

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Zener Diode
LL34

LL34

SPECIFICATION

601		TCLZJ____x		LL34		E0Y
Type		Type		Package		Packing
601: Zener Diode		TCLZJ____		LL34		E0Y: tape and Reel(embossed tape) for 2,5k pc (7'REEL)

All products according to RoHS (2015/863/EU)

LL34

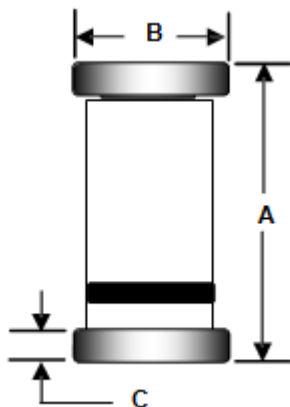
FrelTec
Zener Diode

TCLZJ__x

PACKAGE OUTLINE



DIMENSIONS



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

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

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +175	$^\circ\text{C}$
Operating Junction Temperature	+175	$^\circ\text{C}$

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

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

Device Type	VZ Tolerance	VZ@IZT			Izt (mA)	Zzt@Izt (Ohms) Max	Zzk@Izk (Ohms) Max	Izk (mA)	IR @VR (uA)	VR (V)
		Min	Nom	Max						
TCLZJ2V0	A	1.880	1.990	2.100	5	100	1000	0.5	120	0.5
	B	2.020	2.110	2.200						
TCLZJ2V2	A	2.120	2.210	2.300	5	100	1000	0.5	100	0.7
	B	2.220	2.315	2.410						
TCLZJ2V4	A	2.330	2.425	2.520	5	100	1000	0.5	120	1.0
	B	2.430	2.530	2.630						
TCLZJ2V7	A	2.540	2.645	2.750	5	110	1000	0.5	100	1.0
	B	2.690	2.800	2.910						
TCLZJ3V0	A	2.850	2.960	3.070	5	120	1000	0.5	50	1.0
	B	3.010	3.115	3.220						
TCLZJ3V3	A	3.160	3.270	3.380	5	120	1000	0.5	20	1.0
	B	3.320	3.425	3.530						
TCLZJ3V6	A	3.455	3.575	3.695	5	100	1000	1	10	1.0
	B	3.600	3.723	3.845						
TCLZJ3V9	A	3.740	3.875	4.010	5	100	1000	1	5	1.0
	B	3.890	4.025	4.160						
TCLZJ4V3	A	4.040	4.165	4.290	5	100	1000	1	5	1.0
	B	4.170	4.300	4.430						
	C	4.300	4.435	4.570						
TCLZJ4V7	A	4.44	4.56	4.68	5	80	900	1	5	1.0
	B	4.55	4.68	4.80						
	C	4.68	4.81	4.93						

VF Forward Voltage = 1,1 V Maximum @ IF = 200 mA for all types

Notes:

- The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of $\pm 5\%$ in Blue marking, suffix A= $\pm 10\%$ in Brown marking.
- 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 (IZT or IZK) is superimposed to IZT or IZK.

Typical Characteristics

3/4/2020

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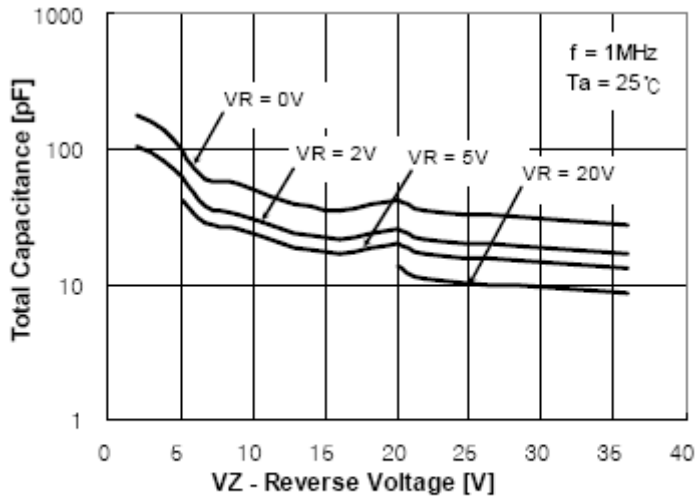


