

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

Zener Diode
DO35

DO-35

SPECIFICATION

601	TCZL__Bxx	DO35	B05
Type	Type	Package	Packing
601: Zener Diode	TCZL__B	DO35	B05: tape in box (paper tape) for 5k pc

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

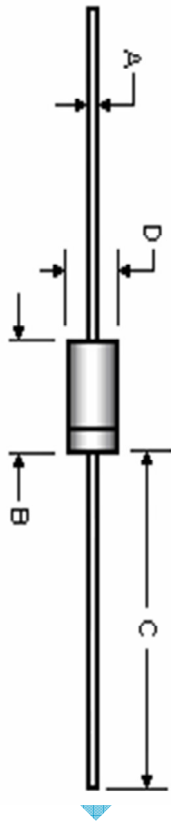
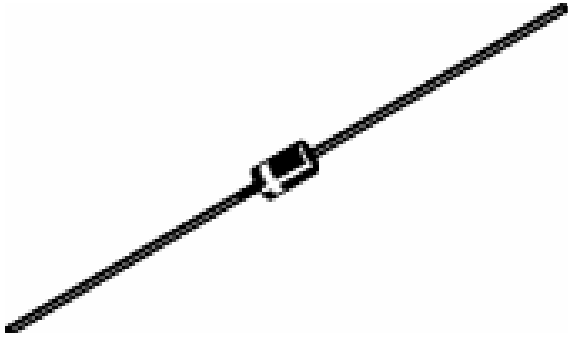


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FrelTec
Zener Diode

TCZL__B

PACKAGE OUTLINE



DIM.	Unit (mm)	
	Min	Max
A	0,46	0,55
B	3,05	5,08
C	25,4	38,10
D	1,53	2,28

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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	$V_Z @ I_{ZT}$ (Volts)			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
	Min	Nom	Max						
TCZL2V4B	2,35	2,4	2,45	5	94	1	564	45	1
TCZL2V7B	2,65	2,7	2,75	5	94	1	564	18	1
TCZL3V0B	2,94	3,0	3,06	5	89	1	564	9	1
TCZL3V3B	3,23	3,3	3,37	5	89	1	564	4,5	1
TCZL3V6B	3,53	3,6	3,67	5	84	1	564	4,5	1
TCZL3V9B	3,82	3,9	3,98	5	84	1	564	2,7	1
TCZL4V3B	4,21	4,3	4,39	5	84	1	564	2,7	1
TCZL4V7B	4,61	4,7	4,79	5	75	1	470	2,7	2
TCZL5V1B	5,00	5,1	5,20	5	56	1	451	1,8	2
TCZL5V6B	5,49	5,6	5,71	5	37	1	376	0,9	2
TCZL6V2B	6,08	6,2	6,32	5	9	1	141	2,7	4
TCZL6V8B	6,66	6,8	6,94	5	14	1	75	1,8	4
TCZL7V5B	7,33	7,5	7,63	5	14	1	75	0,9	5
TCZL8V2B	8,04	8,2	8,36	5	14	1	75	0,63	5
TCZL9V1B	8,92	9,1	9,28	5	14	1	94	0,45	6
TCZL10Bx	9,80	10	10,20	5	18	1	141	0,18	7
TCZL11Bx	10,78	11	11,22	5	18	1	141	0,09	8
TCZL12Bx	11,76	12	12,24	5	23	1	141	0,09	8
TCZL13Bx	12,74	13	13,26	5	28	1	160	0,09	8
TCZL15Bx	14,70	15	15,30	5	28	1	188	0,045	10,5
TCZL16Bx	15,68	16	16,32	5	37	1	188	0,045	11,2
TCZL18Bx	17,64	18	18,36	5	42	1	212	0,045	12,6
TCZL20Bx	19,60	20	20,40	5	51	1	212	0,045	14,0
TCZL22Bx	21,56	22	22,44	5	51	1	235	0,045	15,4
TCZL24Bx	23,52	24	24,48	5	65	1	235	0,045	16,8
TCZL27Bx	26,46	27	27,54	5	75	0,5	282	0,045	18,9
TCZL30Bx	29,40	30	30,60	5	75	0,5	282	0,045	21,0
TCZL33Bx	32,34	33	33,66	5	75	0,5	306	0,045	23,0
TCZL36Bx	35,28	36	36,72	5	84	0,5	329	0,045	25,2
TCZL39Bx	38,22	39	39,78	5	122	0,5	329	0,045	27,3
TCZL43Bx	42,14	43	43,86	5	141	0,5	353	0,045	30,1
TCZL47Bx	46,06	47	47,94	5	160	0,5	353	0,045	33,0

