwise Specified

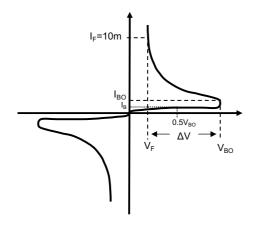
Power dissipation on Printed Circuit(I=10mm)	P <sub>C</sub>	150mW	T <sub>A</sub> =65°C
Repetitive Peak on-state Current	I <sub>TRM</sub>	2.0A	t <sub>p</sub> =10us,f=120Hz
Breakover Voltage	V <sub>BO</sub>	Min Typ Max 30 32 34V	C=22nF(Note 3)
Breakover Voltage Symmetry	+V <sub>BO</sub>   - -V <sub>BO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

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.



# **Typical Performance Characteristics**



 $\begin{array}{lll} \textbf{V}_{BO} & : Break-Over \ Voltage \\ \textbf{I}_{BO} & : Break-Over \ Current \\ \textbf{\Delta V} & : Dynamic \ Breakover \ Voltage \\ \textbf{I}_{B} & : Leakage \ Current \ at \ V_{B} = 0.5^*V_{BO} \\ \textbf{V}_{F} & : Voltage \ at \ Current \ I_{F} = 10 mA \\ \end{array}$ 

Diagram 1: Test circuit

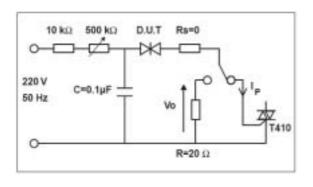


Figure 1. Admissible Power Dissipation Curve

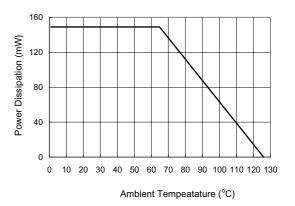


Figure 2. Relative Variation of VBO versus Junction Temperature

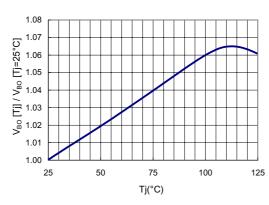
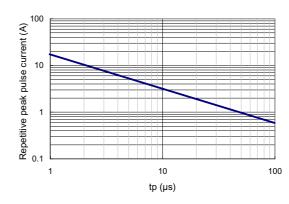


Figure 3. Repetitive Peak Pulse Current versus Pulse Duration (maximum values)





#### **Micro Commercial Components**

## 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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