

**TRIGGER DIODES**

**FEATURES**

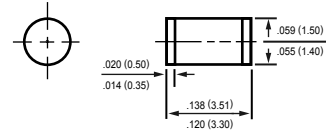
- \*  $V_{BO}$ : 32V/34V/40V VERSIONS
- \* Low Breakover Current

**DESCRIPTION**

High reliability glass passivation insuring parameter stability and protection against junction contamination



**LL-34**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings 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%.

**MAXIMUM RATINGS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATING	SYMBOL	VALUE	UNITS
Repetitive Peak On-State Current $t_p=20\mu\text{s}, F=100\text{Hz}$	$I_{TRM}$	2	A
Power Dissipation (@ $T_A=50^\circ\text{C}$ ) Derate Above $+50^\circ\text{C}$	P	150	mW
		4.0	mW/ $^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-40 to + 125	$^\circ\text{C}$
Junction Temperature	$T_J$	125	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS** (At  $T_A = 25^\circ\text{C}$  unless otherwise noted)

RATING	SYMBOL	VALUE				UNITS
		LLDB3		LLDB3SEL		
Breakover Voltage(Forward and Reverse) at $I_{BO}, C=22\text{nF}^{**}$	$V_{BO}$	Min	Max	Min	Max	Volts
		30	34	28	36	
Maximum Breakover Voltage Symmetry $\Delta V_{BO} =  V_{BO+} - V_{BO-} $ $C=22\text{nF}$	$\Delta V_{BO}$	+/-2				Volts
Minimum Dynamic Breakover Voltage $\Delta I = I_{BO}$ to $I_F=10\text{mA}$ (see Fig3)	$ \Delta V_{+/-} $	5				Volts
Minimum Output Voltage* (see Fig 2)	$V_O$	5				Volts
Peak Breakover Current at Breakover Voltage* $C=22\text{nF}^{**}$	$I_{BO}$	25		100		$\mu\text{A}$
Rise Time* (see Fig3)	$t_r$	1.5				$\mu\text{s}$
Leakage Current* $V_B=0.5V_{BO}$ max (see Fig1)	$I_B$	10				$\mu\text{A}$

NOTES: 1. \*Electrical characteristic applicable in both forward and reverse directions.

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2.\*\*Connected in parallel with the devices.

3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

## RATING AND CHARACTERISTICS CURVES ( LLDB3 AND LLDB3SEL )

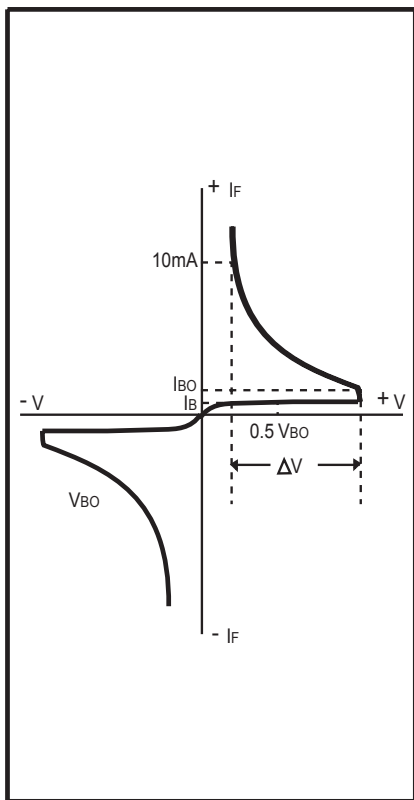


FIG.1 Current-voltage characteristics

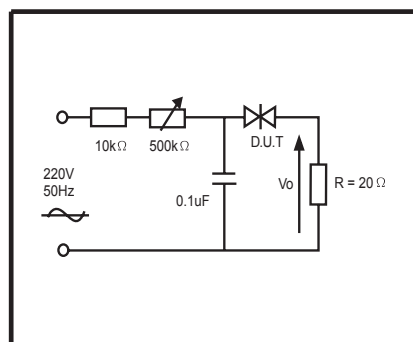


FIG.2 Test circuit for output voltage

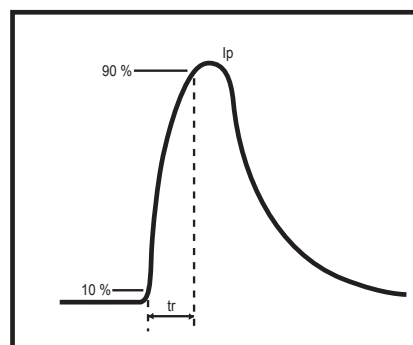


FIG.3 Test circuit see Fig.2  
Adjust R for  $I_p=0.5\text{A}$

## RATING AND CHARACTERISTICS CURVES ( LLDB3 AND LLDB3SEL )

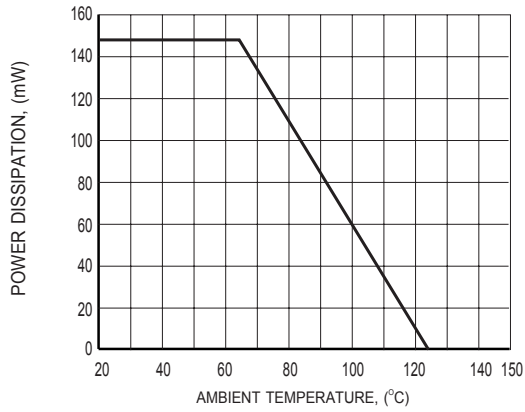


FIG.4 POWER DISSIPATION VERSUS AMBIENT TEMPERATURE (MAXIMUM VALUES)

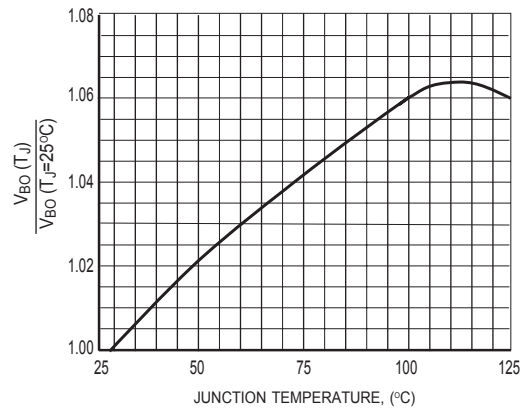


FIG.5 RELATIVE VARIATION OF  $V_{BO}$  VERSUS JUNCTION TEMPERATURE (TYPICAL VALUES)

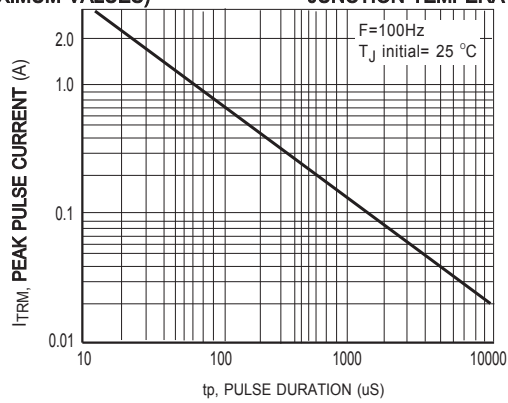


FIG.6 PEAK PULSE CURRENT VERSUS PULSE DURATION (MAXIMUM VALUES)

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