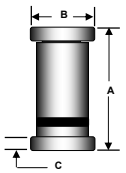
500 mW LL-34 Hermetically
Sealed Glass Zener Voltage Regulators



LL-34

DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	3.30	3.50	0.130	0.138
B	1.40	1.50	0.055	0.059
C	0.35	0.50	0.014	0.020

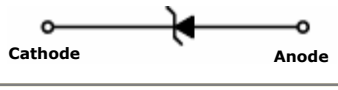
Absolute Maximum Ratings T_A = 25°C unless otherwise noted

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.

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)
HGLLZ2V0	2.0	5	100	120	0.5
HGLLZ2V2	2.2	5	100	120	0.7
HGLLZ2V4	2.4	5	100	120	1
HGLLZ2V7	2.7	5	110	100	1
HGLLZ3V0	3.0	5	120	50	1
HGLLZ3V3	3.3	5	120	20	1
HGLLZ3V6	3.6	5	100	10	1
HGLLZ3V9	3.9	5	100	5	1
HGLLZ4V3	4.3	5	100	5	1
HGLLZ4V7	4.7	5	80	5	1
HGLLZ5V1	5.1	5	80	5	1.5
HGLLZ5V6	5.6	5	60	5	2.5
HGLLZ6V2	6.2	5	60	5	3
HGLLZ6V8	6.8	5	20	2	3.5
HGLLZ7V5	7.5	5	20	0.5	4
HGLLZ8V2	8.2	5	20	0.5	5
HGLLZ9V1	9.1	5	25	0.5	6
HGLLZ10V	10	5	30	0.2	7
HGLLZ11V	11	5	30	0.2	8
HGLLZ12V	12	5	30	0.2	9

LL2V0-LL75V

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)
HGLLZ13V	13	5	35	0.2	10
HGLLZ15V	15	5	40	0.2	11
HGLLZ16V	16	5	40	0.2	12
HGLLZ18V	18	5	45	0.2	13
HGLLZ20V	20	5	45	0.2	15
HGLLZ22V	22	5	30	0.2	17
HGLLZ24V	24	5	35	0.2	19
HGLLZ27V	27	2	45	0.2	21
HGLLZ30V	30	2	55	0.2	23
HGLLZ33V	33	2	65	0.2	25
HGLLZ36V	36	2	75	0.2	27
HGLLZ39V	39	2	85	0.2	30
HGLLZ43V	43	2	90	0.2	33
HGLLZ47V	47	2	90	0.2	36
HGLLZ51V	51	2	110	0.2	39
HGLLZ56V	56	2	110	0.2	43
HGLLZ62V	62	2	201	0.2	47
HGLLZ68V	68	2	230	0.2	51
HGLLZ75V	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}.

Typical Characteristics

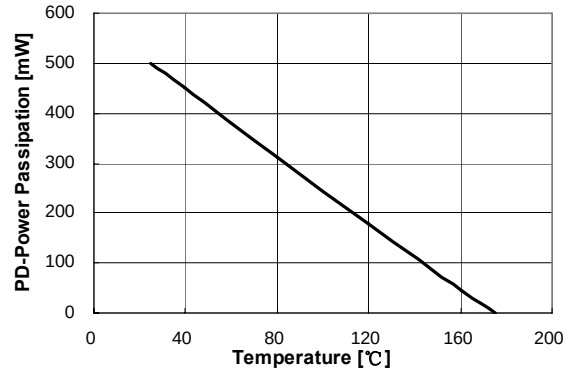


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

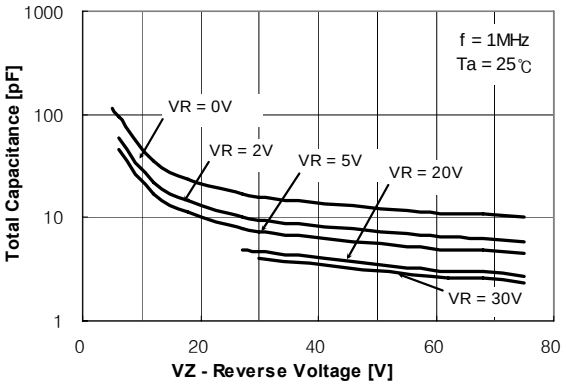


Figure 2. Total Capacitance

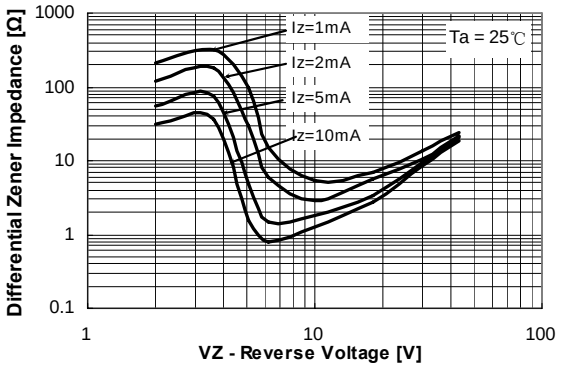


Figure 3. Differential Impedance vs. Zener Voltage

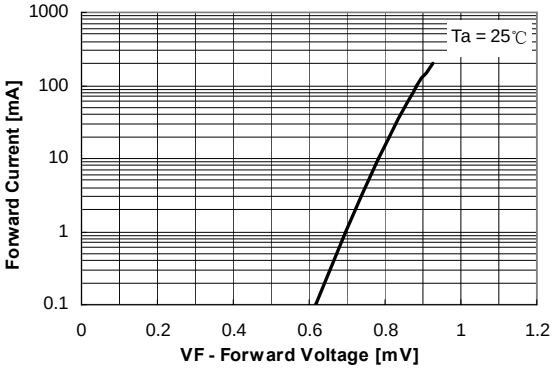


Figure 4. Forward Current vs. Forward Voltage

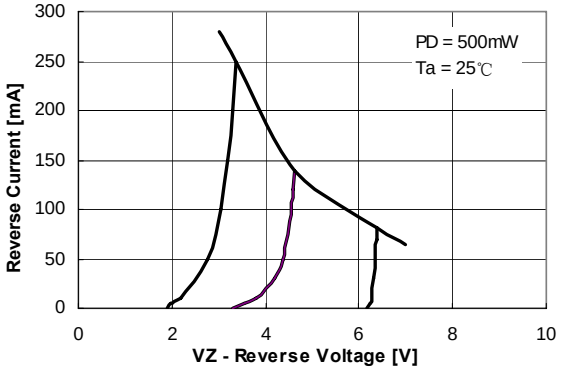


Figure 5. Reverse Current vs. Reverse Voltage

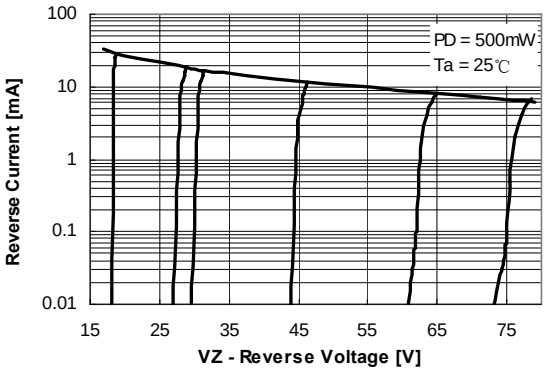


Figure 6. Reverse Current vs. Reverse Voltage