

1Z6.2 - 1Z390

V_Z : 6.2 - 390 Volts

P_D : 1 Watt

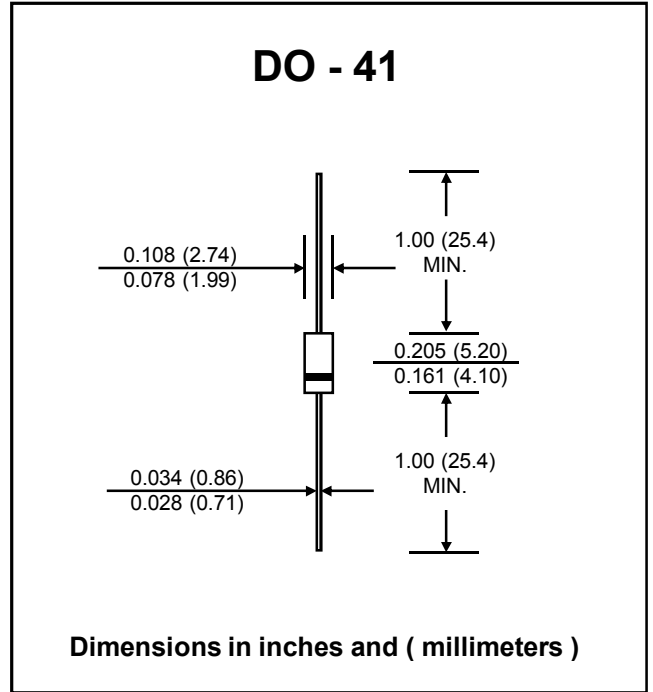
FEATURES :

- * Complete voltage range 6.2 to 390 Volts
- * High peak reverse power dissipation
- * High reliability
- * Low leakage current
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-41 Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.335 gram

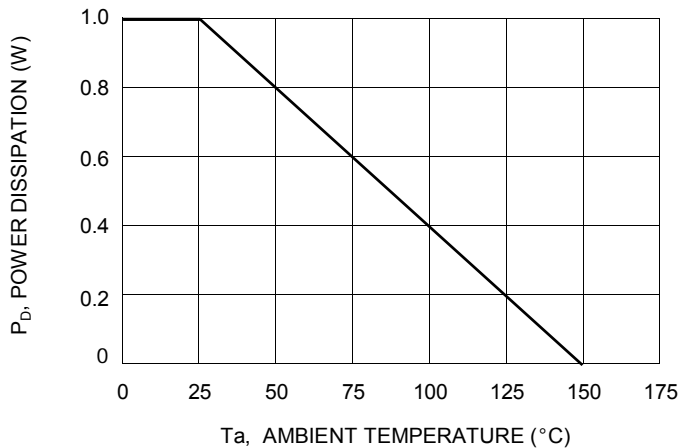
SILICON ZENER DIODES



MAXIMUM RATINGS (Ta = 25 °C)

Rating	Symbol	Value	Unit
Power Dissipation	P _D	1.0	W
Maximum Forward Voltage at I _F = 200 mA	V _F	p/n 1Z6.2 to 1Z180 1.2	V
		p/n 1Z330 to 1Z390 2.0	
Operating Junction Temperature Range	T _J	- 40 to + 150	°C
Storage Temperature Range	T _{STG}	- 40 to + 150	°C

Fig. 1 POWER TEMPERATURE DERATING CURVE





ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

Type No.	Zener Voltage			Test Current	Zener Impedance		Maximum Reverse Current		Temperature Coefficient of Zener Voltage	
	V _Z (V) @ I _{ZT}			I _{ZT}	Z _{ZT} @ I _{ZT}		I _R @ V _R		αT (mV/°C)	
	Min.	Nom.	Max	(mA)	(Ω)	(mA)	(μA)	(V)	Typ.	Max.
1Z6.2	5.6	6.2	6.8	10	60	10	10	3.0	1.5	2
1Z6.8	6.2	6.8	7.4	10	60	10	10	2.0	3	4
1Z6.8A	6.45	6.8	7.14							
1Z7.5	6.8	7.5	8.3	10	30	10	10	4.5	4	5
1Z7.5A	7.13	7.5	7.87							
1Z8.2	7.4	8.2	9.1	10	30	10	10	4.9	4	6
1Z8.2A	7.79	8.2	8.61							
1Z9.1	8.2	9.1	10.1	10	30	10	10	5.5	5	8
1Z9.1A	8.65	9.1	9.55							
1Z10	9.0	10	11.0	10	30	10	10	6.0	6	9
1Z10A	9.5	10	10.5							
1Z11	9.9	11	12.1	10	30	10	10	7.0	7	11
1Z11A	10.5	11	11.5							
1Z12	10.8	12	13.2	10	30	10	10	8.0	8	13
1Z12A	11.4	12	12.6							
1Z13	11.7	13	14.3	10	30	10	10	9.0	9	14
1Z13A	12.4	13	13.6							
1Z15	13.5	15	16.5	10	30	10	10	10	11	17
1Z15A	14.3	15	15.8							
1Z16	14.4	16	17.6	10	30	10	10	11	12	19
1Z16A	15.2	16	16.8							
1Z18	16.2	18	19.8	10	30	10	10	13	14	23
1Z18A	17.1	18	18.9							
1Z20	18.0	20	22.0	10	30	10	10	14	16	26
1Z20A	19.0	20	21.0							
1Z22	19.8	22	24.2	10	30	10	10	16	18	28
1Z22A	20.9	22	23.1							
1Z24	216.0	24	26.4	10	30	10	10	17	20	32
1Z24A	22.8	24	25.2							
1Z27	24.3	27	29.7	10	30	10	10	19	23	36
1Z27A	25.7	27	28.3							
1Z30	27.0	30	33.0	10	30	10	10	21	25	40
1Z30A	28.5	30	31.5							
1Z33	29.7	33	36.3	10	30	10	10	26.4	26	41
1Z36	32.7	36	39.6	9	30	9	10	28.8	28	45
1Z43	38.7	43	47.3	7	40	7	10	34.4	33	53
1Z47	42.3	47	51.7	6	65	6	10	37.6	38	60
1Z51	45.9	51	56.1	6	65	6	10	40.8	43	68
1Z68	61.2	68	74.8	4	120	4	10	54.4	57	90
1Z75	67.5	75	82.5	4	150	4	10	60.0	66	104
1Z82	73.8	82	90.2	3	170	3	10	65.4	71	113
1Z100	90.0	100	110	3	300	3	10	80.0	87	138
1Z110	99.0	110	121	3	300	3	10	88.0	96	152
1Z150	135	150	165	2	450	2	10	120	136	212
1Z180	162	180	198	1.5	500	1.5	10	144	161	255
1Z330	297	330	363	1.0	5000	1.0	10	264	297	472
1Z390	351	390	429	0.5	10000	0.5	10	312	350	555