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TCZL51Bx	49,98	51	52,02	5	169	0,5	376	0,045	35,7
TCZL56Bx	54,88	56	57,12	5	188	0,5	400	0,045	39,2
TCZL62Bx	60,76	62	63,24	5	202	0,5	423	0,045	43,4
TCZL68Bx	66,64	68	69,36	5	226	0,5	447	0,045	47,6
TCZL75Bx	73,50	75	76,50	5	240	0,5	470	0,045	52,5

VF Forward Voltage = 1 V Maximum @ IF = 100 mA for all types

Notes:

1. TOLERANCE AND VOLTAGE DESIGNATION

The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of $\pm 2\%$. Device tolerance of $\pm 5\%$ is indicated by a "C" instead of a "B".

2. ZENER VOLTAGE (V_Z) MEASUREMENT

The zener voltage is measured under pulse conditions such that T_J is no more than 2°C above T_A .

3. ZENER IMPEDANCE (Z_Z) DERIVATION

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}) is superimposed to I_{ZT} .

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Typical Characteristics

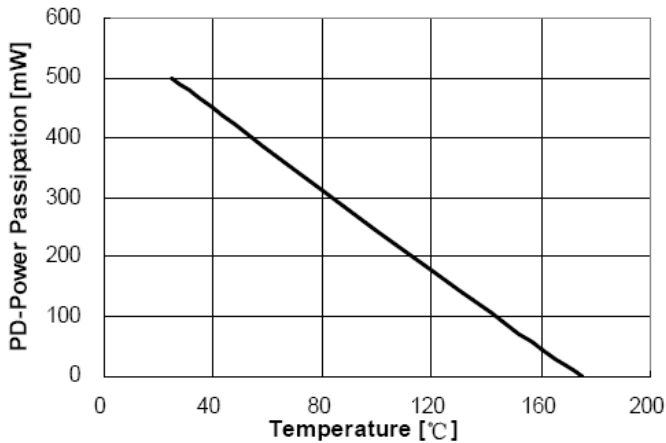


Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

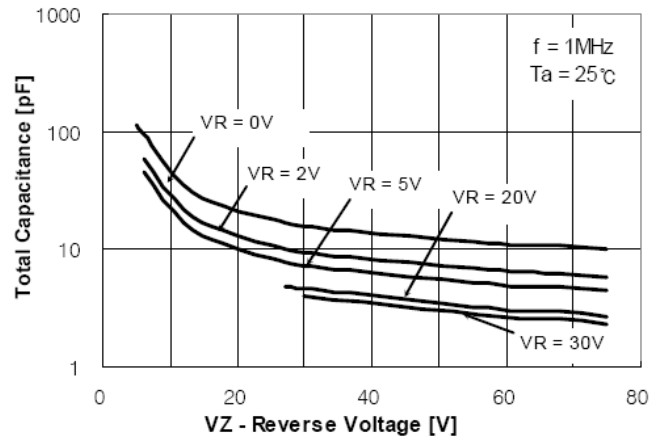


Figure 2. Total Capacitance

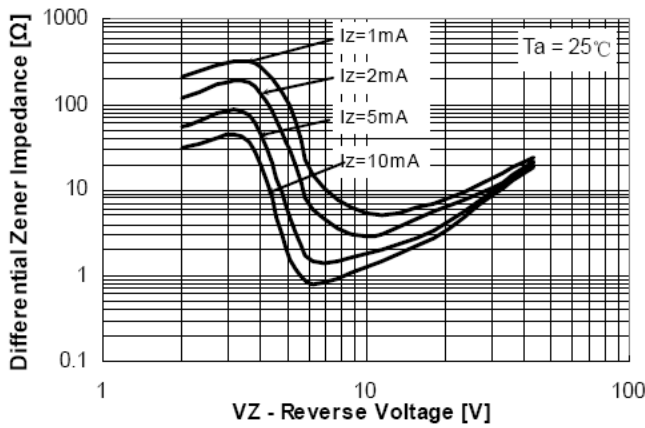


Figure 3. Differential Impedance vs. Zener Voltage

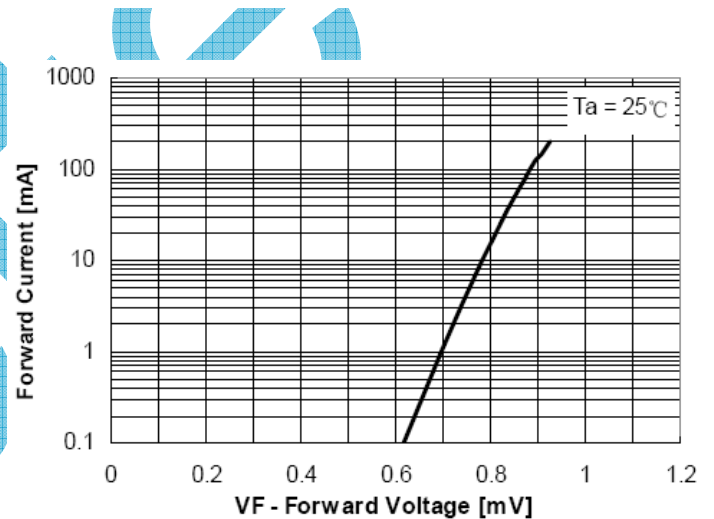


Figure 4. Forward Current vs. Forward Voltage

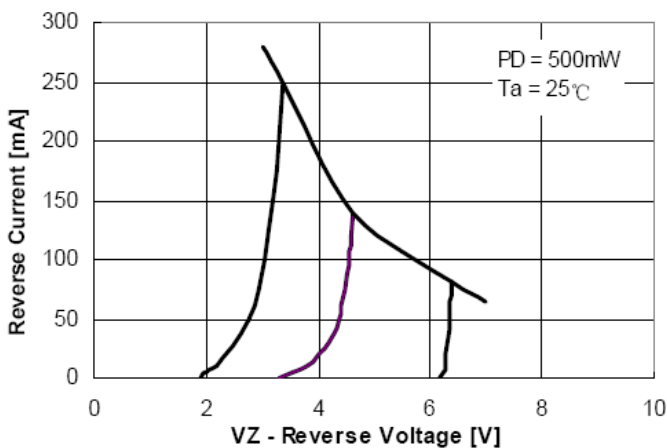


Figure 5. Reverse Current vs. Reverse Voltage

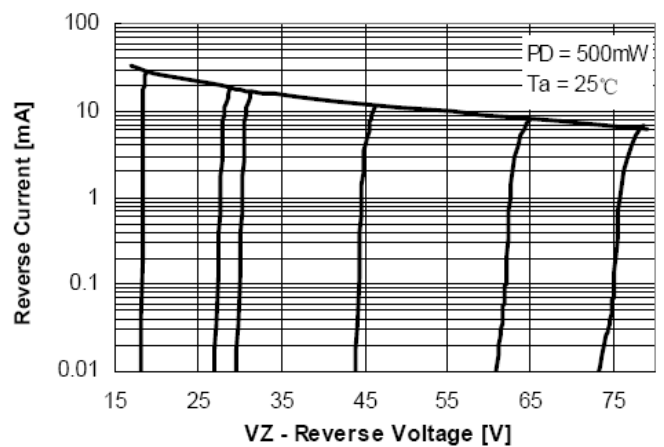
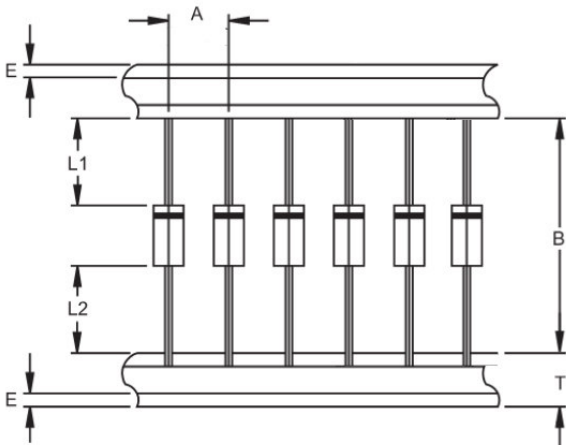


