

Z-Diodes

Features

- Very sharp reverse characteristic
- Low reverse current level
- Available with tighter tolerances
- Very high stability
- Low noise
- Silicon Epitaxial Planar
- High reliability



Applications

Voltage stabilization

Order Instruction

| Type | Ordering Code | Remarks |
|--------|---------------|----------------------------|
| TLZ2V4 | TLZ2V4-GS08 | Tape and Reel (2.500 pcs) |
| | TLZ2V4-GS18 | Tape and Reel (10.000 pcs) |

Absolute Maximum Ratings

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

| Parameter | Test Conditions | Type | Symbol | Value | Unit |
|---------------------------|-------------------------------|------|-----------|------------|------------------|
| Power dissipation | $R_{thJA} \leq 300\text{K/W}$ | | P_V | 500 | mW |
| Z-current | | | I_Z | P_V/V_Z | mA |
| Junction temperature | | | T_j | 175 | $^\circ\text{C}$ |
| Storage temperature range | | | T_{stg} | -65...+175 | $^\circ\text{C}$ |

Maximum Thermal Resistance

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

| Parameter | Test Conditions | Symbol | Value | Unit |
|------------------|--------------------------------|------------|-------|------|
| Junction ambient | on PC board 50 mmx50 mmx1.6 mm | R_{thJA} | 500 | K/W |

Electrical Characteristics

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

| Parameter | Test Conditions | Type | Symbol | Min | Typ | Max | Unit |
|-----------------|--------------------|------|--------|-----|-----|-----|------|
| Forward voltage | $I_F=200\text{mA}$ | | V_F | | | 1.5 | V |



