LLZ2V0 THRU LLZ75V

500mW Hermetically Sealed Glass Zener Diodes

Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +175	°C
Operating Junction Temperature	+175	°C

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

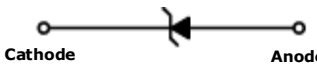
SURFACE MOUNT
LL34

DEVICE MARKING DIAGRAM

Cathode Band Color : Blue

Specification Features:

- Zener Voltage Range 2.0 to 75 Volts
- 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°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
TCLLZ2V0	2.0	5	100	120	0.5
TCLLZ2V2	2.2	5	100	120	0.7
TCLLZ2V4	2.4	5	100	120	1
TCLLZ2V7	2.7	5	110	100	1
TCLLZ3V0	3.0	5	120	50	1
TCLLZ3V3	3.3	5	120	20	1
TCLLZ3V6	3.6	5	100	10	1
TCLLZ3V9	3.9	5	100	5	1
TCLLZ4V3	4.3	5	100	5	1
TCLLZ4V7	4.7	5	80	5	1
TCLLZ5V1	5.1	5	80	5	1.5
TCLLZ5V6	5.6	5	60	5	2.5
TCLLZ6V2	6.2	5	60	5	3
TCLLZ6V8	6.8	5	20	2	3.5
TCLLZ7V5	7.5	5	20	0.5	4
TCLLZ8V2	8.2	5	20	0.5	5
TCLLZ9V1	9.1	5	25	0.5	6
TCLLZ10V	10	5	30	0.2	7
TCLLZ11V	11	5	30	0.2	8
TCLLZ12V	12	5	30	0.2	9

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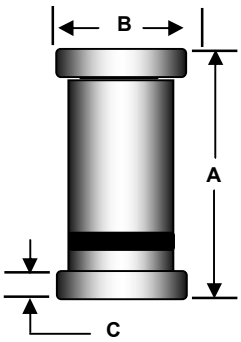
Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
TCLLZ13V	13	5	35	0.2	10
TCLLZ15V	15	5	40	0.2	11
TCLLZ16V	16	5	40	0.2	12
TCLLZ18V	18	5	45	0.2	13
TCLLZ20V	20	5	45	0.2	15
TCLLZ22V	22	5	30	0.2	17
TCLLZ24V	24	5	35	0.2	19
TCLLZ27V	27	2	45	0.2	21
TCLLZ30V	30	2	55	0.2	23
TCLLZ33V	33	2	65	0.2	25
TCLLZ36V	36	2	75	0.2	27
TCLLZ39V	39	2	85	0.2	30
TCLLZ43V	43	2	90	0.2	33
TCLLZ47V	47	2	90	0.2	36
TCLLZ51V	51	2	110	0.2	39
TCLLZ56V	56	2	110	0.2	43
TCLLZ62V	62	2	201	0.2	47
TCLLZ68V	68	2	230	0.2	51
TCLLZ75V	75	2	240	0.2	56

V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types

Notes:

1. The type numbers listed have zener voltage min/max limits as shown and have a standard tolerance on the nominal zener voltage of 5%.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong Electronics representative.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

Package Outline



DIM	LL-34			
	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.60	0.130	0.142
B	1.40	1.50	0.055	0.059
C	0.35	0.50	0.014	0.020

