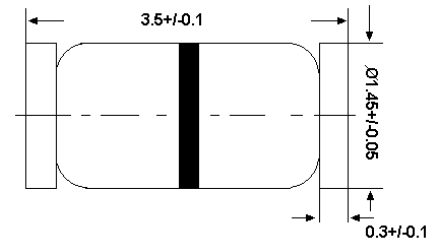


# LLDB3, LLDB4

## SILICON BIDIRECTIONAL DIACS

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.



Glass case MiniMELF  
Dimensions in mm

Storage Temperature Range  $T_S$  - 40 °C to +150 °C

Operating Temperature Range  $T_J$  - 40 °C to +100 °C

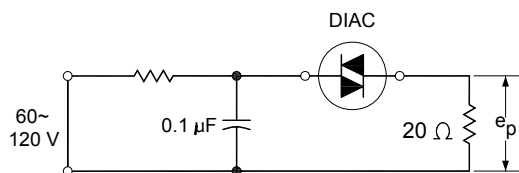
MAXIMUM RATINGS at 50 °C Ambient

Peak Current (10  $\mu$ s duration, 120 cycle repetition rate)  $I_P \pm 2$  A Max.

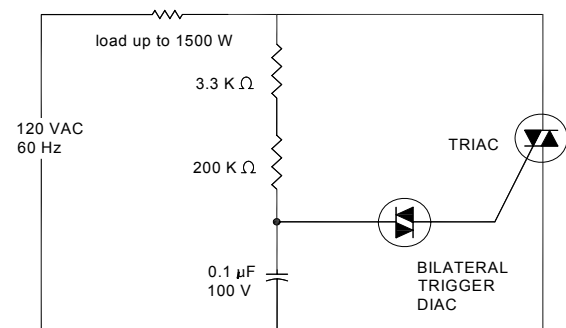
Peak output voltage  $e_P 3 \pm$  Volts Max.<sup>1)</sup>

### Characteristics at $T_a = 25$ °C

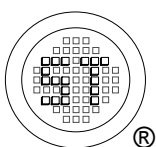
Parameter	Symbol	Min.	Max.	Unit
Breakover Voltage	LLDB3	28	36	V
	LLDB4	35	45	
Breakover Currents	$I_{(BR)1}$ and $I_{(BR)2}$	-	200	$\mu$ A
Breakover Voltage Symmetry	$ V_{(BR)1}  -  V_{(BR)2} $	-	3.8	V
Dynamic Breakover Voltage $\Delta I = [I_{BR} \text{ to } I_F = 10 \text{ mA}]$	$ \Delta V \pm $	5	-	V
Thermal Impedance Junction to Ambient Air	$R_{\theta JA}$	-	60	°C/W



<sup>1)</sup> CIRCUIT FOR PEAK OUTPUT VOLTAGE TEST



TYPICAL DIAC-TRIAC FULL-WAVE PHASE CONTROL CIRCUIT



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506088

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