

1DZ3.3 thru 1DZ100

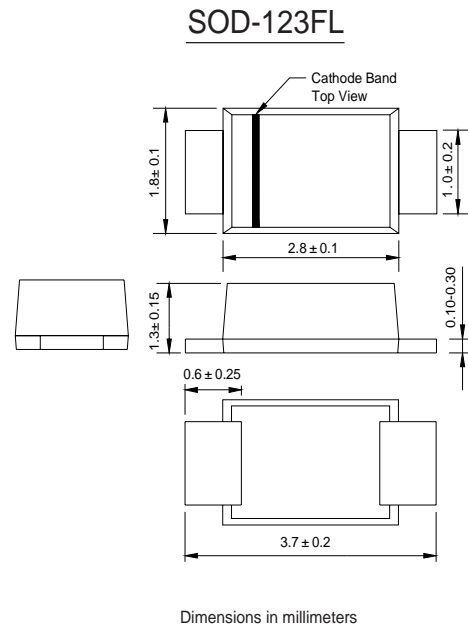
Glass Passivated Zener

Features

- For surface mounted applications in order to optimize board space
- Low profile space
- Glass passivated chip
- High reliability
- Typical I_R less than $1\mu A$ at V_R
- For use in stabilizing and clipping circuits with high power rating.
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

Mechanical Date

- Case: JEDEC SOD-123FL molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750 Method 2026
- Polarity: types the band by laser denotes the cathode



Applications

- Voltage stabilization

Maximum Ratings & Thermal Characteristics

($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

	Symbol	VALUE	UNIT
power dissipation	P	1	W
Forward voltage@ $I_F=200\text{mA}$	V_F	1.2	V
Junction temperature	T_J	150	$^\circ\text{C}$
storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics

T_A =25°C unless otherwise noted.

DEVICE House No. ⁽¹⁾	Zener Voltage			Zener Impedance			Leakage Current		I _{ZM}	
	V _Z (Volts)			@I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _R @V _R			
	Min	Nom	Max	mA	Ω	Ω	mA	uA	Volts	mA(dc)
1DZ3.3	3.13	3.3	3.47	76	10	400	1.0	100	1.0	276
1DZ3.6	3.42	3.6	3.78	69	10	400	1.0	100	1.0	252
1DZ3.9	3.70	3.9	4.10	64	9	400	1.0	50	1.0	234
1DZ4.3	4.08	4.3	4.52	58	9	400	1.0	10	1.0	217
1DZ4.7	4.46	4.7	4.94	53	8	500	1.0	10	1.0	193
1DZ5.1	4.84	5.1	5.36	49	7	550	1.0	10	1.0	178
1DZ5.6	5.32	5.6	5.88	45	5	600	1.0	10	2.0	162
1DZ6.2	5.89	6.2	6.51	41	2	700	1.0	10	3.0	146
1DZ6.8	6.46	6.8	7.14	37	3.5	700	1.0	10	4.0	133
1DZ7.5	7.12	7.5	7.88	34	4.0	700	0.5	10	5.0	121
1DZ8.2	7.79	8.2	8.61	31	4.5	700	0.5	10	6.0	110
1DZ9.1	8.64	9.1	9.56	28	5.0	700	0.5	10	7.0	100
1DZ10	9.5	10	10.5	25	7	700	0.25	10	7.6	91
1DZ11	10.45	11	11.55	23	8	700	0.25	5	8.4	83
1DZ12	11.4	12	12.6	21	9	700	0.25	5	9.1	76
1DZ13	12.35	13	13.65	19	10	700	0.25	5	9.9	69
1DZ15	14.25	15	15.75	17	14	700	0.25	5	11.4	61
1DZ16	15.2	16	16.8	15.5	16	700	0.25	5	12.2	57
1DZ18	17.1	18	18.9	14	20	750	0.25	5	13.7	50
1DZ20	19	20	21	12.5	22	750	0.25	5	15.2	45
1DZ22	20.9	22	23.1	11.5	23	750	0.25	5	16.7	41
1DZ24	22.8	24	25.2	10.5	25	750	0.25	5	18.2	38
1DZ27	25.65	27	28.35	9.5	35	750	0.25	5	20.6	34
1DZ30	28.5	30	31.5	8.5	40	1000	0.25	5	22.8	30
1DZ33	31.35	33	34.65	7.5	45	1000	0.25	5	25.1	27
1DZ36	34.2	36	37.8	7.0	50	1000	0.25	5	27.4	25
1DZ39	37.05	39	40.95	6.5	60	1000	0.25	5	29.7	23
1DZ43	40.85	43	45.15	6.0	70	1500	0.25	5	32.7	22
1DZ47	44.65	47	49.35	5.5	80	1500	0.25	5	35.8	19
1DZ51	48.45	51	53.55	5.0	95	1500	0.25	5	38.8	18
1DZ56	53.2	56	58.8	4.5	110	2000	0.25	5	42.6	16
1DZ62	58.9	62	65.1	4.0	125	2000	0.25	5	47.1	14
1DZ68	64.6	68	71.4	3.7	150	2000	0.25	5	51.7	13
1DZ75	71.25	75	78.75	3.3	175	2000	0.25	5	56.0	12
1DZ82	77.9	82	86.1	3.0	200	3000	0.25	5	62.2	11
1DZ91	86.45	91	95.55	2.8	250	3000	0.25	5	69.2	10
1DZ100	95	100	105	2.5	350	3000	0.25	5	76.0	9