Figure 6. Reverse Current vs. Reverse Voltage

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SPECIFICATION

Tape in box (paper tape)

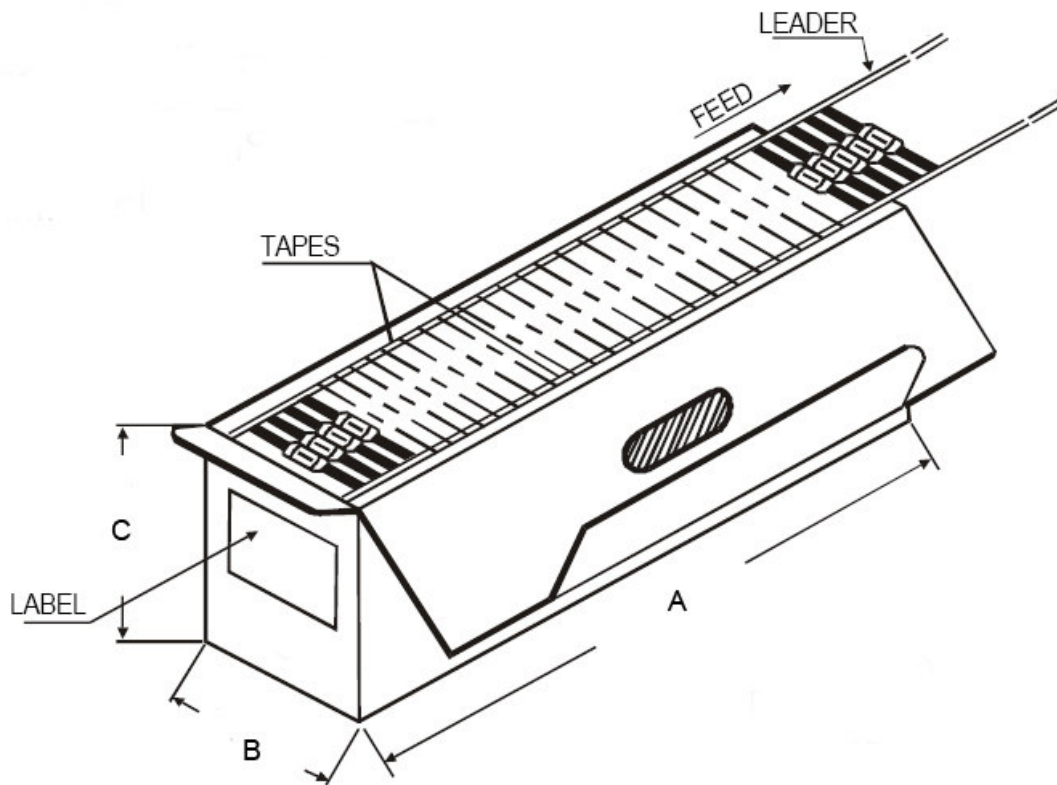


Taping Dimensions	A +/- 0,5mm	B +/- 1,5mm	T	E	L1-L2
DO-35	0,5mm	52,4mm	2,75~6,4	0,8max	±1,2