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

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Typical Characteristics

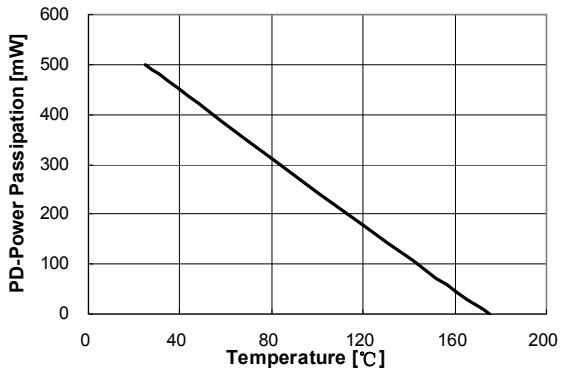

Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

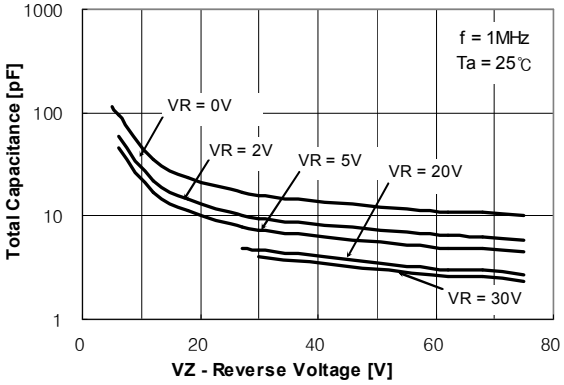

Figure 2. Total Capacitance

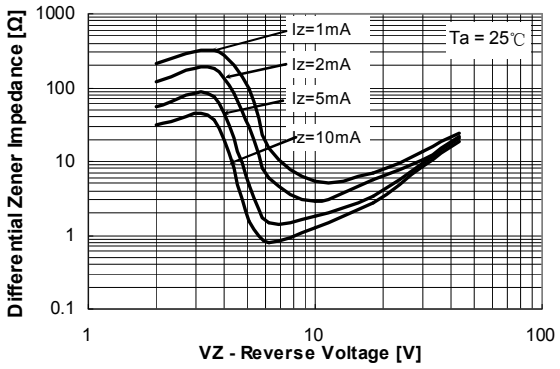

Figure 3. Differential Impedance vs. Zener Voltage

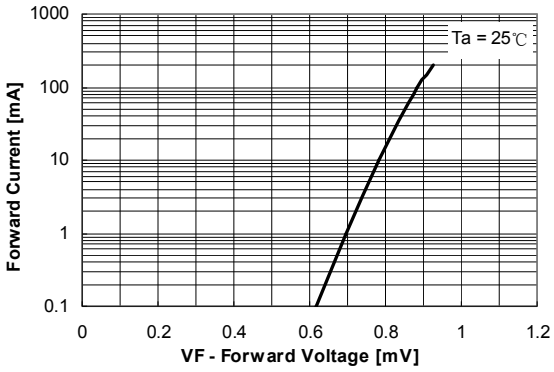

Figure 4. Forward Current vs. Forward Voltage

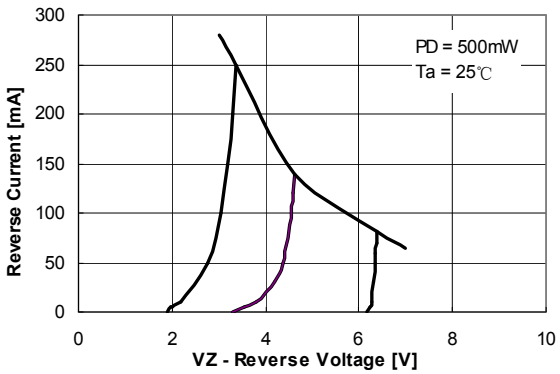

Figure 5. Reverse Current vs. Reverse Voltage

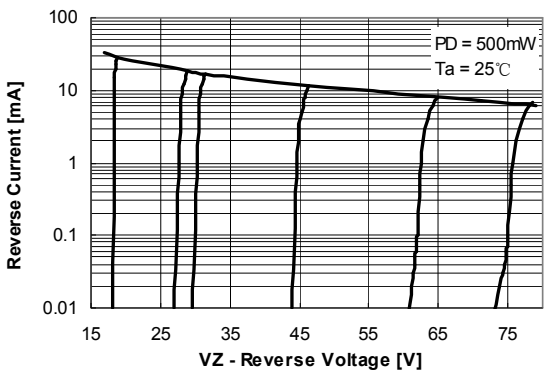

Figure 6. Reverse Current vs. Reverse Voltage

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