| Type | V _{Zmin} | V _{Zmax} | at I _Z | Z _{Zmax} | at I _Z | Z _{ZKmax} | at I _Z | I _{Rmax} | at V _R | I _{Rmax} ²⁾ | at V _R ²⁾ | Body Marking |
|---------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|---------------------------------|---------------------------------|--------------|
| | (V) | (V) | (mA) | (Ω) | (mA) | (Ω) | (mA) | (μA) | (V) | (μA) | (V) | |
| TLZ2V4 | 2.330 | 2.630 | 20 | 100 | 20 | 2000 | 1 | 120 | 1.0 | 70 | 0.8 | 2V4 |
| TLZ2V4A | 2.330 | 2.520 | 20 | 100 | 20 | 2000 | 1 | 120 | 1.0 | 70 | 0.8 | 2A4 |
| TLZ2V4B | 2.430 | 2.630 | 20 | 100 | 20 | 2000 | 1 | 120 | 1.0 | 70 | 0.8 | 2B4 |
| TLZ2V7 | 2.540 | 2.910 | 20 | 100 | 20 | 1000 | 1 | 100 | 1.0 | 70 | 0.8 | 2V7 |
| TLZ2V7A | 2.540 | 2.750 | 20 | 100 | 20 | 1000 | 1 | 100 | 1.0 | 70 | 0.8 | 2A7 |
| TLZ2V7B | 2.690 | 2.910 | 20 | 100 | 20 | 1000 | 1 | 100 | 1.0 | 70 | 0.8 | 2B7 |
| TLZ3V0 | 2.850 | 3.220 | 20 | 80 | 20 | 1000 | 1 | 50 | 1.0 | 70 | 0.8 | 3V0 |
| TLZ3V0A | 2.850 | 3.070 | 20 | 80 | 20 | 1000 | 1 | 50 | 1.0 | 70 | 0.8 | 3A0 |
| TLZ3V0B | 3.010 | 3.220 | 20 | 80 | 20 | 1000 | 1 | 50 | 1.0 | 20 | 0.8 | 3B0 |
| TLZ3V3 | 3.160 | 3.530 | 20 | 70 | 20 | 1000 | 1 | 20 | 1.0 | 20 | 0.8 | 3V3 |
| TLZ3V3A | 3.160 | 3.380 | 20 | 70 | 20 | 1000 | 1 | 20 | 1.0 | 20 | 0.8 | 3A3 |
| TLZ3V3B | 3.320 | 3.530 | 20 | 70 | 20 | 1000 | 1 | 20 | 1.0 | 20 | 0.8 | 3B3 |
| TLZ3V6 | 3.455 | 3.845 | 20 | 60 | 20 | 1000 | 1 | 10 | 1.0 | 6 | 0.8 | 3V6 |
| TLZ3V6A | 3.455 | 3.695 | 20 | 60 | 20 | 1000 | 1 | 10 | 1.0 | 6 | 0.8 | 3A6 |
| TLZ3V6B | 3.600 | 3.845 | 20 | 60 | 20 | 1000 | 1 | 10 | 1.0 | 6 | 0.8 | 3B6 |
| TLZ3V9 | 3.74 | 4.16 | 20 | 50 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 3V9 |
| TLZ3V9A | 3.74 | 4.01 | 20 | 50 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 3A9 |
| TLZ3V9B | 3.89 | 4.16 | 20 | 50 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 3B9 |
| TLZ4V3 | 4.04 | 4.57 | 20 | 40 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 4V3 |
| TLZ4V3A | 4.04 | 4.29 | 20 | 40 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 4A3 |
| TLZ4V3B | 4.17 | 4.43 | 20 | 40 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 4B3 |
| TLZ4V3C | 4.30 | 4.57 | 20 | 40 | 20 | 1000 | 1 | 5 | 1.0 | 3 | 0.8 | 4C3 |
| TLZ4V7 | 4.44 | 4.93 | 20 | 25 | 20 | 900 | 1 | 5 | 1.0 | 1.5 | 0.8 | 4V7 |
| TLZ4V7A | 4.44 | 4.68 | 20 | 25 | 20 | 900 | 1 | 5 | 1.0 | 1.5 | 0.8 | 4A7 |
| TLZ4V7B | 4.55 | 4.80 | 20 | 25 | 20 | 900 | 1 | 5 | 1.0 | 1.5 | 0.8 | 4B7 |
| TLZ4V7C | 4.68 | 4.93 | 20 | 25 | 20 | 900 | 1 | 5 | 1.0 | 1.5 | 0.8 | 4C7 |
| TLZ5V1 | 4.81 | 5.37 | 20 | 20 | 20 | 800 | 1 | 5 | 1.5 | 0.5 | 1.0 | 5V1 |
| TLZ5V1A | 4.81 | 5.07 | 20 | 20 | 20 | 800 | 1 | 5 | 1.5 | 0.5 | 1.0 | 5A1 |
| TLZ5V1B | 4.94 | 5.20 | 20 | 20 | 20 | 800 | 1 | 5 | 1.5 | 0.5 | 1.0 | 5B1 |
| TLZ5V1C | 5.09 | 5.37 | 20 | 20 | 20 | 800 | 1 | 5 | 1.5 | 0.1 | 1.0 | 5C1 |
| TLZ5V6 | 5.28 | 5.91 | 20 | 13 | 20 | 500 | 1 | 5 | 2.5 | 0.1 | 1.0 | 5V6 |
| TLZ5V6A | 5.28 | 5.55 | 20 | 13 | 20 | 500 | 1 | 5 | 2.5 | 0.1 | 1.0 | 5A6 |
| TLZ5V6B | 5.45 | 5.73 | 20 | 13 | 20 | 500 | 1 | 5 | 2.5 | 0.1 | 1.0 | 5B6 |
| TLZ5V6C | 5.61 | 5.91 | 20 | 13 | 20 | 500 | 1 | 5 | 2.5 | 0.1 | 1.0 | 5C6 |



