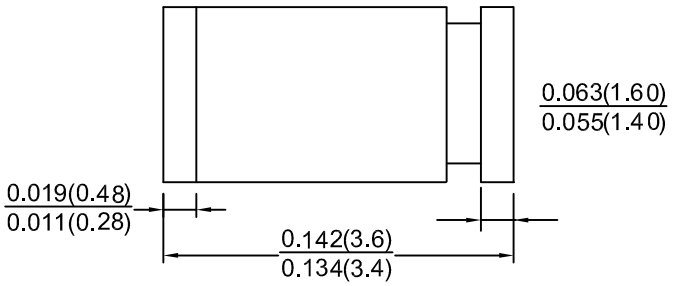
LLDB3 THRU LLDB6

SILICON BIDIRECTIONAL DIAC

MELF / DO-213A A

FEATURES:

- The three layer,two terminal,axial load, hermetically sealed diaces are designed specifically for triggering thyristors. They demonstrate low breakover current at breakover voltage as they withstand peak pulse current, The breakover symmetry is whiin three volts (LLDB3,LLDC34,LLDB4,LLDB6) or four volts(LLDB6) . These diacs are intended for use in thyrisitors phase control, circuits for lamp dimming,universal motor speed control, and heat control.
- (LLDB3,LLDC34,LLDB4,LLDB6) are bi-directional trigged diode designed to coperate in conjunction with Triacs and SCR 's



1st band denotes type positive and (cathode)

MECHANICAL DATA

Case: Mini-MELF glass case(SOD-80)

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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		LLDB3	LLDC34	LLDB4	LLDB6	Units
Breakover voltage(note 2)	VBO	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	Ta=50℃		150				mW
Repetitive Peak on -state Current	I_{TRM}	Tp=10us F=100hz		2.0			16	Amps
Breakover voltage Symmetry	$\lvert +VBO \rvert - \lvert -VBO \rvert$	C=22nF(NOT 2) See diagram 1	Max	±3			±4	Volts
Dynamic Breakover voltage(note 1)	$\lvert \pm\triangle V \rvert$	$\triangle I = (I_{BO}$ to $I_F = 10mA)$ See Diagrqm 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)	Tr	See diagram 3	Typ	1.5				μs
Leakage Current(note 1)	I_B	$V_B = 0.5\ V_{BO}$ max See diagggram 1	Max	10				μA
Operating temperature range	TJ			-40 to+125				℃
Storage temperature range	Tstg			-40 to+125				℃

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

DIAGRAM 1 : Current-voltage characteristics

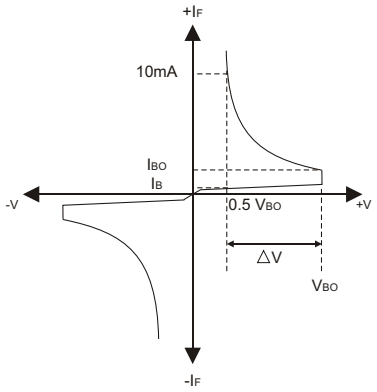


DIAGRAM 2 : Test circuit for output voltage

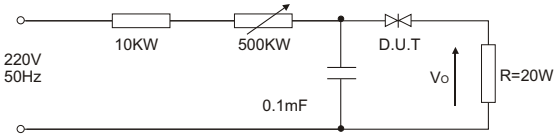


FIG.1-Power dissipation versus

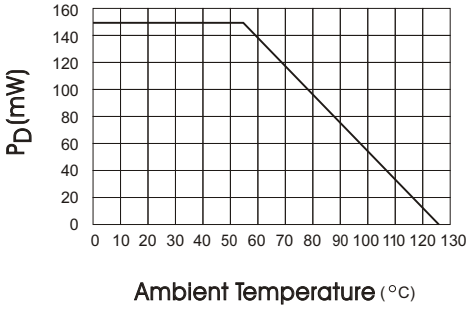


DIAGRAM 3 : Test circuit see diagram 2 adjust R for Ip=0.5A

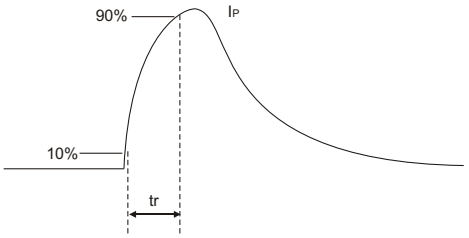


FIG.3-Peak pulse current

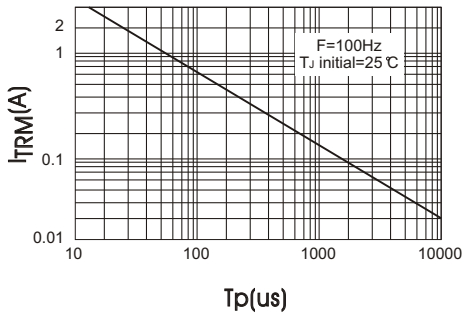


FIG.2-Typical Relative variation of VBO