



DB3, DB4, DB6

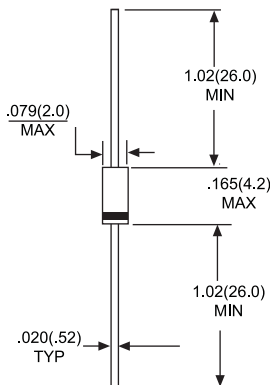
**SILICON
BIDIRECTIONAL DIACS**

POWER DISSIPATION 150 mW

FEATURES

- Three way 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, DB4) or four volts (DB6). These diacs are intended for use in thyristors phase control, circuits for lamp dimming, universal motor speed control, and heat control.
- This diode is also available in the DO-35 case.

DO-35(GLASS)



Dimensions in inches and (millimeters)

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE			UNITS
		DB3	DB4	DB6	
Power Dissipation on Printed Circuit (L=10mm) $T_A=50^\circ\text{C}$	P_c		150		mW
Repetitive Peak on-state Current $t_p=10\ \mu\text{s}$ $f=100\ \text{Hz}$	I_{TRM}		2.0		A
Storage and Operating Junction Temperature	$T_{STG/TJ}$	-40 to +125 / -40 to +110			$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	VALUE			UNITS	
			DB3	DB4	DB6		
Breakover Voltage *	V_{BO}	C=22nf ** See Diagram 1	Min	28	35	56	V
			TYP	32	40	60	
			Max	36	45	70	
Breakover Voltage Symmetry	$ +V_{BO} - V_{BO} $	C=22nf ** See Diagram 1	Max	± 3		V	
Dynamic Breakover Voltage	$I \pm \Delta V$	$\Delta I(I_{BO} \text{ to } I_F = 10\text{mA})$ See FIG1	Min	5		V	
Output Voltage *	V_O	See FIG2	Min	5		V	
Breakover Current *	I_{BO}	C=22nF **	Max	100		μA	
Rise Time *	t_r	See FIG3	Typ	1.5		μs	
Leakage Current *	I_B	$I_B = 0.5 V_{BO} \text{ max}$ See FIG 3	Max	10		μA	

NOTE: * Electrical characteristics applicable in both forward and reverse directions.

**Connected in parallel with the devices.

RATING AND CHARACTERISTIC CURVES DB3, DB4, DB6



FIG.1 - CURRENT-VOLTAGE CHARACTERISTICS

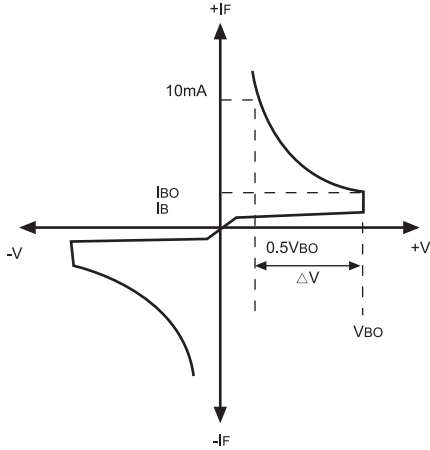


FIG.2 - TEST CIRCUIT FOR OUTPUT VOLTAGE

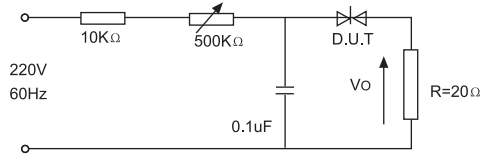


FIG.3-TEST CIRCUIT SEE GIF.2 ADJUSTR
FOR $I_p=0.5A$

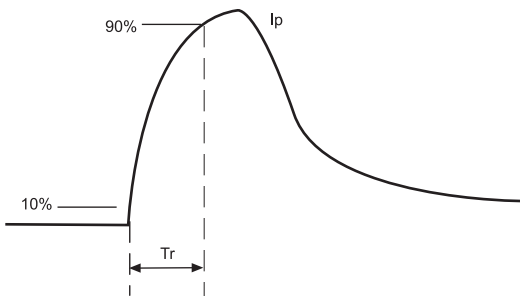


FIG.2 - TEST CIRCUIT FOR OUTPUT VOLTAGE

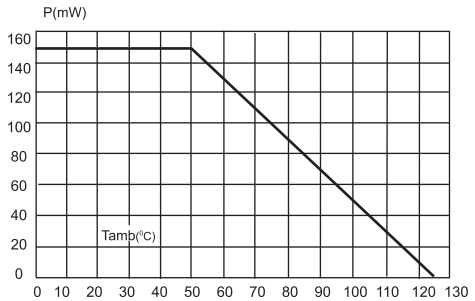


FIG.5 - RELATIVE VARIATION OF VBO VERSUS
JUNCTION TEMPERATURE(TYPICAL VALUES)

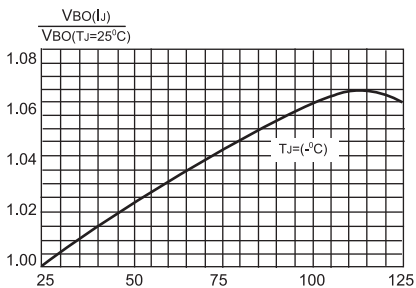


FIG.6 - PEAK PULSE CURRENT VERSUS PULSE
DURATION(MAXIMUM VALUES)

