



## DESCRIPTION

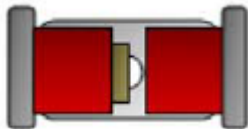
The LLDB3 is available in LL-34 package

## ORDERING INFORMATION

| Package Type                             | Part Number        |
|--|--------------------|
| LL-34                                    | LLDB3              |
| Note                                     | SPQ: 2,500pcs/Reel |
| AiT provides all RoHS Compliant Products |                    |

## PIN DESCRIPTION

Small Signal Diode



## FEATURES

- Surface device type mounting.
- Hermetically Sealed Glass.
- Matte Tin (Sn) Terminal Finish
- All external surfaces are corrosion resistant and terminals are readily solderable.
- Available in LL-34 package

## MECHANICAL DATA

Case: MINI-MELF Package

Terminal: Pure tin plated, lead free. solderable per  
MIL-STD-202, Method 208 guaranteed

High temperature soldering guaranteed: 260°C /10s

Weight :29 ± 2.5 mg



## ABSOLUTE MAXIMUM RATINGS

Rating at 25°C ambient temperature unless otherwise specified

|   |                          |
|---|--------------------------|
| P <sub>D</sub> , Power Dissipation  | 150mW                    |
| I <sub>FRM</sub> , Repetitive Peak Forward Current                            | Pulse Width=20µsec<br>2A |
| R <sub>θJA</sub> , Thermal Resistance (Junction to Ambient) <sup>NOTE 1</sup> | 400°C/W                  |
| T <sub>J</sub> , T <sub>STG</sub> , Junction and Storage Temperature Range    | -40°C ~125°C             |

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

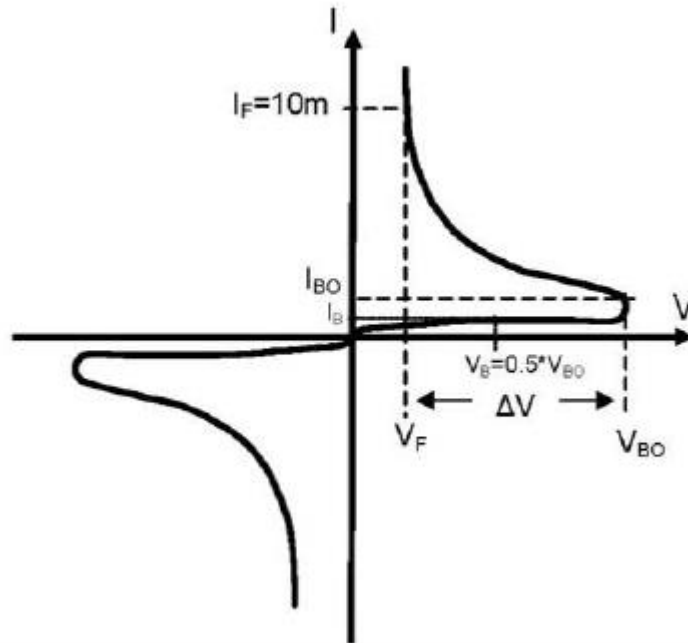
NOTE1: Valid provided that electrodes are kept at ambient temperature

## ELECTRICAL CHARACTERISTICS

| Parameter                   | Symbol             | Conditions                                |      | LLDB3 | LLDB3TG | Unit |
|-----------------------------|--------------------|---|------|-------|---------|------|
| Break-over Voltage          | V <sub>BO</sub>    | C= 22nF                                   | Min. | 28    | 30      | V    |
|                             |                    |   | Typ. | 32    | 32      |      |
|                             |                    |   | Max. | 36    | 34      |      |
| Break-over Voltage Symmetry | +/-V <sub>BO</sub> | C= 22nF                                   | Max. | +/-3  | +/-2    | V    |
| Break-over Current          | I <sub>BO</sub>    | C= 22nF                                   | Max. | 100   | 15      | nA   |
| Dynamic Breakover Voltage   | ΔV                 | I <sub>BO</sub> to I <sub>F</sub> =10mA   | Min. | 5     | 9       | V    |
| Leakage Current             | I <sub>B</sub>     | V <sub>B</sub> = 0.5V <sub>BO</sub> (MAX) | Max. | 10    |         | µA   |
| Output Voltage              | V <sub>O</sub>     | *see diagram 1                            | Min. | 5     |         | V    |

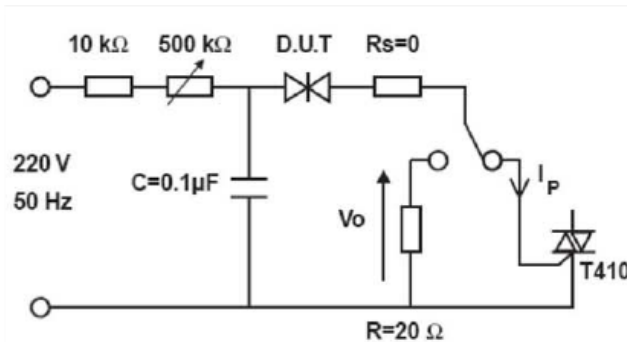


**ELECTRICAL PARAMETER**



| Symbol     | Parameter                           |
|------------|-------------------------------------|
| $V_{BO}$   | Break-Over Voltage                  |
| $I_{BO}$   | Break-Over Current                  |
| $\Delta V$ | Dynamic Breakover Voltage           |
| $I_B$      | Leakage Current at $V_B=0.5*V_{BO}$ |
| $V_F$      | Voltage at Current $I_F=10mA$       |

