

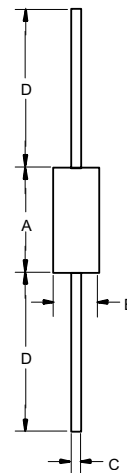


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DB3A

SILICON BIDIRECTIONAL DIAC

A-405



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	---	.024	---	.60	
D	1.000	---	25.40	---	

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 RoHS Compliant. See ordering information)
- High temperature soldering guaranteed
- 250 C/10 seconds, 0.375" (9.5mm) lead length,
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Temperature: -40°C to +110°C
- Storage Temperature: -40°C to +125°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Power dissipation on Printed Circuit(I=10mm)	P_C	150mW	$T_A=65^\circ\text{C}$
Repetitive Peak on-state Current DB3,DC34,DB4 DB6	I_{TRM}	2.0A 16A	$t_p=10\mu\text{s}, f=100\text{Hz}$
Breakover Voltage	V_{BO}	Min Typ Max 28 32 36V	$C=22\text{nF}$ (Note 3)
Breakover Voltage Symmetry	$ +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)	$I_{BO(\text{max})}$	100uA	$C=22\text{nF}$
Rise Time(Note 2)	T_r	1.5us	
Leakage Current(Note 2)	$I_{B(\text{max})}$	10uA	$V_B=0.5V_{BO(\text{max})}$

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

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

3. Connected in parallel with the devices.



DB3A

DIAGRAM 1: CURRENT-VOLTAGE CHARACTERISTICS

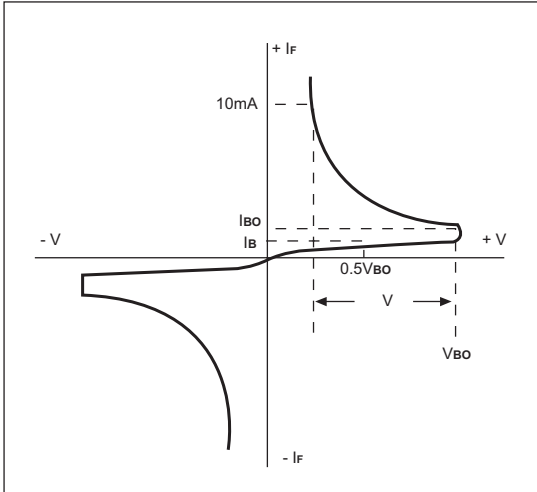


DIAGRAM 2: TEST CIRCUIT OUTPUT VOLTAGE

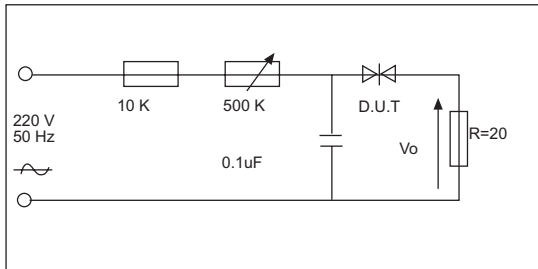


DIAGRAM 3: TEST CIRCUIT SEE DIAGRAM 2. ADJUST R FOR $I_f=0.5A$

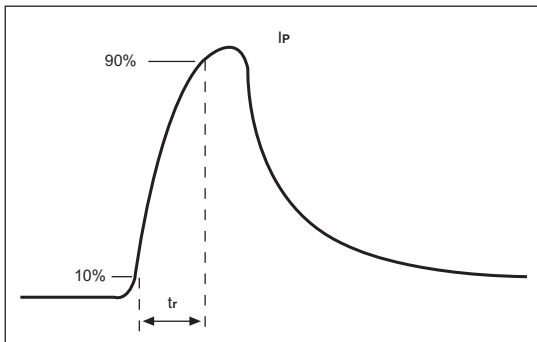


FIG. 1- POWER DISSIPATION VERSUS AMBIENT TEMPERATURE (MAXIMUM VALUES)

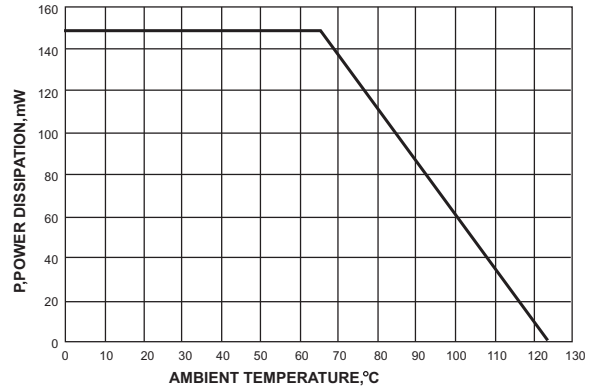


FIG. 2- PEAK PULSE CURRENT VERSUS PULSE DURATION (MAXIMUM VALUES)

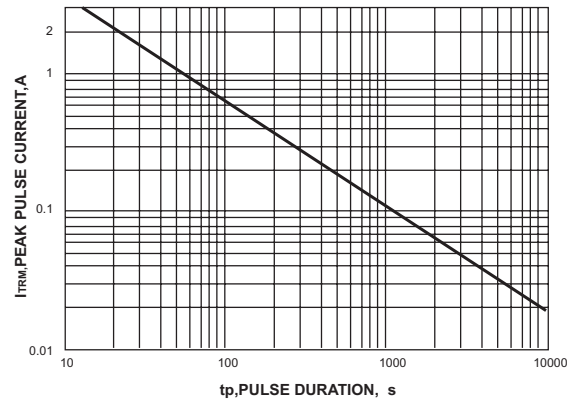


FIG. 3- RELATIVE VARIATION OF V_{Bo} VERSUS JUNCTION TEMPERATURE (TYPICAL VALUES)