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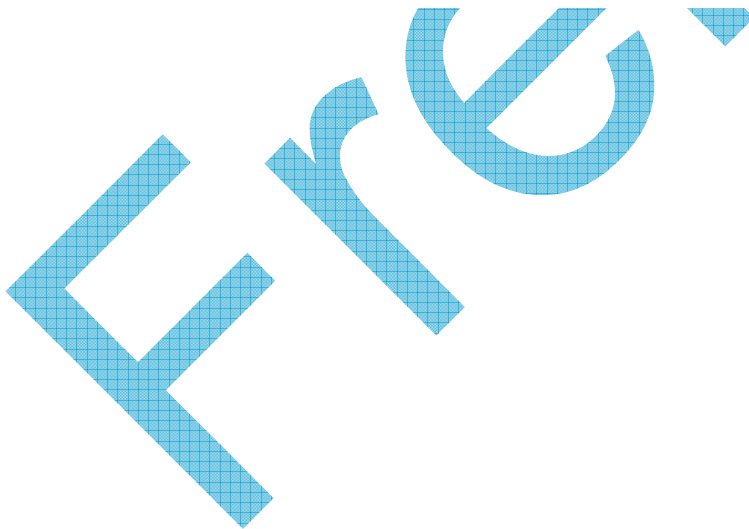
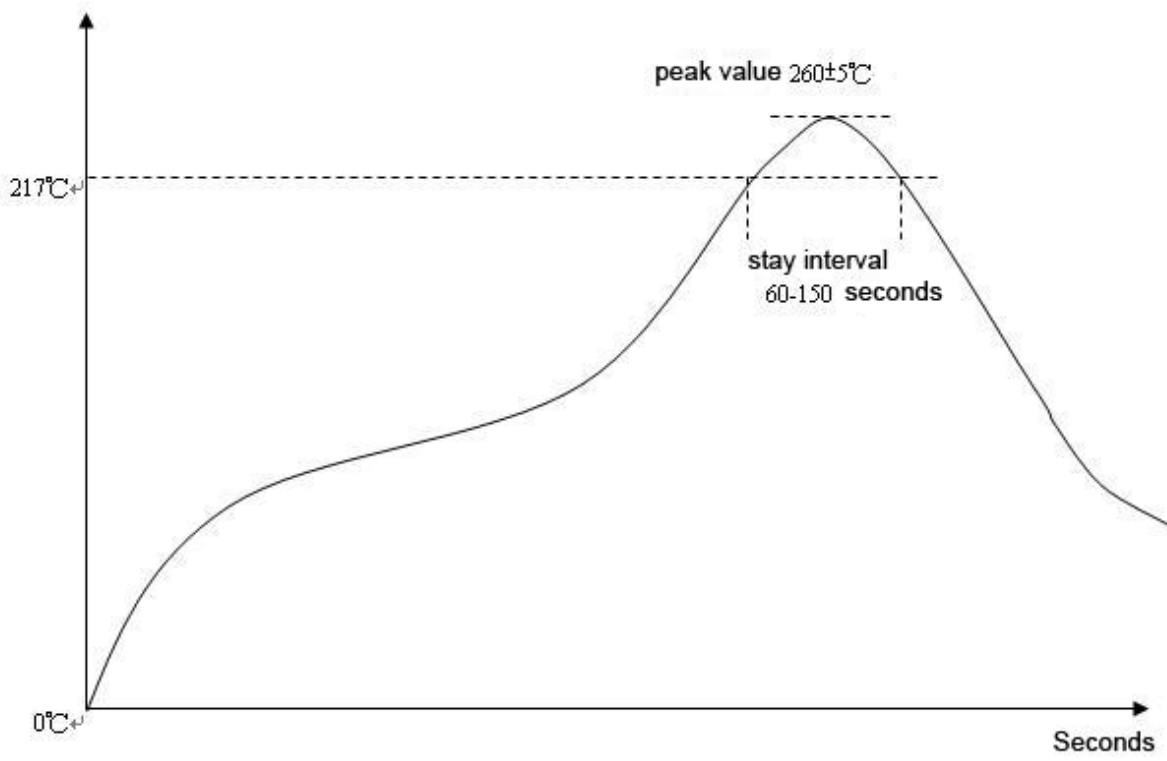
This axial-lead component's packaging requirements use in automatic testing and assembly equipment. And this standard practices for lead-tape packaging of axial-lead components meets the requirements of EIA Standard RS-296-D "Lead-taping of Components on Axial Lead Configuration for Automatic Insertion".

Tape & Ammo Outline



Packaging	Available Product Outlines	Dimension "A"	Dimension "B"	Dimension "C"	Quantity Box
52mm Horizontal Ammo Pack	DO-35	250mm	80mm	80mm	5K

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Lead Free Reflow Soldering Profile



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°C ± 3°C and a relative humidity less than 80%RH

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