| Type | V _{Zmin} | V _{Zmax} | at I _Z | Z _{Zmax} | at I _Z | Z _{ZKmax} | at I _Z | I _{Rmax} | at V _R | I _{Rmax} ²⁾ | at V _R ²⁾ | Body Marking |
|---------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|---------------------------------|---------------------------------|--------------|
| | (V) | (V) | (mA) | (Ω) | (mA) | (Ω) | (mA) | (μA) | (V) | (μA) | (V) | |
| TLZ6V2 | 5.78 | 6.44 | 20 | 10 | 20 | 300 | 1 | 5 | 3.0 | 0.1 | 1.0 | 6V2 |
| TLZ6V2A | 5.78 | 6.09 | 20 | 10 | 20 | 300 | 1 | 5 | 3.0 | 0.1 | 1.0 | 6A2 |
| TLZ6V2B | 5.96 | 6.27 | 20 | 10 | 20 | 300 | 1 | 5 | 3.0 | 0.1 | 2.0 | 6B2 |
| TLZ6V2C | 6.12 | 6.44 | 20 | 10 | 20 | 300 | 1 | 5 | 3.0 | 0.1 | 2.0 | 6C2 |
| TLZ6V8 | 6.29 | 7.01 | 20 | 8 | 20 | 150 | 0.5 | 2 | 3.5 | 0.1 | 2.0 | 6V8 |
| TLZ6V8A | 6.29 | 6.63 | 20 | 8 | 20 | 150 | 0.5 | 2 | 3.5 | 0.1 | 2.0 | 6A8 |
| TLZ6V8B | 6.49 | 6.83 | 20 | 8 | 20 | 150 | 0.5 | 2 | 3.5 | 0.1 | 3.0 | 6B8 |
| TLZ6V8C | 6.66 | 7.01 | 20 | 8 | 20 | 150 | 0.5 | 2 | 3.5 | 0.1 | 3.0 | 6C8 |
| TLZ7V5 | 6.85 | 7.67 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 4.0 | 0.1 | 3.0 | 7V5 |
| TLZ7V5A | 6.85 | 7.22 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 4.0 | 0.1 | 3.0 | 7A5 |
| TLZ7V5B | 7.07 | 7.45 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 4.0 | 0.1 | 4.0 | 7B5 |
| TLZ7V5C | 7.29 | 7.67 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 4.0 | 0.1 | 4.0 | 7C5 |
| TLZ8V2 | 7.53 | 8.45 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 5.0 | 0.1 | 4.0 | 8V2 |
| TLZ8V2A | 7.53 | 7.92 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 5.0 | 0.1 | 4.0 | 8A2 |
| TLZ8V2B | 7.78 | 8.19 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 5.0 | 0.1 | 4.0 | 8B2 |
