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DB3/DC34 AND DB4/DB6

SILICON BIDIRECTIONAL DIAC

Features

- The three layer, two terminal, axial lead, hermetically sealed diacs are designed specifically for triggering thyristors.
- They demonstrate low breakover current at breakover voltage as they withstand peak pulse current, The breakover symmetry is within three volts(DB3,DC34,DB4) or four volts(DB6).
- These diacs are intended for use in thyrisitors phase control , circuits for lamp dimming, universal motor speed control ,and heat control.

Maximum Ratings

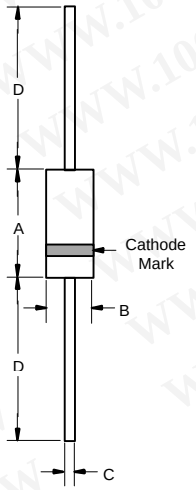
- Operating Temperature: -40°C to +110°C
- Storage Temperature: -40°C to +125°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Power dissipation on Printed Circuit(l=10mm)	P_C	150mW	T_A=50°C
Repetitive Peak on-state Current DB3,DC34,DB4 DB6	I_{TRM}	2.0A 16A	t_p=10us,f=100Hz
Breakover Voltage DB3 DC34 DB4 DB6	V_{BO}	Min Typ Max 28 32 36V 30 34 38V 35 40 45V 56 60 70V	C=22nF(Note 2)
Breakover Voltage Symmetry DB3, DC34, DB4 DB6	$\|+V_{BO}\|$ $-\|-V_{BO}\|$	±3V ±4V	C=22nF(Note 2)
Output Voltage(Note 1)	$V_{o(min)}$	5V	
Breakover Current(Note 1)	$I_{BO(max)}$	100uA	C=22nF
Rise Time(Note 1)	T_r	1.5us	
Leakage Current(Note 1)	$I_{B(max)}$	10uA	V_B=0.5$V_{BO(max)}$

NOTES:1.Electrical characteristics applicable in both forward and reverse directions.
2.Connected in parallel with the devices.

DO-35



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

RATINGS AND CHARACTERISTIC CURVES DB3/DC34/DB4/DB6

DIAGRAM 1: Current-voltage characteristics

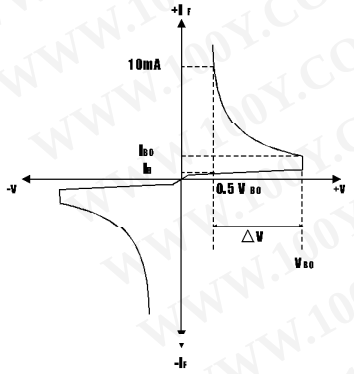


DIAGRAM 2: Test circuit for output voltage

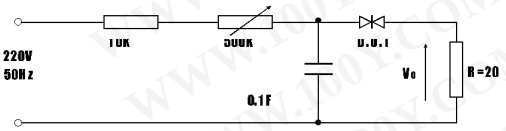


DIAGRAM 3: Test circuit see diagram2 adjust R for I=0.5A

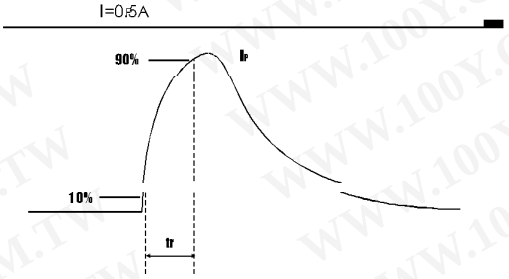


FIG.1-Power dissipation versus ambient temperature (maximum values)

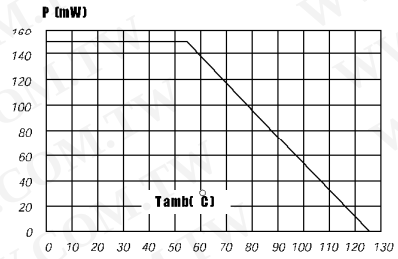


FIG.2-Relative variation of VBO versus junction temperature(typical values)

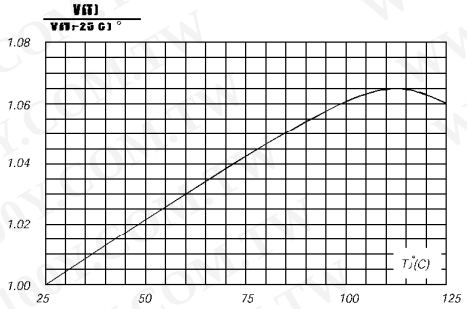


FIG.3-Peak pulse current versus pulse duration (maximum values)