



**DC COMPONENTS CO., LTD.**

RECTIFIER SPECIALISTS

**DLDB3  
THRU  
DLDB6**

**TECHNICAL SPECIFICATIONS OF BIDIRECTIONAL DIODE THYRISTORS (DIACS)**

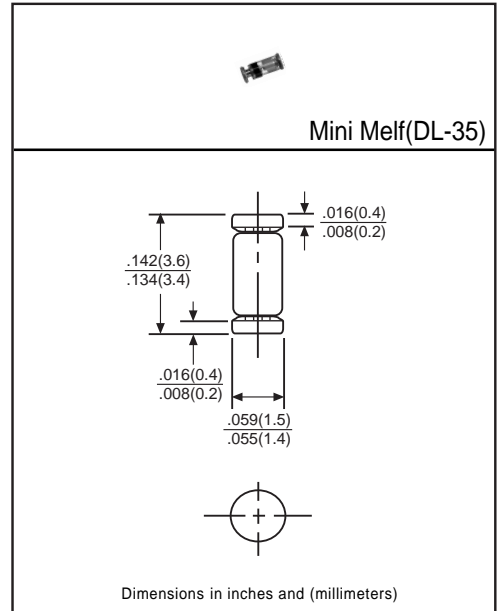
**FEATURES**

- \* Glass passivated three-layer for triggering thyristors.
- \* Low breakover current at breakover voltage.
- \* For use in thyristor phase-control circuit for lampdimming, universal-motor speed control and heat controls.

**MECHANICAL DATA**

- \* Case: Glass case Minimelf DL-35
- \* Terminals: MIL-STD-202E, Method 208 guaranteed
- \* Mounting position: Any
- \* Weight: 0.05 gram Approx.

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
 Rating at 25°C ambient temperature unless otherwise specified  
 Single phase, half wave 60 HZ, resistive or inductive load.  
 For capacitive load, derate current by 20%.



**ABSOLUTE RATINGS(LIMITING VALUES)**

PARAMETERS	SYMBOL	VALUE				UNITS
		DLDB3	DLDC34	DLDB4	DLDB6	
Power Dissipation on Printed Circuit (L=10mm) T <sub>A</sub> =25°C	P <sub>c</sub>	150				mW
Repetitive Peak on-state Current t <sub>p</sub> =10μs f=100Hz	I <sub>TRM</sub>	2.0		1.6		mA
Maximum Lead Temperature for Soldering	T <sub>STG</sub> /T <sub>J</sub>	-40 to +125				°C

**ELECTRICAL CHARACTERISTICS**

PARAMETERS	TEST CONDITIONS	SYMBOL	VALUE				UNITS
			DLDB3	DLDC34	DLDB4	DLDB6	
Breakover Voltage (Note 2)	C=22nF (Note 2) See FIG. 1	Min	28	30	35	56	Volts
		Typ	32	34	40	60	
		Max	36	38	45	70	
Breakover Voltage Symmetry	C=22nF (Note 2) See FIG. 1	Max	A 3		A 4		Volts
Dynamic Breakback Voltage (Note 1)	ΔI=(I <sub>BO</sub> to I <sub>F</sub> =10mA) See FIG. 1	Min	5		10		Volts
Output Voltage (Note 1)	See FIG. 2	Min	5				Volts
Breakover Current (Note 1)	C=22nF (Note 2)	Max	100				μA
Rise time (Note 1)	See FIG. 3	Typ	1.5				μs
Leakage Current (Note 1)	V <sub>B</sub> =0.5 V <sub>BO</sub> max See FIG. 1	Max	10				μA

