



Micro Commercial Components

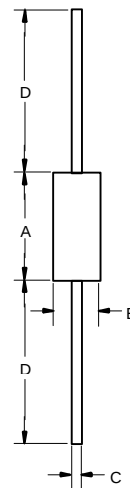


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DB3/DC34 AND DB4

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
- These diacs are intended for use in thyristors phase control , circuits for lamp dimming, universal motor speed control ,and heat control. Type number is marked.

Maximum Ratings

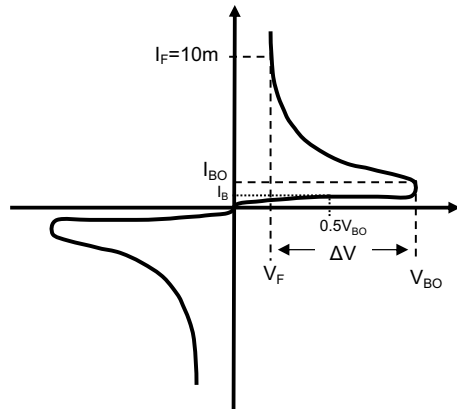
- Operating Temperature: -40°C to +125°C
 - Storage Temperature: -40°C to +125°C
 - Thermal Resistance Junction to Lead: 167°C/W
 - Thermal Resistance Junction to Ambient: 400°C/W
- Electrical Characteristics @ 25°C Unless Otherwise Specified

Power dissipation on Printed Circuit (l=10mm)	P_C	150mW	$T_A=65^\circ\text{C}$
Repetitive Peak on-state Current DB3,DC34,DB4	I_{TRM}	2.0A	$t_p=10\mu\text{s}$, $f=100\text{HZ}$
Breakover Voltage DB3 DC34 DB4	V_{BO}	Min Typ Max 28 32 36V 30 34 38V 35 40 45V	$C=22\text{nF}$ (Note 3)
Dynamic Breakover Voltage(Note 2)	ΔV	5V(Min.)	V_{BO} and V_F at 10mA
Breakover Voltage Symmetry DB3, DC34, DB4	$ +V_{BO} $ $ -V_{BO} $	$\pm 3V$	$C=22\text{nF}$ (Note 3)
Output Voltage(Note 2)	$V_{o(\text{min})}$	5V	
Breakover Current(Note 2)	$I_{BO(\text{max})}$	100 μA	$C=22\text{nF}$
Rise Time(Note 2)	T_r	1.5 μs	
Leakage Current(Note 2)	$I_{B(\text{max})}$	10 μA	$V_B=0.5V_{BO(\text{max})}$

- 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
 ΔV : 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

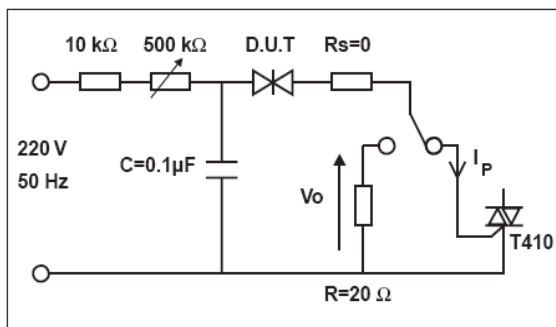


Figure 1. Admissible Power Dissipation Curve

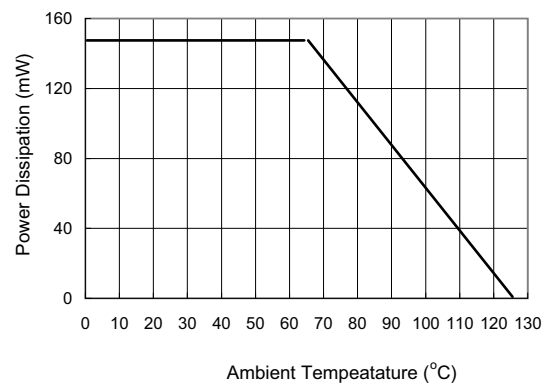


Figure 2. Relative Variation of VBO versus Junction Temperature

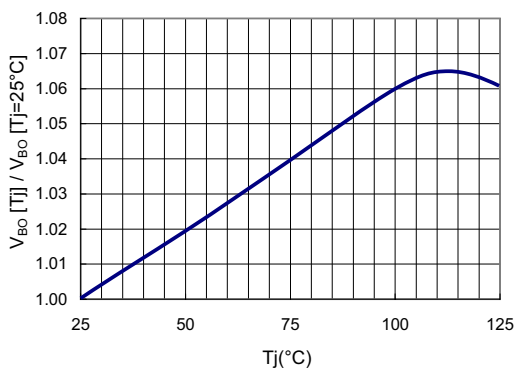
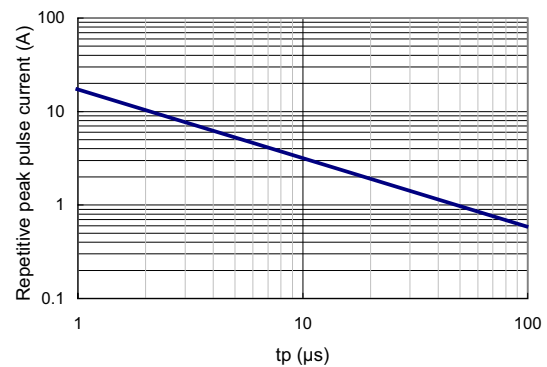


Figure 3. Repetitive Peak Pulse Current versus Pulse Duration (maximum values)



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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