RATING AND CHARACTERISTIC CURVES (1Z6.2 - 1Z390)

Fig. 2 - Temperature Coefficient of Zener Voltage vs. Zener Voltage

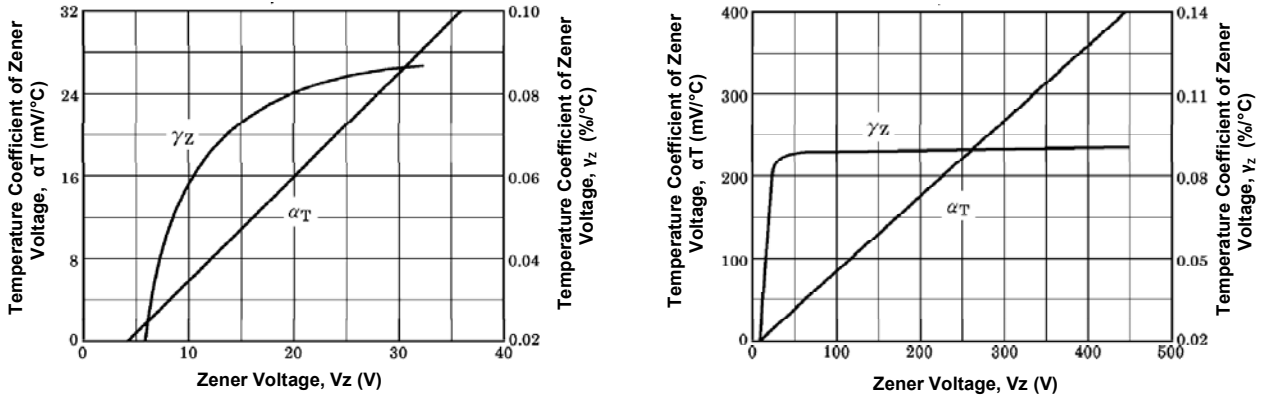


Fig. 3 - Non-Repetitive Peak Reverse Power Dissipation vs. Pulse Width (1Z6.2 ~ 1Z30, 1Z6.8A ~ 1Z30A)

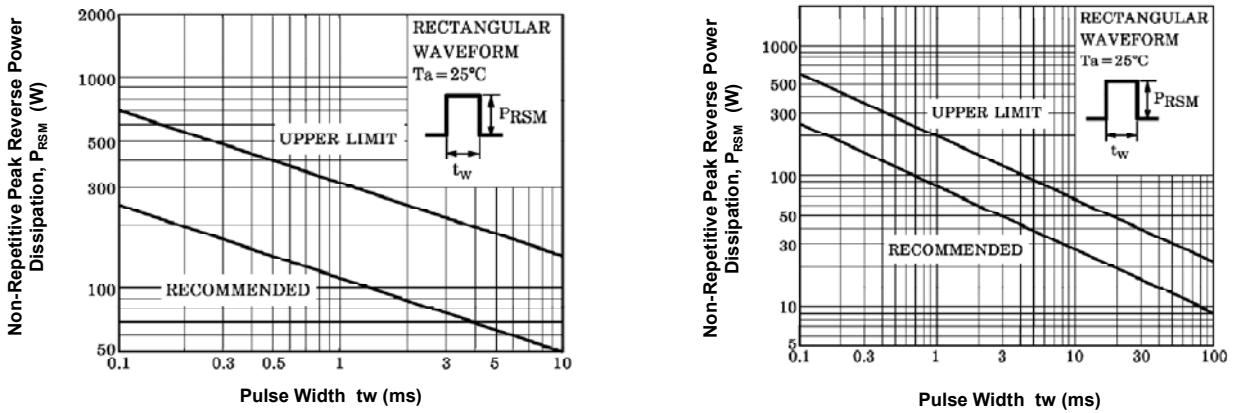


Fig. 4 - Transient Thermal Impedance vs. Time