| TLZ8V2C | 8.03 | 8.45 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 5.0 | 0.1 | 4.0 | 8C2 |
| TLZ9V1 | 8.29 | 9.30 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 6.0 | – | – | 9V1 |
| TLZ9V1A | 8.29 | 8.73 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 6.0 | – | – | 9A1 |
| TLZ9V1B | 8.57 | 9.01 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 6.0 | – | – | 9B1 |
| TLZ9V1C | 8.83 | 9.30 | 20 | 8 | 20 | 120 | 0.5 | 0.5 | 6.0 | – | – | 9C1 |
| TLZ10 | 9.12 | 10.44 | 20 | 8 | 20 | 120 | 0.5 | 0.2 | 7.0 | – | – | 10 |
| TLZ10A | 9.12 | 9.59 | 20 | 8 | 20 | 120 | 0.5 | 0.2 | 7.0 | – | – | 10A |
| TLZ10B | 9.41 | 9.90 | 20 | 8 | 20 | 120 | 0.5 | 0.2 | 7.0 | – | – | 10B |
| TLZ10C | 9.70 | 10.20 | 20 | 8 | 20 | 120 | 0.5 | 0.2 | 7.0 | – | – | 10C |
| TLZ10D | 9.94 | 10.44 | 20 | 8 | 20 | 120 | 0.5 | 0.2 | 7.0 | – | – | 10D |
| TLZ11 | 10.18 | 11.38 | 10 | 10 | 10 | 120 | 0.5 | 0.2 | 8.0 | – | – | 11 |
| TLZ11A | 10.18 | 10.71 | 10 | 10 | 10 | 120 | 0.5 | 0.2 | 8.0 | – | – | 11A |
| TLZ11B | 10.50 | 11.05 | 10 | 10 | 10 | 120 | 0.5 | 0.2 | 8.0 | – | – | 11B |
| TLZ11C | 10.82 | 11.38 | 10 | 10 | 10 | 120 | 0.5 | 0.2 | 8.0 | – | – | 11C |
| TLZ12 | 11.13 | 12.35 | 10 | 12 | 10 | 110 | 0.5 | 0.2 | 9.0 | – | – | 12 |
| TLZ12A | 11.13 | 11.71 | 10 | 12 | 10 | 110 | 0.5 | 0.2 | 9.0 | – | – | 12A |
| TLZ12B | 11.44 | 12.03 | 10 | 12 | 10 | 110 | 0.5 | 0.2 | 9.0 | – | – | 12B |
| TLZ12C | 11.74 | 12.35 | 10 | 12 | 10 | 110 | 0.5 | 0.2 | 9.0 | – | – | 12C |
| TLZ13 | 12.11 | 13.66 | 10 | 14 | 10 | 110 | 0.5 | 0.2 | 10 | – | – | 13 |
| TLZ13A | 12.11 | 12.75 | 10 | 14 | 10 | 110 | 0.5 | 0.2 | 10 | – | – | 13A |
| TLZ13B | 12.55 | 13.21 | 10 | 14 | 10 | 110 | 0.5 | 0.2 | 10 | – | – | 13B |
| TLZ13C | 12.99 | 13.66 | 10 | 14 | 10 | 110 | 0.5 | 0.2 | 10 | – | – | 13C |