1. TOLERANCE AND TYPE NUMBER DESIGNATION

The type numbers listed indicate a tolerance of ±5%. Other Zener voltages and tolerances are available upon request.

Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1A Range for Units to 12 Volts

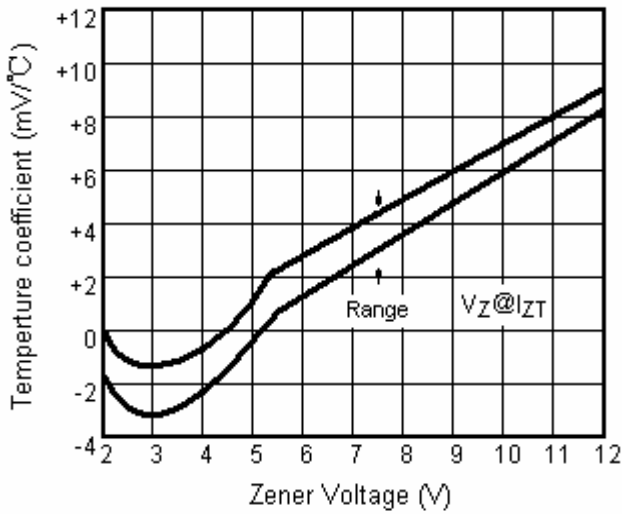


Fig.1B Range for Units to 12 To 100 Volts

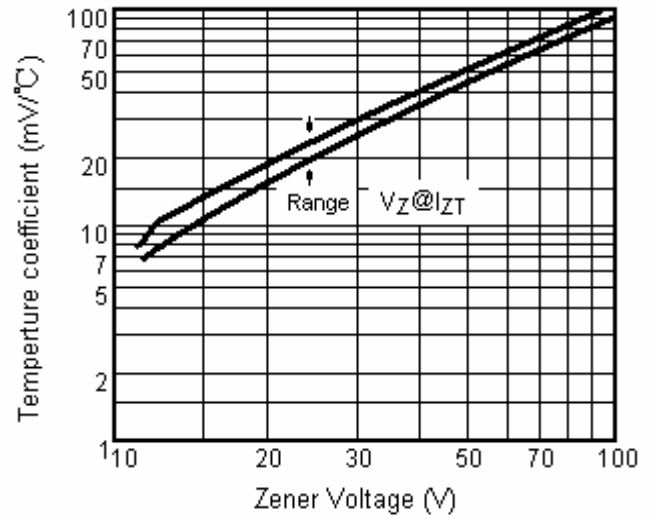


