

Silicon Zener Diodes

STZ1W-L Series

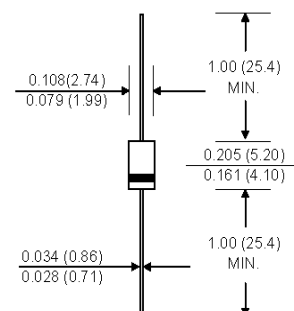
Features

- Low zener impedance
- Excellent clamping capability

Mechanical Data

- **Case:** DO-41 Molded plastic
- **Epoxy:** UL 94V-0 rate flame retardant
- **Terminals:** Axial leads, solderable per MIL-STD-750 method 2026 guaranteed
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any

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Dimensions in inches and (millimeters)

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	1	W
Operating Junction Temperature	T_j	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2 2.4	V
STZ1W-L100B-STZ1W-L240B STZ1W-L250B-STZ1W-L350B			

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Characteristics at $T_a = 25^\circ\text{C}$

Type	Marking	Zener Voltage ¹⁾				Dynamic Impedance		Reverse Leakage Current	
		V_{Znom}	V_{ZT}		at I_{ZT}	Z_{ZT}	at I_{ZT}	I_R	at V_R
		(V)	Min. (V)	Max. (V)	(mA)	Max. (Ω)	(mA)	Max. (μA)	(V)
STZ1W-L100B	ZL100B	100	95	105	0.1	2000	1	0.2	86
STZ1W-L110B	ZL110B	110	104.5	115.5	0.1	2000	1	0.2	94
STZ1W-L115B	ZL115B	115	109.25	120.75	0.1	2000	1	0.2	98
STZ1W-L120B	ZL120B	120	114	126	0.1	2000	1	0.2	103
STZ1W-L130B	ZL130B	130	123.5	136.5	0.1	2000	1	0.2	111
STZ1W-L140B	ZL140B	140	133	147	0.1	5000	1	0.2	120
STZ1W-L150B	ZL150B	150	142.5	157.5	0.1	5000	1	0.2	128
STZ1W-L160B	ZL160B	160	152	168	0.1	5000	1	0.2	137
STZ1W-L170B	ZL170B	170	161.5	178.5	0.1	5000	1	0.2	145
STZ1W-L180B	ZL180B	180	171	189	0.1	5000	1	0.2	154
STZ1W-L190B	ZL190B	190	180.5	199.5	0.1	5000	1	0.2	162
STZ1W-L200B	ZL200B	200	190	210	0.1	8000	1	0.2	171
STZ1W-L210B	ZL210B	210	199.5	220.5	0.1	9000	1	0.2	180
STZ1W-L220B	ZL220B	220	209	231	0.1	9000	1	0.2	188
STZ1W-L230B	ZL230B	230	218.5	241.5	0.1	9000	1	0.2	197
STZ1W-L240B	ZL240B	240	228	252	0.1	9000	1	0.2	205
STZ1W-L250B	ZL250B	250	237.5	262.5	0.1	9000	1	0.2	214
STZ1W-L260B	ZL260B	260	247	273	0.1	9000	1	0.2	222
STZ1W-L270B	ZL270B	270	256.5	283.5	0.1	9000	1	0.2	231
STZ1W-L280B	ZL280B	280	266	294	0.1	9000	1	0.2	239
STZ1W-L290B	ZL290B	290	275.5	304.5	0.1	9000	1	0.2	248
STZ1W-L300B	ZL300B	300	285	315	0.1	9000	1	0.2	257
STZ1W-L310B	ZL310B	310	294.5	325.5	0.1	9500	1	0.2	265
STZ1W-L320B	ZL320B	320	304	336	0.1	9500	1	0.2	274
STZ1W-L330B	ZL330B	330	313.5	346.5	0.1	9500	1	0.2	282
STZ1W-L340B	ZL340B	340	323	357	0.1	9500	1	0.2	290
STZ1W-L350B	ZL350B	350	332.5	367.5	0.1	9500	1	0.2	299

¹⁾ Tested with pulses $t_p = 20$ ms. Suffix "A" indicates $\pm 10\%$ tolerance, Suffix "B" indicates $\pm 5\%$ tolerance.

Fig. 1 - POWER DISSIPATION CHARACTERISTIC

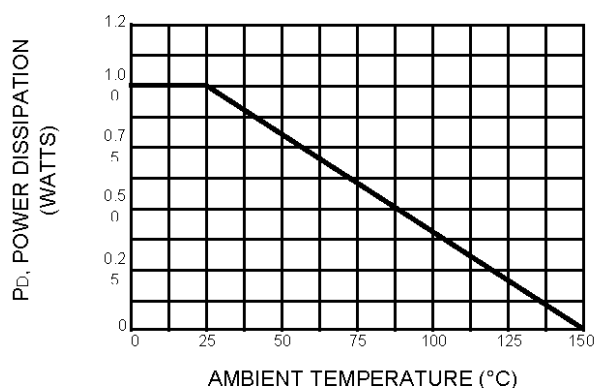


FIG. 2 - TYPICAL ZENER VOLTAGE CHARACTERISTIC