| Type | V _{Zmin} | V _{Zmax.} | at I _Z | Z _{Zmax} | at I _Z | Z _{ZKmax.} | at I _Z | I _{Rmax.} | at V _R | I _{Rmax} ²⁾ | at V _R ²⁾ | Body Marking |
|--------|-------------------|--------------------|-------------------|-------------------|-------------------|---------------------|-------------------|--------------------|-------------------|---------------------------------|---------------------------------|--------------|
| | (V) | (V) | (mA) | (Ω) | (mA) | (Ω) | (mA) | (μA) | (V) | (μA) | (V) | |
| TLZ15 | 13.44 | 15.09 | 10 | 16 | 10 | 110 | 0.5 | 0.2 | 11 | – | – | 15 |
| TLZ15A | 13.44 | 14.13 | 10 | 16 | 10 | 110 | 0.5 | 0.2 | 11 | – | – | 15A |
| TLZ15B | 13.89 | 14.62 | 10 | 16 | 10 | 110 | 0.5 | 0.2 | 11 | – | – | 15B |
| TLZ15C | 14.35 | 15.09 | 10 | 16 | 10 | 110 | 0.5 | 0.2 | 11 | – | – | 15C |
| TLZ16 | 14.80 | 16.51 | 10 | 18 | 10 | 150 | 0.5 | 0.2 | 12 | – | – | 16 |
| TLZ16A | 14.80 | 15.57 | 10 | 18 | 10 | 150 | 0.5 | 0.2 | 12 | – | – | 16A |
| TLZ16B | 15.25 | 16.04 | 10 | 18 | 10 | 150 | 0.5 | 0.2 | 12 | – | – | 16B |
| TLZ16C | 15.69 | 16.51 | 10 | 18 | 10 | 150 | 0.5 | 0.2 | 12 | – | – | 16C |
| TLZ18 | 16.22 | 18.33 | 10 | 23 | 10 | 150 | 0.5 | 0.2 | 13 | – | – | 18 |
| TLZ18A | 16.22 | 17.06 | 10 | 23 | 10 | 150 | 0.5 | 0.2 | 13 | – | – | 18A |
| TLZ18B | 16.82 | 17.70 | 10 | 23 | 10 | 150 | 0.5 | 0.2 | 13 | – | – | 18B |
| TLZ18C | 17.42 | 18.33 | 10 | 23 | 10 | 150 | 0.5 | 0.2 | 13 | – | – | 18C |
| TLZ20 | 18.02 | 20.72 | 10 | 28 | 10 | 200 | 0.5 | 0.2 | 15 | – | – | 20 |
| TLZ20A | 18.02 | 18.96 | 10 | 28 | 10 | 200 | 0.5 | 0.2 | 15 | – | – | 20A |
| TLZ20B | 18.63 | 19.59 | 10 | 28 | 10 | 200 | 0.5 | 0.2 | 15 | – | – | 20B |
| TLZ20C | 19.23 | 20.22 | 10 | 28 | 10 | 200 | 0.5 | 0.2 | 15 | – | – | 20C |
| TLZ20D | 19.72 | 20.72 | 10 | 28 | 10 | 200 | 0.5 | 0.2 | 15 | – | – | 20D |
| TLZ22 | 20.15 | 22.63 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 17 | – | – | 22 |
| TLZ22A | 20.15 | 21.20 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 17 | – | – | 22A |
| TLZ22B | 20.64 | 21.71 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 17 | – | – | 22B |
| TLZ22C | 21.08 | 22.17 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 17 | – | – | 22C |
| TLZ22D | 21.52 | 22.63 | 5 | 30 | 5 | 200 | 0.5 | 0.2 | 17 | – | – | 22D |
| TLZ24 | 22.05 | 24.85 | 5 | 35 | 5 | 200 | 0.5 | 0.2 | 19 | – | – | 24 |
| TLZ24A | 22.05 | 23.18 | 5 | 35 | 5 | 200 | 0.5 | 0.2 | 19 | – | – | 24A |
| TLZ24B | 22.61 | 23.77 | 5 | 35 | 5 | 200 | 0.5 | 0.2 | 19 | – | – | 24B |
| TLZ24C | 23.12 | 24.31 | 5 | 35 | 5 | 200 | 0.5 | 0.2 | 19 | – | – | 24C |
| TLZ24D | 23.63 | 24.85 | 5 | 35 | 5 | 200 | 0.5 | 0.2 | 19 | – | – | 24D |
| TLZ27 | 24.26 | 27.64 | 5 | 45 | 5 | 250 | 0.5 | 0.2 | 21 | – | – | 27 |
| TLZ27A | 24.26 | 25.52 | 5 | 45 | 5 | 250 | 0.5 | 0.2 | 21 | – | – | 27A |
| TLZ27B | 24.97 | 26.26 | 5 | 45 | 5 | 250 | 0.5 | 0.2 | 21 | – | – | 27B |
| TLZ27C | 25.63 | 26.95 | 5 | 45 | 5 | 250 | 0.5 | 0.2 | 21 | – | – | 27C |
| TLZ27D | 26.29 | 27.64 | 5 | 45 | 5 | 250 | 0.5 | 0.2 | 21 | – | – | 27D |
| TLZ30 | 26.99 | 30.51 | 5 | 55 | 5 | 250 | 0.5 | 0.2 | 23 | – | – | 30 |
| TLZ30A | 26.99 | 28.39 | 5 | 55 | 5 | 250 | 0.5 | 0.2 | 23 | – | – | 30A |
| TLZ30B | 27.70 | 29.13 | 5 | 55 | 5 | 250 | 0.5 | 0.2 | 23 | – | – | 30B |
| TLZ30C | 28.36 | 29.82 | 5 | 55 | 5 | 250 | 0.5 | 0.2 | 23 | – | – | 30C |
| TLZ30D | 29.02 | 30.51 | 5 | 55 | 5 | 250 | 0.5 | 0.2 | 23 | – | – | 30D |