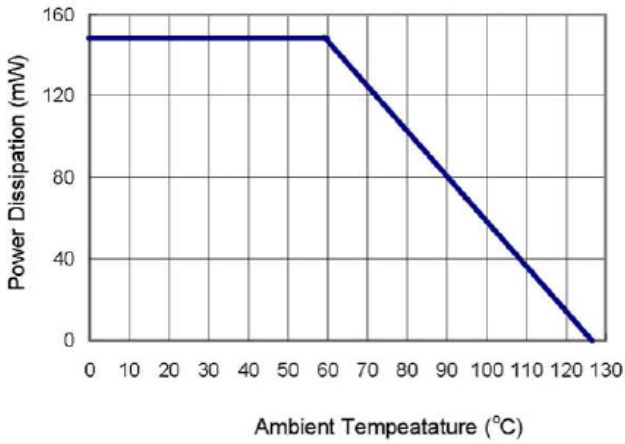
**TEST CIRCUIT**



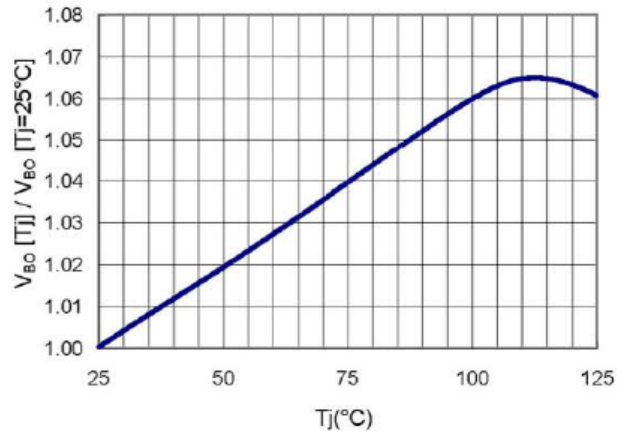


## TYPICAL PERFORMANCE CHARACTERISTICS

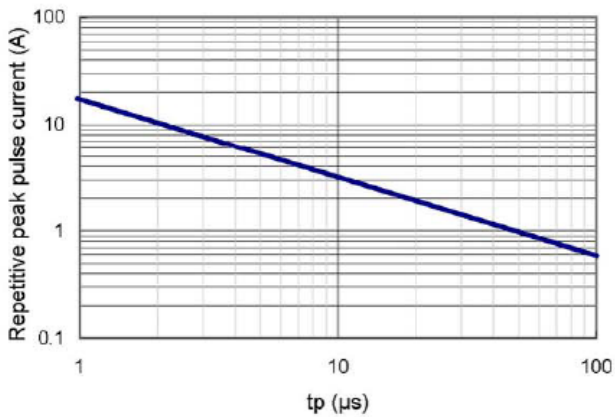
1. Admissible Power Dissipation Curve



2. Relative variation of  $V_{BO}$  vs. junction temperature (typical values)



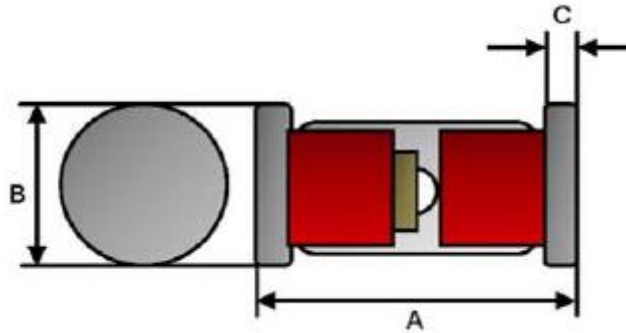
3. Repetitive peak pulse current vs. pulse duration (maximum values)



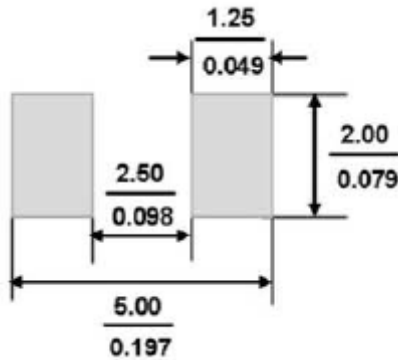


## PACKAGE INFORMATION

Dimension in LL-34 (Unit: mm)



Suggested PDA Layout



| DIM | MILLIMETERS |       | INCHES |       |
|-----|-------------|-------|--------|-------|
|     | MIN         | MAX   | MIN    | MAX   |
| A   | 3.300       | 3.700 | 0.130  | 0.146 |
| B   | 1.400       | 1.600 | 0.055  | 0.063 |
| C   | 0.200       | 0.500 | 0.008  | 0.020 |



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