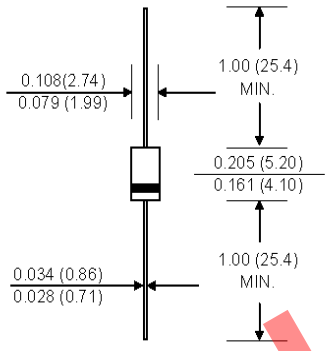
STZ1W-T Series

Silicon Zener Diodes

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

DO - 41



Dimensions in inches and (millimeters)

Absolute Maximum Ratings (T_a = 25 °C)

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

Characteristics at T_a = 25 °C

Parameter		Symbol	Max.	Unit
Forward Voltage at I_F = 200 mA	STZ1W-T100B-STZ1W-T240B	V_F	1.2	V
	STZ1W-T250B-STZ1W-T330B		2.4	

Characteristics at T_a = 25 °C

Type	Marking	Zener Voltage [1]				Dynamic Impedance				Reverse Current	
		V_{Znom}	V_{ZT}		at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
		V	Min. (V)	Max. (V)	mA	Max. (Ω)	mA	Max. (Ω)	mA	Max. (μA)	V
STZ1W-T100B	ZT100B	100	95	105	0.95	750	0.95	5000	0.25	0.2	86
STZ1W-T110B	ZT110B	110	104.5	115.5	0.95	750	0.95	5000	0.25	0.2	94
STZ1W-T115B	ZT115B	115	109.25	120.75	0.95	750	0.95	5000	0.25	0.2	98
STZ1W-T120B	ZT120B	120	114	126	0.95	850	0.95	5000	0.25	0.2	103
STZ1W-T130B	ZT130B	130	123.5	136.5	0.95	1000	0.95	5000	0.25	0.2	111
STZ1W-T140B	ZT140B	140	133	147	0.9	1200	0.9	5000	0.25	0.2	120
STZ1W-T150B	ZT150B	150	142.5	157.5	0.85	1300	0.85	5000	0.25	0.2	128
STZ1W-T160B	ZT160B	160	152	168	0.8	1500	0.8	5000	0.25	0.2	137
STZ1W-T170B	ZT170B	170	161.5	178.5	0.74	2200	0.74	5000	0.25	0.2	145
STZ1W-T180B	ZT180B	180	171	189	0.68	2200	0.68	5000	0.25	0.2	154
STZ1W-T190B	ZT190B	190	180.5	199.5	0.66	2500	0.66	5000	0.25	0.2	162
STZ1W-T200B	ZT200B	200	190	210	0.65	2500	0.65	8000	0.25	0.2	171
STZ1W-T210B	ZT210B	210	199.5	220.5	0.62	5000	0.62	9000	0.25	0.2	180
STZ1W-T220B	ZT220B	220	209	231	0.59	5000	0.59	9000	0.25	0.2	188
STZ1W-T230B	ZT230B	230	218.5	241.5	0.57	5000	0.57	9000	0.25	0.2	197
STZ1W-T240B	ZT240B	240	228	252	0.54	5000	0.54	9000	0.25	0.2	205
STZ1W-T250B	ZT250B	250	237.5	262.5	0.52	5000	0.52	9000	0.25	0.2	214
STZ1W-T260B	ZT260B	260	247	273	0.5	5000	0.5	9000	0.25	0.2	222
STZ1W-T270B	ZT270B	270	256.5	283.5	0.48	5000	0.48	9000	0.25	0.2	231
STZ1W-T280B	ZT280B	280	266	294	0.46	5000	0.46	9000	0.25	0.2	239
STZ1W-T290B	ZT290B	290	275.5	304.5	0.45	5000	0.45	9000	0.25	0.2	248
STZ1W-T300B	ZT300B	300	285	315	0.43	5000	0.43	9000	0.25	0.2	257
STZ1W-T310B	ZT310B	310	294.5	325.5	0.42	5000	0.42	9500	0.25	0.2	265
STZ1W-T320B	ZT320B	320	304	336	0.41	5000	0.41	9500	0.25	0.2	274
STZ1W-T330B	ZT330B	330	313.5	346.5	0.39	5000	0.39	9500	0.25	0.2	282

[1] Tested with pulses t_p = 20 ms. Suffix "A" indicates ± 10% tolerance, Suffix "B" indicates ± 5% tolerance.

Fig. 1 - POWER DISSIPATION CHARACTERISTIC

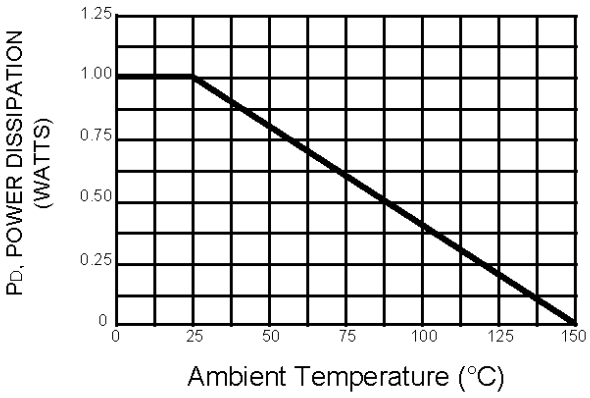


FIG. 2 - TYPICAL ZENER VOLTAGE CHARACTERISTIC