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

# RATING AND CHARACTERISTIC CURVES (DLDB3 THRU DLDB6)

FIG.1 - VOLTAGE-CURRENT CHARACTERISTICS

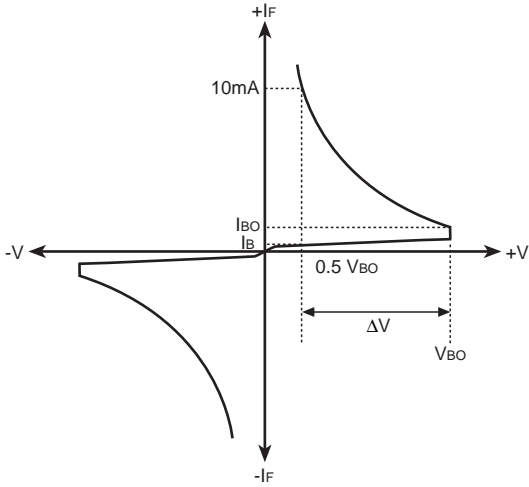


FIG.2 - TEST CIRCUIT FOR OUTPUT VOLTAGE

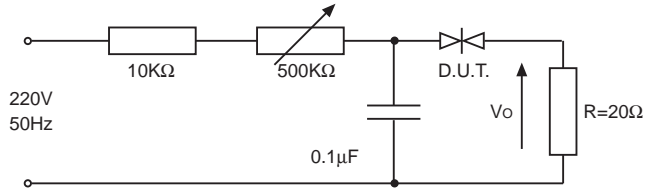


FIG.3 - TEST CIRCUIT SEE FIG.2 ADJUST R FOR  $I_P=0.5\text{A}$

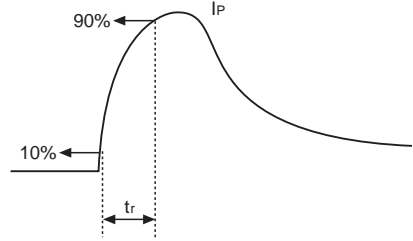


FIG.4 - REPETITIVE PEAK ON-STATE CURRENT VS PULSE DURATION

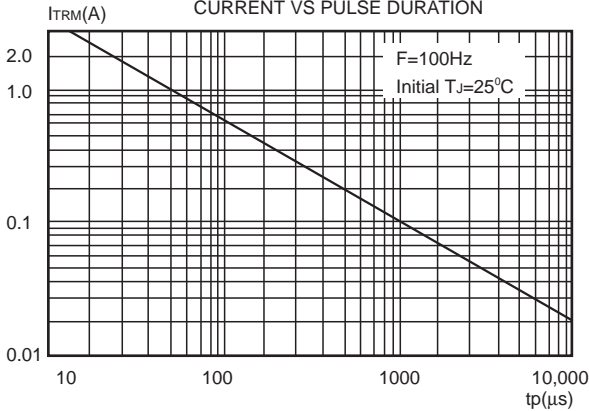
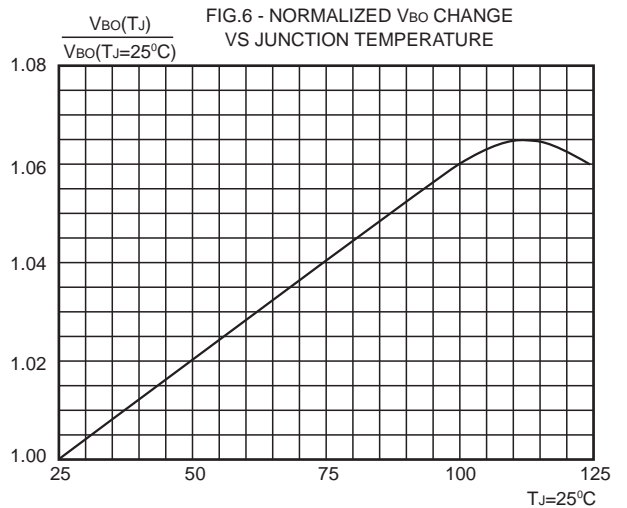
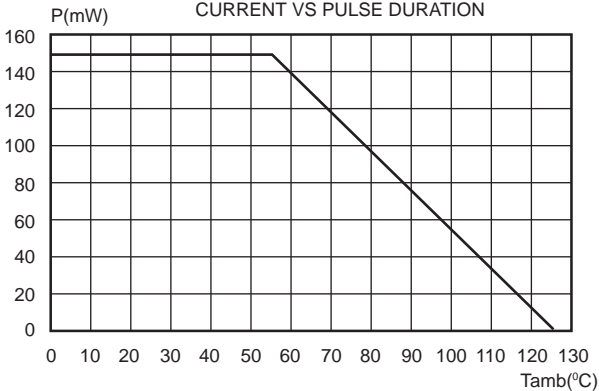


FIG.5 - REPETITIVE PEAK ON-STATE CURRENT VS PULSE DURATION



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