Figure 2. Total Capacitance

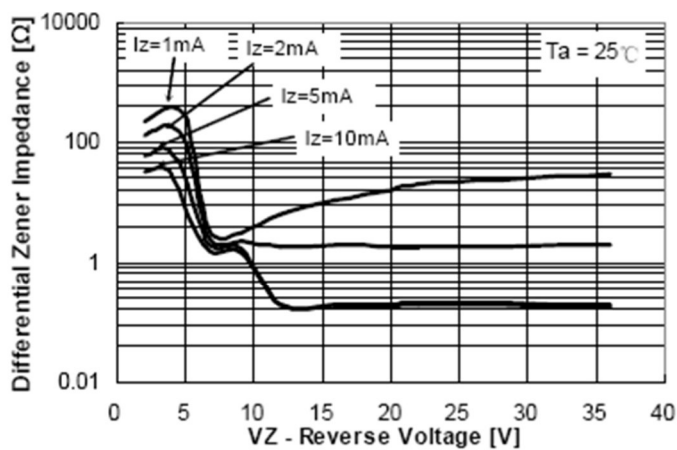


Figure 3. Differential Impedance vs. Zener Voltage

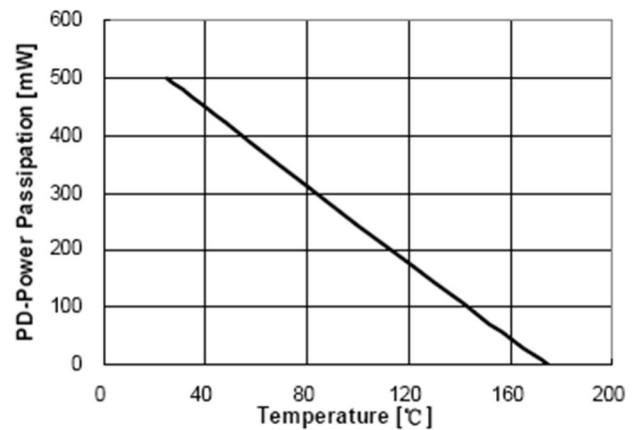


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

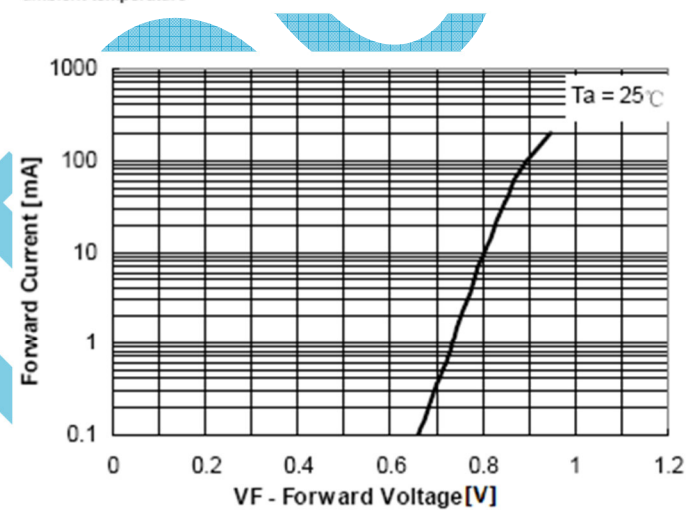


Figure 4. Forward Current vs. Forward Voltage

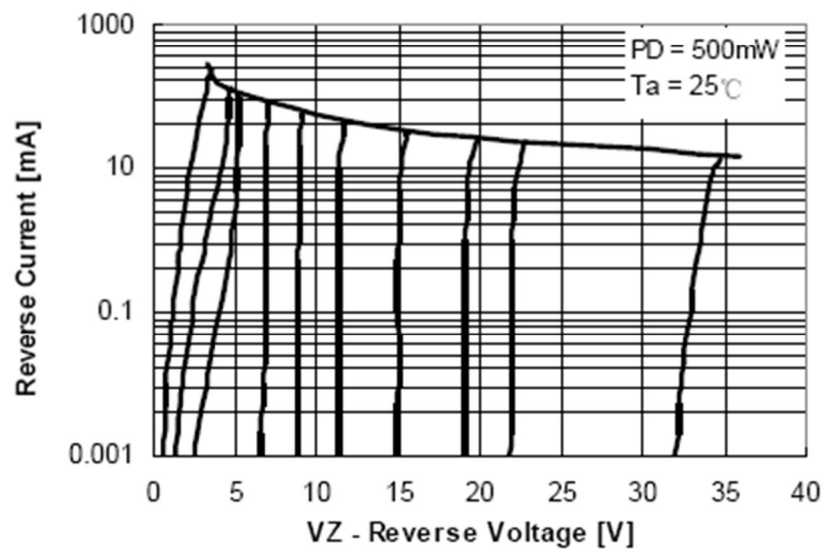
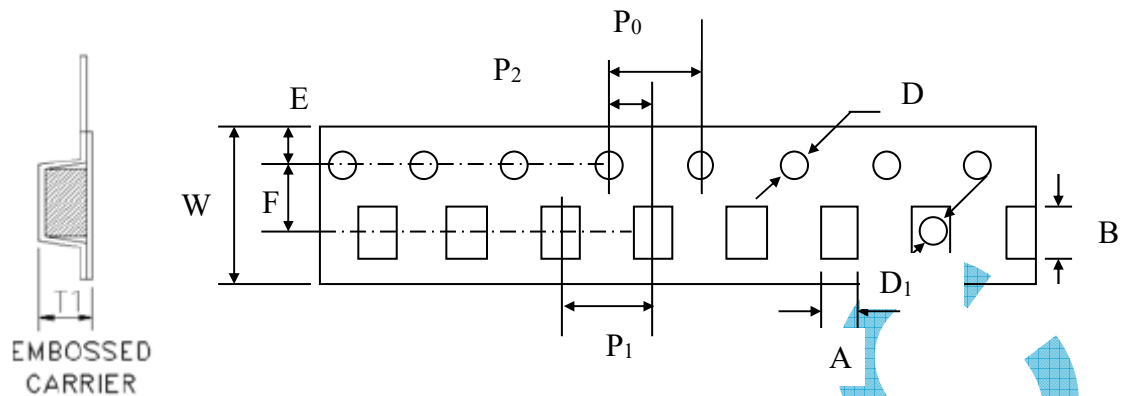


