

500 mW LL-34 Hermetically Sealed Glass Fast Switching Diodes



**SURFACE MOUNT
LL34**

DEVICE MARKING DIAGRAM



Cathode Band Color : Black

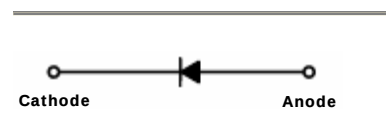
Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation	500	mW
T_{STG}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+175	$^\circ\text{C}$
W_{IV}	Working Inverse Voltage	75	V
I_O	Average Rectified Current	150	mA
I_{FM}	Non-repetitive Peak Forward Current	450	mA
I_{FSURGE}	Peak Forward Surge Current (Pulse Width = 1.0 μsecond)	2	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

- Fast Switching Device ($T_{RR} < 4.0 \text{ nS}$)
- LL-34 (Mini-MELF) Package
- Surface Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Terminals Are Readily Solderable
- RoHS Compliant
- Matte Tin (Sn) Terminal Finish
- Color band Indicates Negative Polarity



ELECTRICAL SYMBOL

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit
			Min	Max	
B_V	Breakdown Voltage	$I_R = 100 \mu\text{A}$ $I_R = 5 \mu\text{A}$	100 75		Volts
I_R	Reverse Leakage Current	$V_R = 20\text{V}$ $V_R = 75\text{V}$		25 5	nA μA
V_F	Forward Voltage	TCLL4448, TCLL914B $I_F = 5\text{mA}$ TCLL4148 $I_F = 10\text{mA}$ TCLL4448, TCLL914B $I_F = 100\text{mA}$	0.62	0.72 1.0 1.0	Volts
T_{RR}	Reverse Recovery Time	$I_F = 10\text{mA}$, $V_R = 6\text{V}$ $R_L = 100\Omega$ $I_{RR} = 1\text{mA}$		4	nS
C	Capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$		4	pF

Typical Characteristics

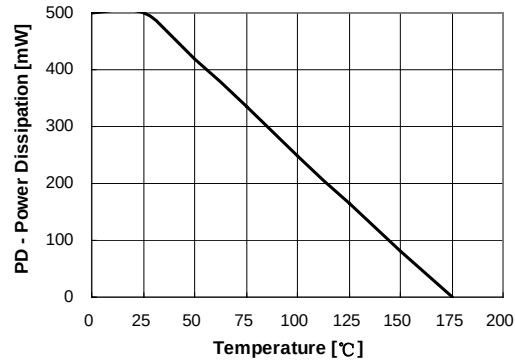


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

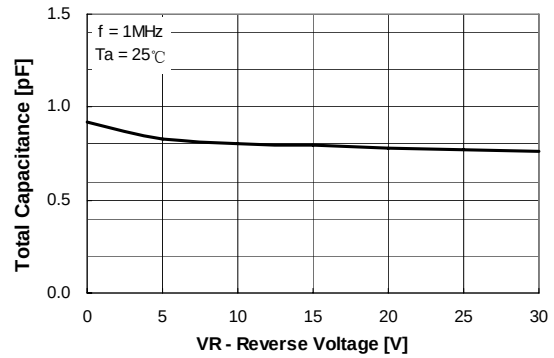


Figure 2. Total Capacitance

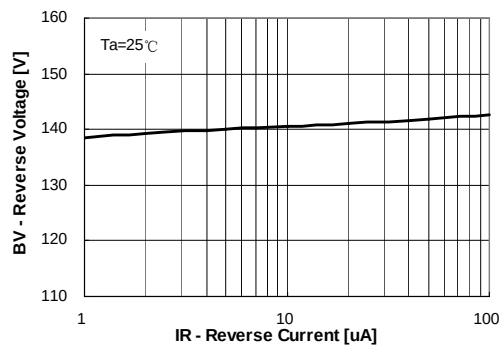


Figure 3. Reverse Voltage vs Reverse Current
BV – 1.0uA to 100uA

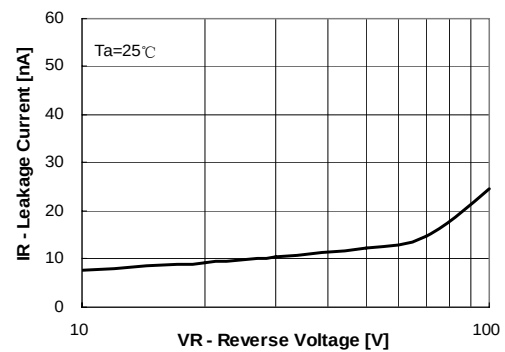


Figure 4. Reverse Current vs Reverse Voltage
IR – 10V to 100V

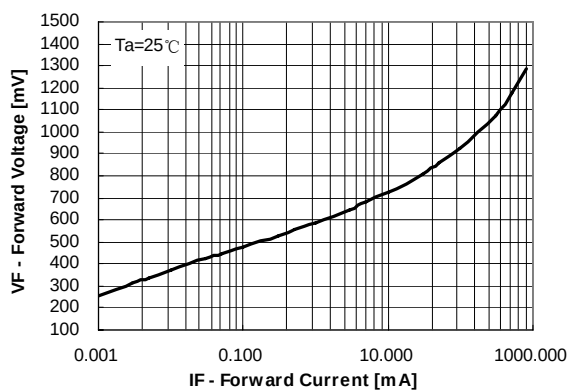


Figure 5. Forward Voltage vs Forward Current
VF – 0.001mA to 800mA

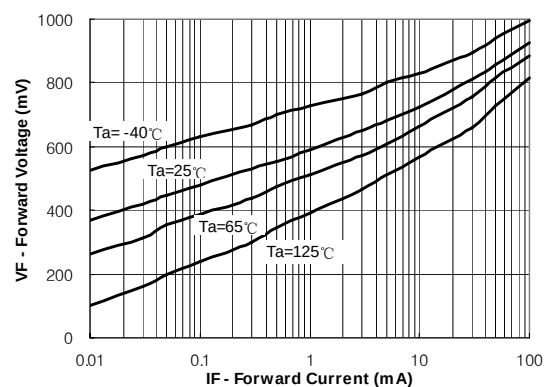
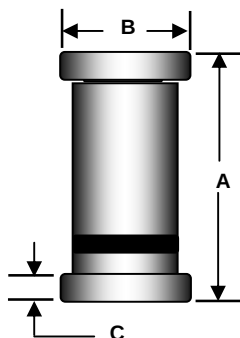


Figure 6. Forward Voltage vs Ambient Temperature
VF – 0.01mA to 100mA (-40 to +125 Deg C)

Package Outline

Package	Case Outline																																
LL34																																	
		<table><tr><th rowspan="3">DIM</th><th colspan="4">LL-34</th></tr><tr><th colspan="2">Millimeters</th><th colspan="2">Inches</th></tr><tr><th>Min</th><th>Max</th><th>Min</th><th>Max</th></tr><tr><td>A</td><td>3.302</td><td>3.505</td><td>0.130</td><td>0.138</td></tr><tr><td>B</td><td>1.397</td><td>1.499</td><td>0.055</td><td>0.059</td></tr><tr><td>C</td><td>0.350</td><td>0.500</td><td>0.014</td><td>0.020</td></tr></table>				DIM	LL-34				Millimeters		Inches		Min	Max	Min	Max	A	3.302	3.505	0.130	0.138	B	1.397	1.499	0.055	0.059	C	0.350	0.500	0.014	0.020
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Notes:

1. All dimensions are within DO213AC JEDEC standard.
2. LL-34 polarity denoted by cathode band.

NOTICE

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