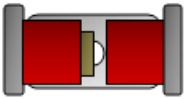
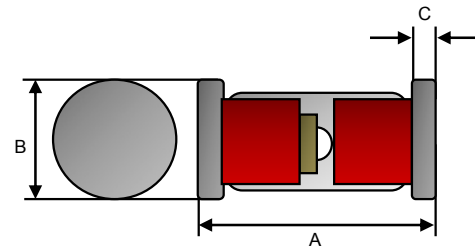


### Small Signal Diode



### MINI-MELF (LL34) HERMETICALLY SEALED GLASS



### Features

- ✧ Surface device type mounting.
- ✧ Hermetically Sealed Glass.
- ✧ Matte Tin (Sn) Terminal Finish
- ✧ Pb free version and RoHS compliant
- ✧ All external surfaces are corrosion resistant and terminals are readily solderable.

### Mechanical Data

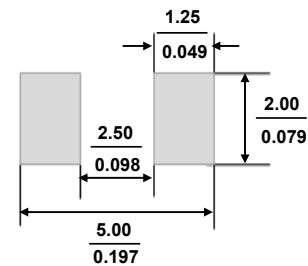
- ✧ Case :MINI-MELF Package
- ✧ Terminal: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ High temperature soldering guaranteed: 260°C/10s
- ✧ Weight : 29 ± 2.5 mg

Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.20	0.50	0.008	0.020

### Ordering Information

Package	Part No.	Packing
MINI-MELF	LLDB3 L1	2.5K / 7" Reel
MINI-MELF	LLDB3TG L1	2.5K / 7" Reel

### Suggested PAD Layout



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

#### Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	$P_D$	150	mW
Repetitive Peak Forward Current Pulse Width= 20µsec	$I_{FRM}$	2	A
Thermal Resistance (Junction to Ambient) (Note 1)	$R_{\theta JA}$	400	°C/W
Junction and Storage Temperature Range	$T_J, T_{STG}$	-40 to + 125	°C

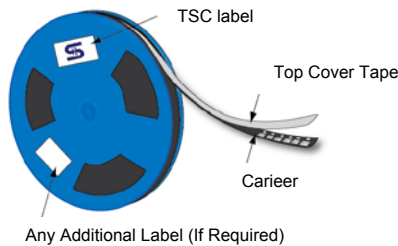
Notes:1. Valid provided that electrodes are kept at ambient temperature

**Small Signal Diode**

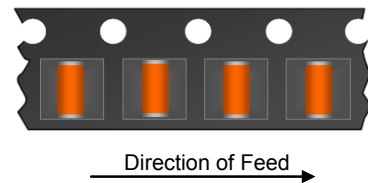
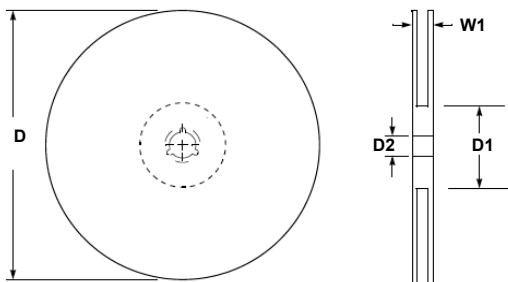
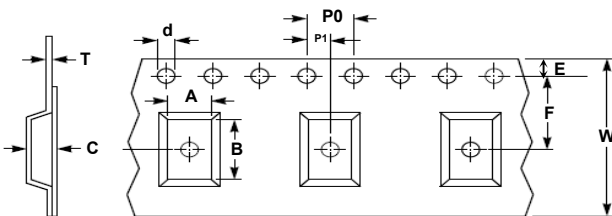
**Electrical Characteristics**

Type Number	Symbol	LLDB3	LLDB3TG	Units	
Break-over Voltage C= 22nF	$V_{BO}$	Min.	28	V	
		Typ.	32		
		Max.	36		
Break-over Voltage Symmetry C= 22nF	+ / - $V_{BO}$	Max.	+ / - 3	+ / - 2	V
Break-over Current C= 22nF	$I_{BO}$	Max.	100	15	$\mu A$
Dynamic Breakover Voltage $I_{BO}$ to $I_F=10mA$	$\Delta V$	Min.	5	9	V
Leakage Current $V_B= 0.5V_{BO}$ (MAX)	$I_B$	Max.	10		$\mu A$
Output Voltage *see diagram 1	$V_O$	Min.	5		V