Figure 5. Reverse Current vs. Reverse Voltage

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SPECIFICATION

Tape And Reel Package

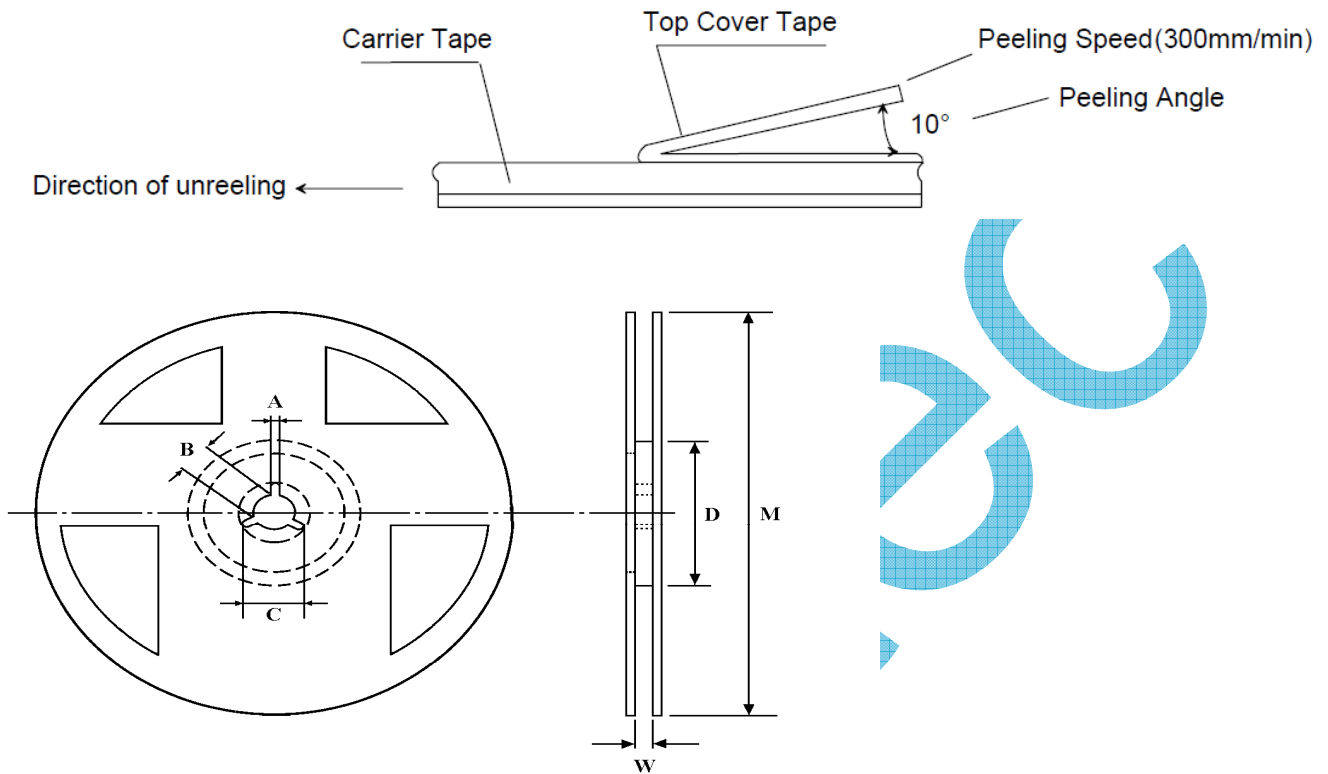


Type	A	B	W	E	F	P ₀	P ₁	P ₂	ΦD	ΦD ₁	T1
	1,83 ±0,1	3,73 ±0,1	8,00±0,10	1,75±0,1	3,5 ±0,05	4,00±0,10	4,00±0,10	2,00±0,05	1,55±0,03	1,5	2,22 ±0,05

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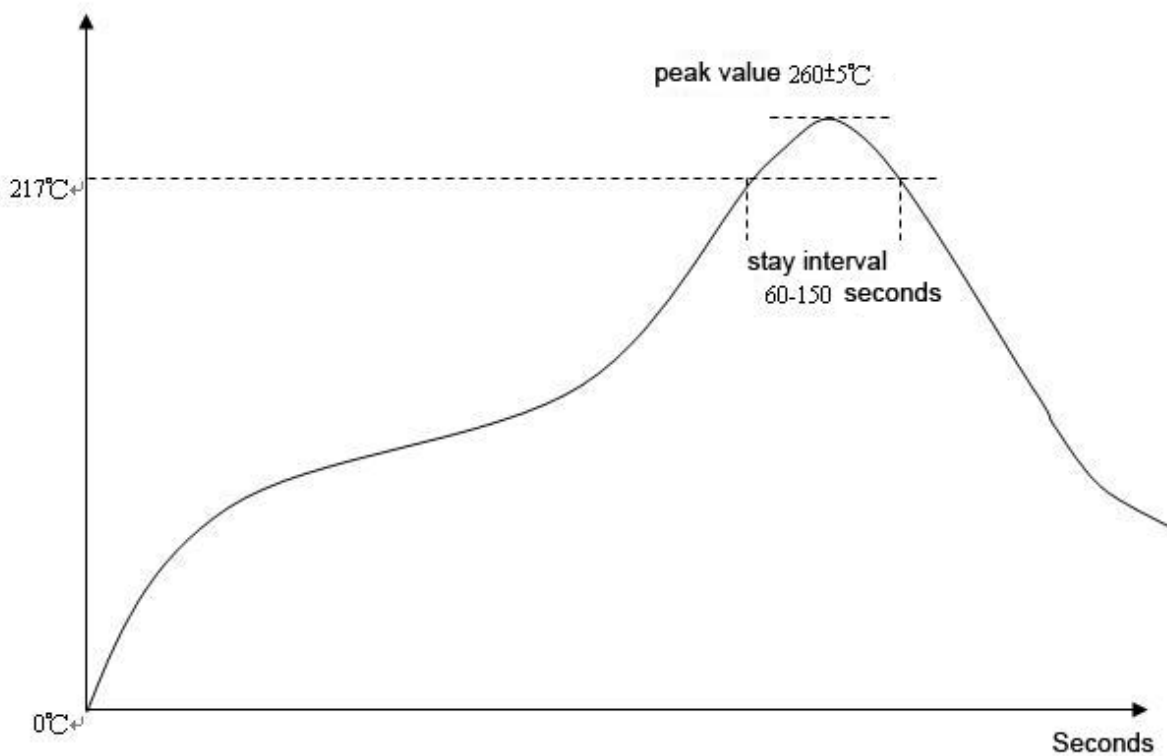
Cover Tape Peel off Strength

Specifications: peel force of top cover tape shall be between 8 to 40g
The peel speed shall be about 300mm/min±5%



Type	Packaging	M	A	B	C	D	W	T
	Embossed	178,0±1,0	2±0,5	13,5±0,7	21±0,5	60,0±1,0	13,5±1,0	15,5±1,0

Lead Free Reflow Soldering Profile



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Stock period

The performance of these products, including the solderability, is guaranteed for 12 month, provided that they remain packed as they were when delivered and stored at a temperature of $25^\circ\text{C} \pm 3^\circ\text{C}$ and a relative humidity less than 80%RH

3/4/2020

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Please read cautions and warnings and important notes at the end of this document.

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