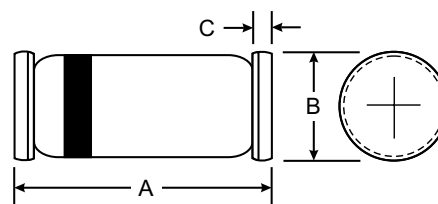


Features

- The glass passivated, 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 four volts with a typical breakover voltage of LLDB3 32 V, LLDB4 40 V. These diacs are intended for use in thyristor phase control, circuits for lamp-dimming, universal-motor speed controls, and heat controls.



Mechanical Data

- Case: SOD-80/LL34, Glass
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.05 grams (approx.)



LL34/ SOD-80		
Dim	Min	Max
A	3.30	3.70
B	1.30	1.60
C	0.28	0.50
All Dimensions in mm		

Absolute Ratings

Characteristic	Value	Symbol	Unit
Power Dissipation on Printed Circuit(L=10mm) $T_A=50^\circ\text{C}$	150	Pc	mW
Repetitive Peak on-state Current $t_p=10\mu\text{s}$ $f=100\text{Hz}$	2.0 2.0 2.0 1.6	I _{TRM}	A
Storage and Operating Junction Temperature	-40 to +125/-40 to +110	T _{STG/TJ}	°C

Electrical Characteristics

Characteristic	Condition	Value	Symbol	Unit				
					LLDB3	LLDC34	LLDB4	LLDB6
Breakover Voltage (Note 2)	C=22nF(Note 2) See diagram 1	Min	28	30	35	56	V _{BO}	V
		Typ	32	34	40	60		
		Max	36	38	45	70		
Breakover Voltage Symmetry	C=22nF(Note 2) See diagram 1	Max	±3		±4		$\frac{ +V_{BO} }{ -V_{BO} }$	V
Dynamic Breakover Voltage (Note1)	$\Delta I=I_{BO}$ to $I_F=10\text{mA}$ See Diagram 1	Min	5		10		$ \pm \Delta V $	V
Output Voltage (Note 1)	See Diagram 2	Min	5				V _O	V
Breakover Current (Note1)	C=22nF(Note 2)	Max	100				I _{BO}	μA
Rise Time (Note1)	See Diagram 3	Typ	1.5				t _r	μs
Leakage Current (Note1)	V _B =0.5 V _{BO} max see diagram 1	Max	10				I _B	μA

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

DIAGRAM 1: Current-voltage characteristics

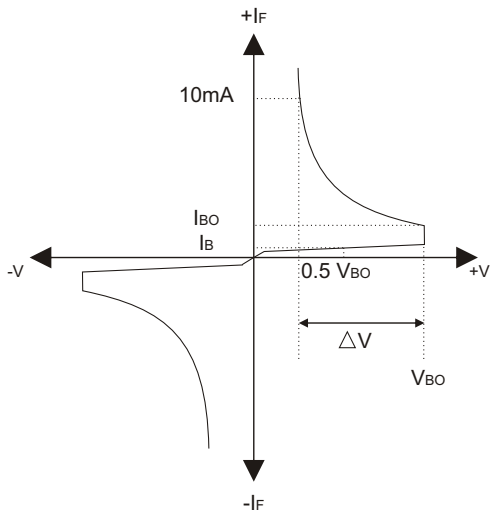


FIG.1-Power dissipation versus ambient temperature (maximum values)

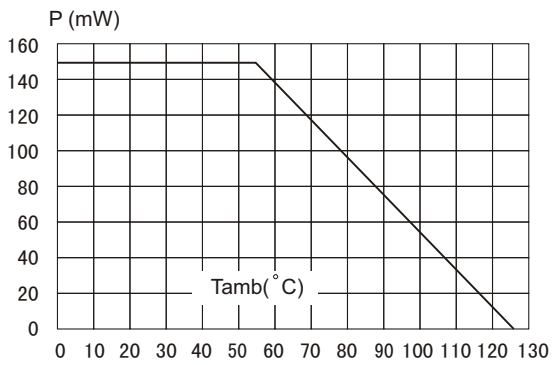


FIG.3-Peak pulse current versus pulse duration (maximum values)

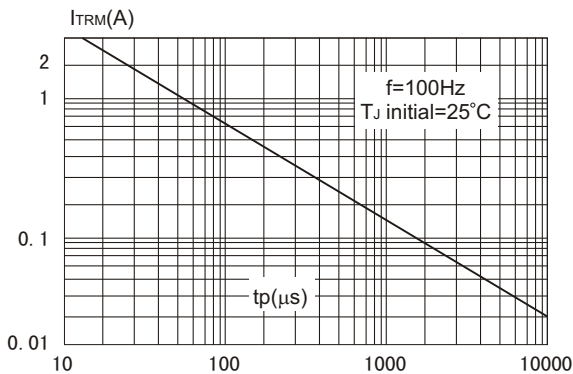


DIAGRAM 2: Test circuit for output voltage

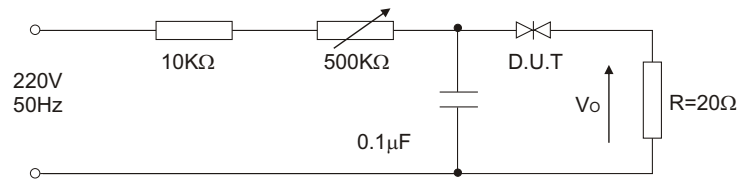


DIAGRAM 3: Test circuit see diagram2 adjust R for $I_P=0.5\text{A}$

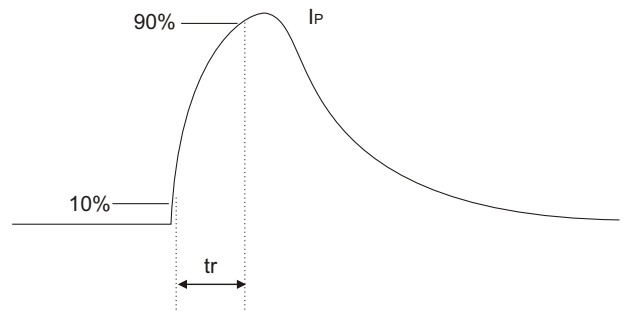


FIG.2-Relative variation of V_{BO} versus junction temperature (typical values)