**Tape & Reel specification**

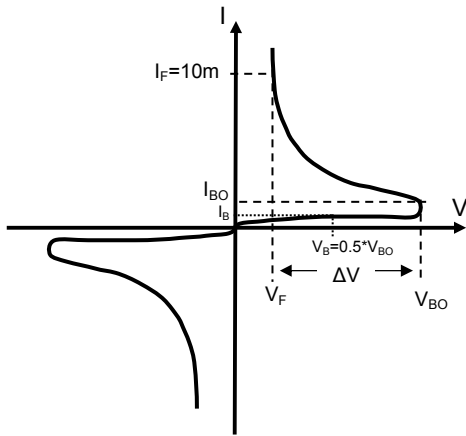


Item	Symbol	Dimension
Carrier width	A	1.83 ± 0.10
Carrier length	B	3.73 ± 0.10
Carrier depth	C	1.80 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	55 Min
Feed hole width	D2	13.0 ± 0.20
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.05
Sprocket hole pitch	P0	4.00 ± 0.10
Embossment center	P1	2.00 ± 0.05
Overall tape thickness	T	0.23 ± 0.005
Tape width	W	8.00 ± 0.30
Reel width	W1	14.4max



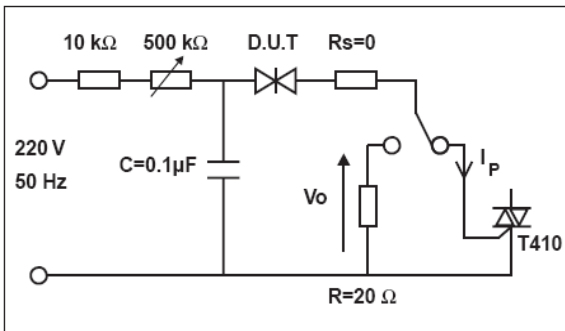
**Small Signal Diode**

**Rating and Characteristic Curves**

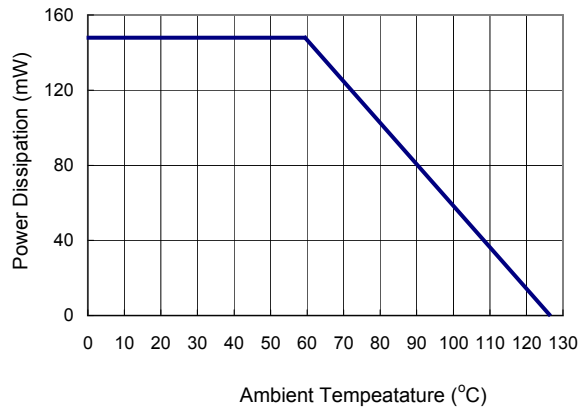


- $V_{BO}$  : Break-Over Voltage
- $I_{BO}$  : Break-Over Current
- $\Delta V$  : Dynamic Breakover Voltage
- $I_B$  : Leakage Current at  $V_B=0.5*V_{BO}$
- $V_F$  : Voltage at Current  $I_F=10mA$

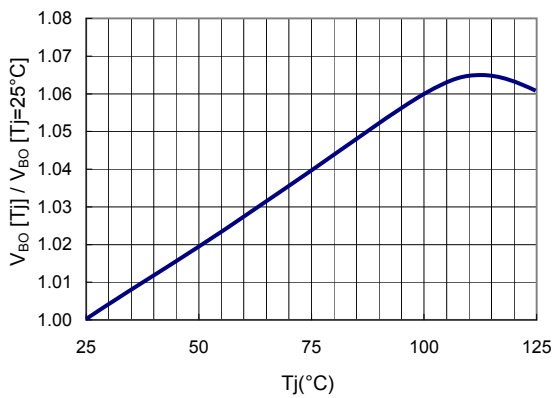
**Diagram 1: Test Circuit**



**FIG 1 Admissible Power Dissipation Curve**



**FIG 2 Relative variation of VBO versus junction temperature (typical values)**



**FIG 3 Repetitive peak pulse current versus pulse duration (maximum values)**

