

DB3 THRU DB6

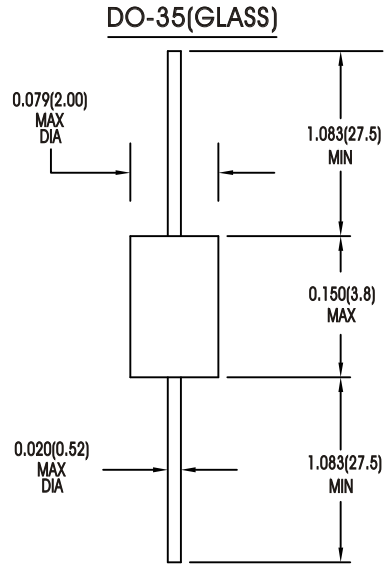
SILICON BIDIRECTIONAL DIAC

FEATURES:

- The three layer, two terminal, axial lead, hermetically sealed diodes 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, DB6) or four volts (DB6). These diodes are intended for use in thyristors phase control, circuits for lamp dimming, universal motor speed control, and heat control.
- (DB3, DC34, DB4, DB6) are bi-directional triggered diode designed to cooperate in conjunction with Triacs and SCR's

MECHANICAL DATA

Case: DO-35 case



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	Test conditions	DB3	DC34	DB4	DB6	Units	
Breakover voltage(note 2)	V _{BO}	C=22nF(NOT 2) See diagram 1	Min	28	30	35	56	Volts
			Typ	32	34	40	60	Volts
			Max	36	38	45	70	Volts
Power Dissipation on Printed Circuit (L=10mm)	P _c	T _a =50°C	150				mW	
Repetitive Peak on-state Current	I _{TRM}	T _p =10us F=100hz	2.0		16		Amps	
Breakover voltage Symmetry	$\frac{ +V_{BO} }{ -V_{BO} }$	C=22nF(NOT 2) See diagram 1	Max	±3		±4	Volts	
Dynamic Breakover voltage(note 1)	±ΔV	ΔI=(I _{BO} to I _F =10mA) See Diagram 1	Min	5		10	Volts	
Output r voltage(note 1)	V _O	See diagram 2	Min	5			Volts	
Breakover Current(note 1)	I _{BO}	C=22nF(NOT 2)	Max	100			μA	
Rise Time(note 1)	T _r	See diagram 3	Typ	1.5			μS	
Leakage Current(note 1)	I _B	V _B =0.5 V _{BO} max See diagram 1	Max	10			μA	
Operating temperature range	T _J		-40 to +125				°C	
Storage temperature range	T _{stg}		-40 to +125				°C	

NOTES: 1. Electrical characteristics applicable in both forward and reverse directions

2. Connected in parallel with the devices

RATINGS AND CHARACTERISTIC CURVES DB3 THRU DB6

DIAGRAM 1 : Current-voltage characteristics

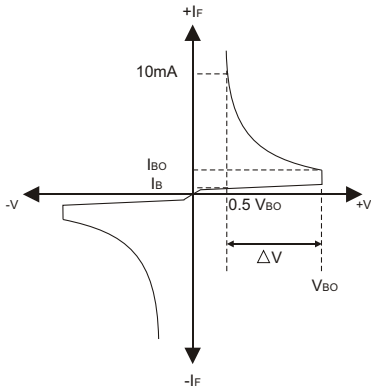


DIAGRAM 2 : Test circuit for output voltage

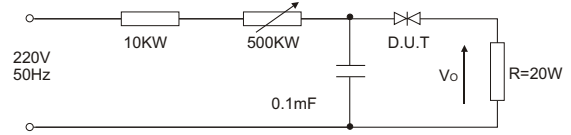


FIG.1-Power dissipation versus

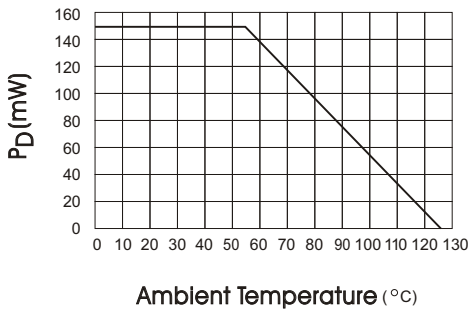


DIAGRAM 3 : Test circuit see diagram 2 adjust R for I_p=0.5A

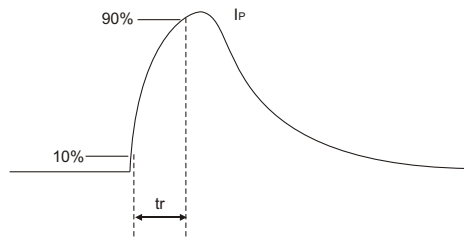


FIG.3-Peak pulse current

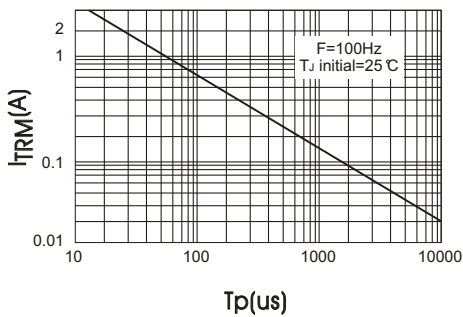


FIG.2-Typical Relative variation of V_{BO}