Fig.3 Typical Thermal Resistance V.S. Lead Length

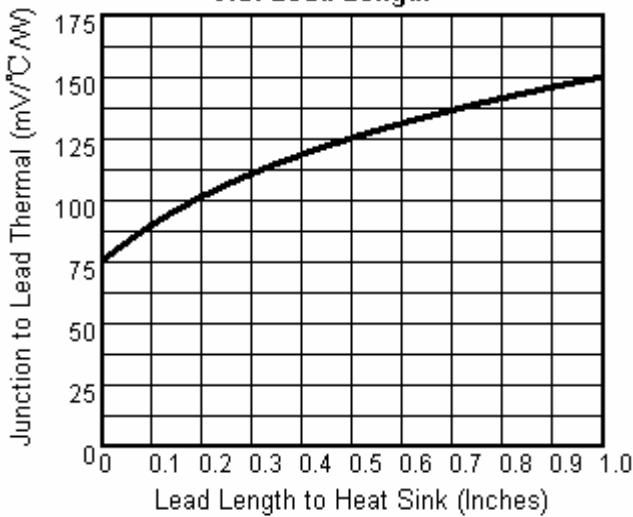


Fig.4 Effect of Zener Current

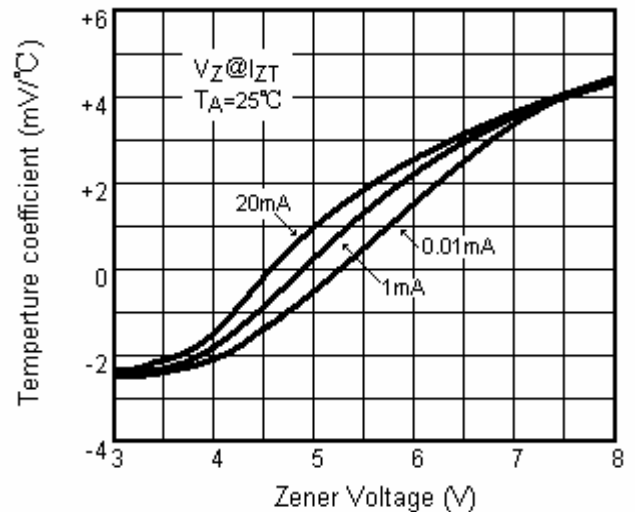


Fig.6 Effect of Zener Current on Zener Impedance

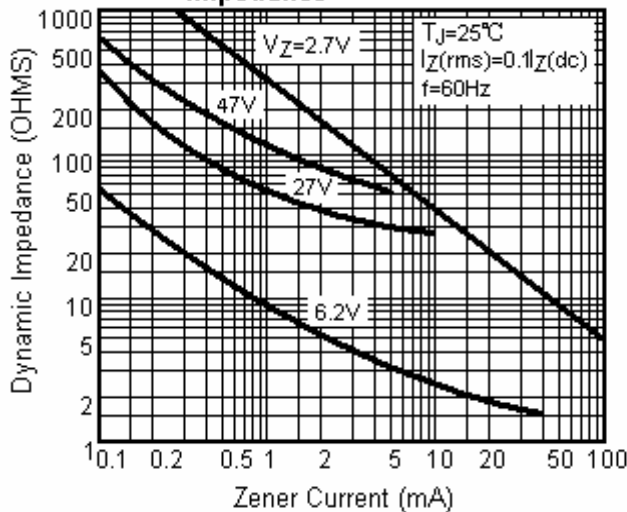


Fig.7 Effect of Zener Current on Zener Impedance

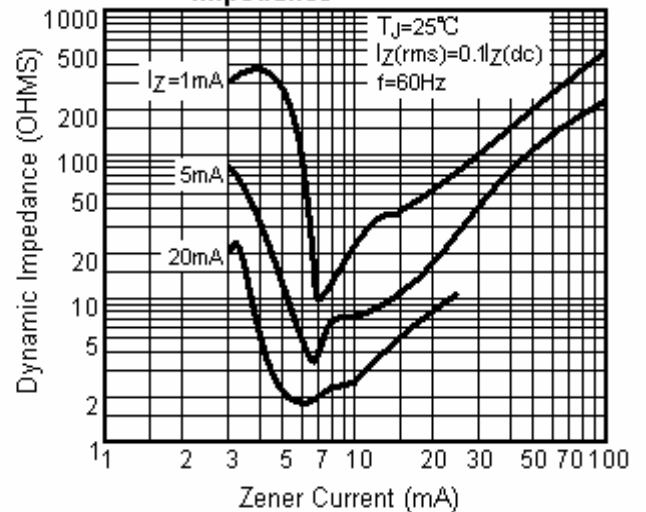


Fig.8 Power Temperature Derating Curve

