BZV55 Series

SILICON PLANAR ZENER DIODES

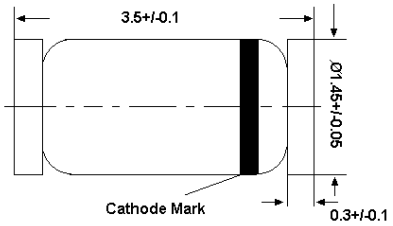
Applications

• Low voltage stabilizers or voltage references

Features

• Total power dissipation: max. 500 mW
• Two tolerance series: ± 2% and approx. ± 5%

LL-34



Glass case MiniMELF
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 [1]	mW
Junction and Storage Temperature Range	T_j, T_S	- 65 to + 200	°C
[1] Valid provided that electrodes are kept at ambient temperature.			

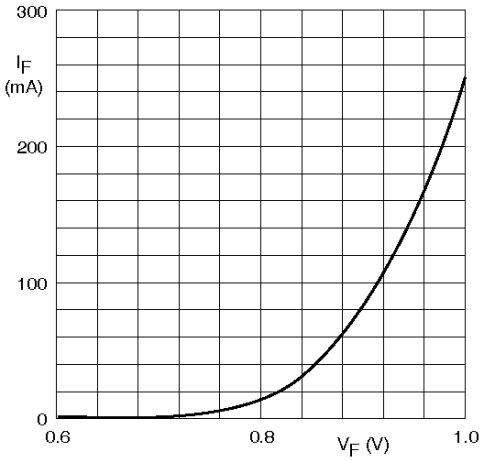
Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 [1]	K/mW
Forward Voltage at I_F = 10 mA	V_F	0.9	V
[1] Valid provided that electrodes are kept at ambient temperature.			

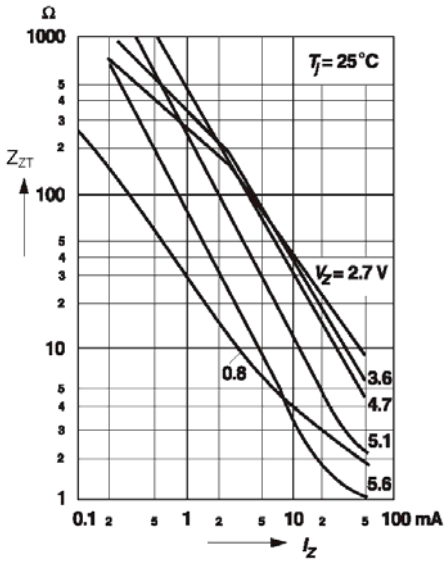
Characteristics at T_j = 25 °C

BZV55B… or BZV55C…	Zener Voltage Range [1]			Dynamic Resistance			Reverse Current	
	V_{ZT} (V)		I_{ZT} (mA)	Z_{ZT} at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
	BZV55B (Tol. ± 2%)	BZV55C (Tol. ± 5%)		Max. (Ω)	Max. (Ω)	mA	Max. (µA)	(V)
2V4	2.35…2.45	2.2…2.6	5	100	600	1	50	1
2V7	2.65…2.75	2.5…2.9	5	100	600	1	20	1
3V0	2.94…3.06	2.8…3.2	5	95	600	1	10	1
3V3	3.23…3.37	3.1…3.5	5	95	600	1	5	1
3V6	3.53…3.67	3.4…3.8	5	90	600	1	5	1
3V9	3.82…3.98	3.7…4.1	5	90	600	1	3	1
4V3	4.21…4.39	4…4.6	5	90	600	1	3	1
4V7	4.61…4.79	4.4…5	5	80	500	1	3	2
5V1	5…5.2	4.8…5.5	5	60	480	1	2	2
5V6	5.49…5.71	5.2…6	5	40	400	1	1	2
6V2	6.08…6.32	5.8…6.6	5	10	150	1	3	4
6V8	6.66…6.94	6.4…7.2	5	15	80	1	2	4
7V5	7.35…7.65	7…7.9	5	15	80	1	1	5
8V2	8.04…8.36	7.7…8.7	5	15	80	1	0.7	5
9V1	8.92…9.28	8.5…9.6	5	15	100	1	0.5	6
10	9.8…10.2	9.4…10.6	5	20	150	1	0.2	7
11	10.8…11.2	10.4…11.6	5	20	150	1	0.1	8
12	11.8…12.2	11.4…12.7	5	25	150	1	0.1	8
13	12.7…13.3	12.4…14.1	5	30	170	1	0.1	8
15	14.7…15.3	13.8…15.6	5	30	200	1	0.05	10
16	15.7…16.3	15.3…17.1	5	40	200	1	0.05	11
18	17.6…18.4	16.8…19.1	5	45	225	1	0.05	13
20	19.6…20.4	18.8…21.2	5	55	225	1	0.05	14
22	21.6…22.4	20.8…23.3	5	55	250	1	0.05	15
24	23.5…24.5	22.8…25.6	5	70	250	1	0.05	17
27	26.5…27.5	25.1…28.9	2	80	300	0.5	0.05	19
30	29.4…30.6	28…32	2	80	300	0.5	0.05	21
33	32.3…33.7	31…35	2	80	325	0.5	0.05	23
36	35.3…36.7	34…38	2	90	350	0.5	0.05	25
39	38.2…39.8	37…41	2	130	350	0.5	0.05	27
43	42.1…43.9	40…46	2	150	375	0.5	0.05	30
47	46.1…47.9	44…50	2	170	375	0.5	0.05	33
51	50…52	48…54	2	180	400	0.5	0.05	36
56	54.9…57.1	52…60	2	200	425	0.5	0.05	39
62	60.8…63.2	58…66	2	215	450	0.5	0.05	43
68	66.6…69.4	64…72	2	240	475	0.5	0.05	48
75	73.5…76.5	70…79	2	255	500	0.5	0.05	53

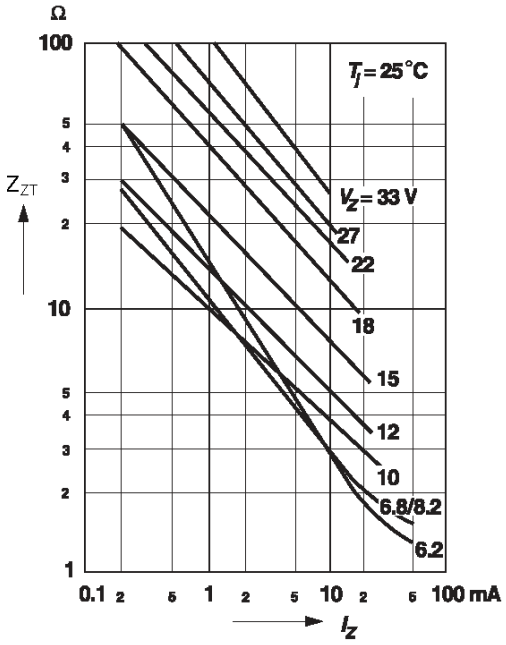
[1] Tested with pulses t_p = 20 ms.



Typical forward current as a function of forward voltage



Dynamic resistance versus Zener current



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