



FUKUCOM COMPANY LTD.

福靈有限公司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

BZV55 Series

SILICON PLANAR ZENER DIODES

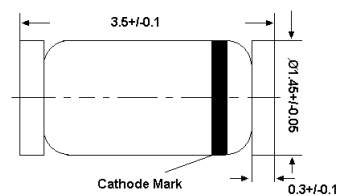
Applications

- Low voltage stabilizers or voltage references

Features

- Total power dissipation: max. 500 mW
- Two tolerance series: $\pm 2\%$ and approx. $\pm 5\%$

LL-34



Glass case MiniMELF
Dimensions in mm

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

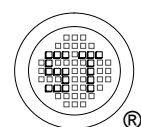
| Parameter | Symbol | Value | Unit |
|--|------------|-------------------|------------------|
| Power Dissipation | P_{tot} | 500 ¹⁾ | mW |
| Junction and Storage Temperature Range | T_j, T_s | - 65 to + 200 | $^\circ\text{C}$ |

¹⁾ Valid provided that electrodes are kept at ambient temperature.

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

| Parameter | Symbol | Max. | Unit |
|--|-----------|-------------------|------|
| Thermal Resistance Junction to Ambient Air | R_{thA} | 0.3 ¹⁾ | K/mW |
| Forward Voltage at $I_F = 10\text{ mA}$ | V_F | 0.9 | V |

¹⁾ Valid provided that electrodes are kept at ambient temperature.



Dated : 05/01/2008



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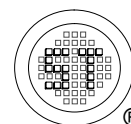
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BZV55 Series

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

| BZV55B... or BZV55C... | Zener Voltage Range ¹⁾ | | | Dynamic Resistance | | | Reverse Current | |
|------------------------------|-----------------------------------|--------------------------|---------------|----------------------|-------------------------------|-------------------|---------------------------------|-----------------|
| | V_{ZT} (V) | | I_{ZT} (mA) | Z_{ZT} at I_{ZT} | | at I_{ZK} mA | I_R Max. (μA) | at V_R (V) |
| | BZV55B (Tol. $\pm 2\%$) | BZV55C (Tol. $\pm 5\%$) | | Max. (Ω) | Z_{ZK} Max. (Ω) | | | |
| 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 $t_p = 20\text{ ms}$.





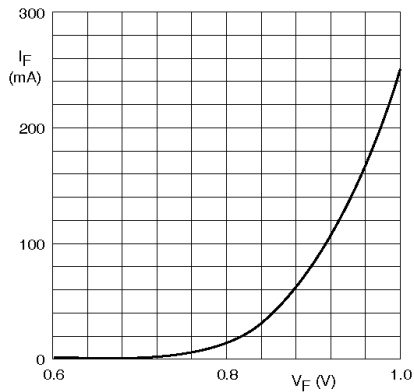
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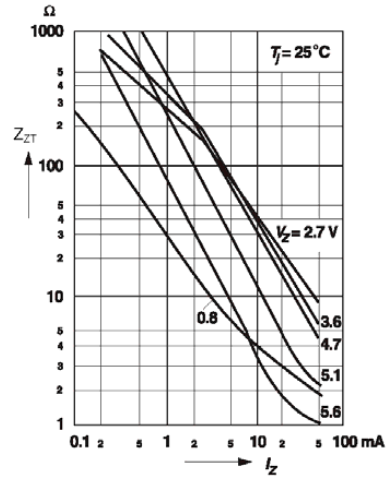
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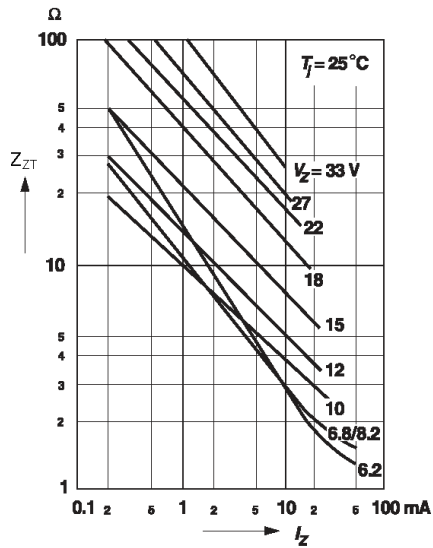
BZV55 Series



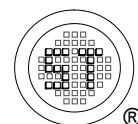
Typical forward current as a function of forward voltage



Dynamic resistance versus Zener current



Dynamic resistance versus Zener current



Dated : 05/01/2008