

SURFACE MOUNT RECTIFIERS

V_{BO} : 28 -- 45 V

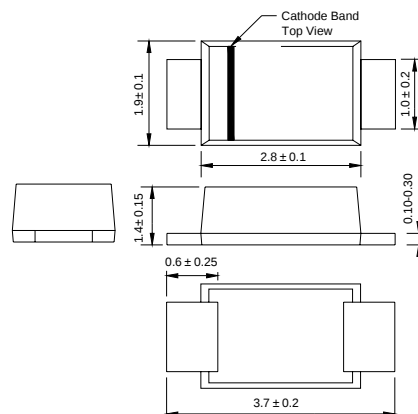
FEATURES

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

MECHANICAL DATA

Case:JEDEC SOD-123FL,molded plastic over passivated chip
Weight: 0.0008 ounces, 0.022 gram

SOD-123FL



Dimensions in millimeters

ABSOLUTE RATINGS

Parameters		SODDB3	SODDB4	UNITS
Device marking code		DB	DC	
Power dissipation on printed circuit (L=10mm) $T_A = 50$	P_c	150		mW
Repetitive peak on-state current $t_p=20\mu s, f=120Hz$	I_{TRM}	2.0		A
Operating junction temperature	T_j	- 40 --- + 125		
Storage temperature	T_{STG}	- 40 --- + 125		

ELECTRICAL CHARACTERISTICS

Parameters		Test Conditions		SODDB3	SODDB4	UNITS
Breakover voltage *	V_{BO}	C=22nF** See FIG.1	Min	28	35	V
			Typ	32	40	
			Max	36	45	
Breakover voltage symmetry	$ +V_{BO} $ - $ -V_{BO} $	C=22nF** See FIG.1	Max	± 3.0		V
Dynamic breakover voltage *	$ \pm \Delta V $	$\Delta I = (I_{BO} \rightarrow I_F = 10mA)$ See FIG.1	Min	5.0		V
Output voltage *	V_O	See FIG.2	Min	5.0		V
Breakover current *	I_{BO}	C=22nF**	Max	100		μA
Rise time *	t_r	See FIG.3	Typ	1.5		μs
Leakage current *	I_R	$V_R = 0.5V_{BO}$	Max	10		μA

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

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** Connected in parallel with the devices.

FIG.1--VOLTAGE-CURRENT CHARACTERISTIC CURVE

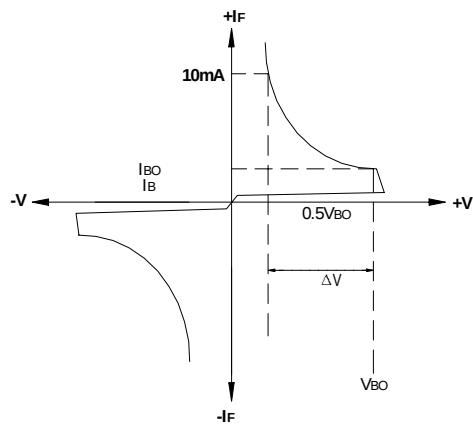


FIG.2--TEST CIRCUIT FOR OUTPUT VOLTAGE

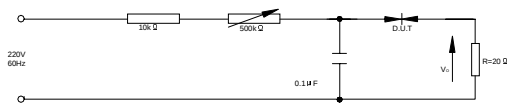


FIG.3-- TEST CIRCUIT SEE FIG.2 ADJUST R FOR $I_P=0.5A$

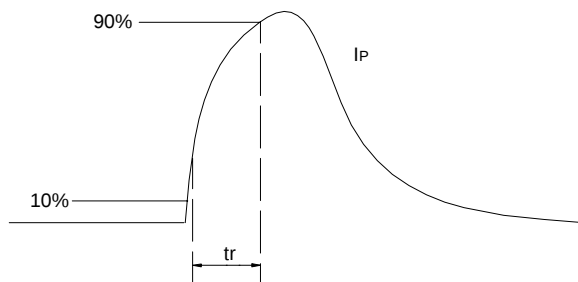


FIG.4--POWER DISSIPATION VERSUS AMBIENT TEMPERATURE (MAXIMUM VALUES)

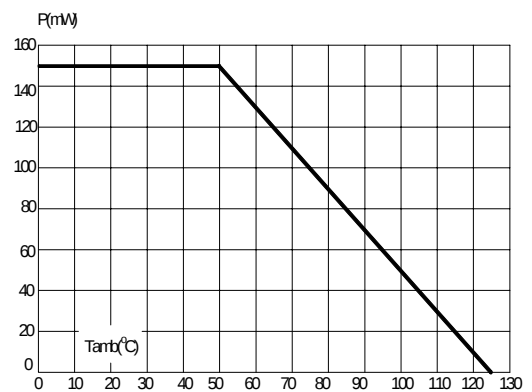


FIG.5--RELATIVE VARIATION OF V_{BO} VERSUS JUNCTION TEMPERATURE(TYPICAL VALUES)

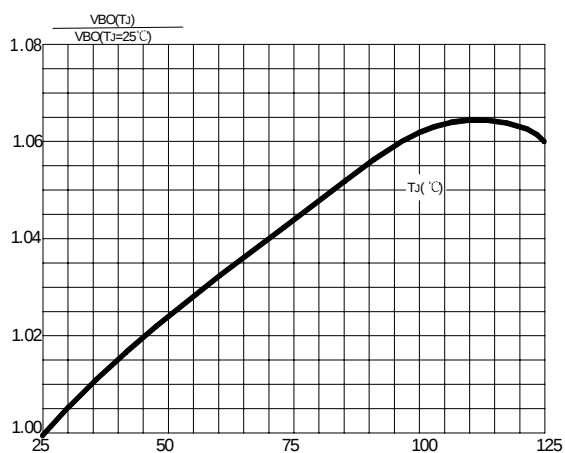


FIG.6--PEAK PULSEE CURRENT VERENT VERSUS PULSE DURATION(MAXIMUM VALUES)