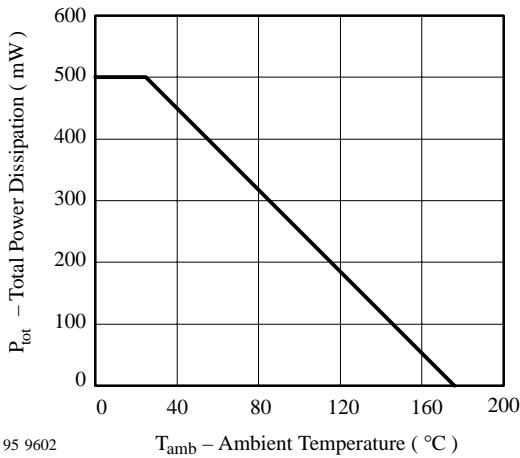


| Type | V _{Zmin} | V _{Zmax} | at I _Z | Z _{Zmax} | at I _Z | Z _{ZKmax} | at I _Z | I _{Rmax} | at V _R | I _{Rmax} ²⁾ | at V _R ²⁾ | Body Marking |
|--------|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|---------------------------------|---------------------------------|--------------|
| | (V) | (V) | (mA) | (Ω) | (mA) | (Ω) | (mA) | (μA) | (V) | (μA) | (V) | |
| TLZ33 | 29.68 | 33.11 | 5 | 65 | 5 | 250 | 0.5 | 0.2 | 25 | – | – | 33 |
| TLZ33A | 29.68 | 31.22 | 5 | 65 | 5 | 250 | 0.5 | 0.2 | 25 | – | – | 33A |
| TLZ33B | 30.32 | 31.88 | 5 | 65 | 5 | 250 | 0.5 | 0.2 | 25 | – | – | 33B |
| TLZ33C | 30.90 | 32.50 | 5 | 65 | 5 | 250 | 0.5 | 0.2 | 25 | – | – | 33C |
| TLZ33D | 31.49 | 33.11 | 5 | 65 | 5 | 250 | 0.5 | 0.2 | 25 | – | – | 33D |
| TLZ36 | 32.14 | 35.77 | 5 | 75 | 5 | 250 | 0.5 | 0.2 | 27 | – | – | 36 |
| TLZ36A | 32.14 | 33.79 | 5 | 75 | 5 | 250 | 0.5 | 0.2 | 27 | – | – | 36A |
| TLZ36B | 32.79 | 34.49 | 5 | 75 | 5 | 250 | 0.5 | 0.2 | 27 | – | – | 36B |
| TLZ36C | 33.40 | 35.13 | 5 | 75 | 5 | 250 | 0.5 | 0.2 | 27 | – | – | 36C |
| TLZ36D | 34.01 | 35.77 | 5 | 75 | 5 | 250 | 0.5 | 0.2 | 27 | – | – | 36D |
| TLZ39 | 34.68 | 40.80 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39 |
| TLZ39A | 34.68 | 36.47 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39A |
| TLZ39B | 35.36 | 37.19 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39B |
| TLZ39C | 36.00 | 37.85 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39C |
| TLZ39D | 36.63 | 38.52 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39D |
| TLZ39E | 37.36 | 39.29 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39E |
| TLZ39F | 38.14 | 40.11 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39F |
| TLZ39G | 38.94 | 40.80 | 5 | 85 | 5 | 250 | 0.5 | 0.2 | 30 | – | – | 39G |
| TLZ43 | 40.00 | 45.00 | 5 | 90 | 5 | – | – | 0.2 | 33 | – | – | 43 |
| TLZ47 | 44.00 | 49.00 | 5 | 90 | 5 | – | – | 0.2 | 36 | – | – | 47 |
| TLZ51 | 48.00 | 54.00 | 5 | 100 | 5 | – | – | 0.2 | 39 | – | – | 51 |
| TLZ56 | 53.00 | 60.00 | 5 | 100 | 5 | – | – | 0.2 | 43 | – | – | 56 |

2) Additional measurement

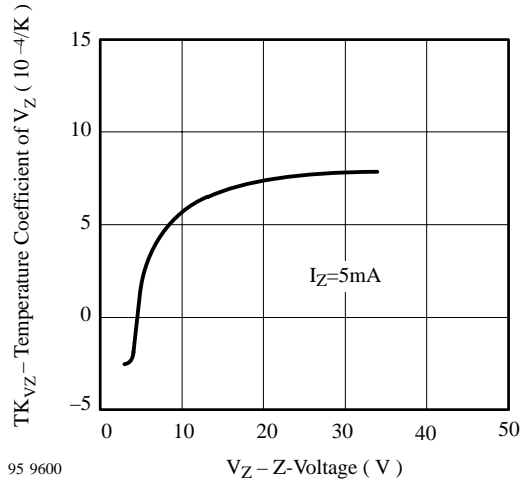
Please note: Additional measurement of voltage group 9V1 to 75 I_R at 95 % V_{Zmin} = < 35 nA at T_j 25 °C

Characteristics ($T_j = 25^\circ\text{C}$ unless otherwise specified)



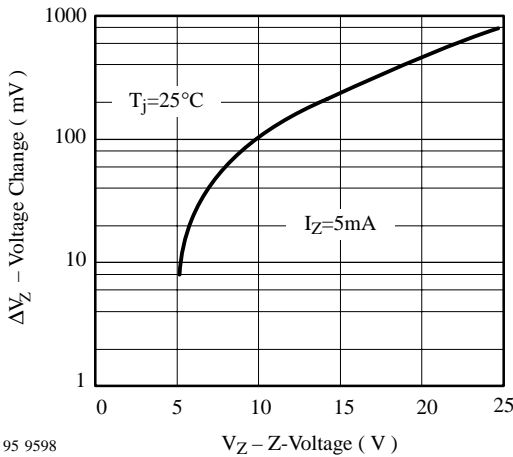
95 9602

Figure 1. Total Power Dissipation vs. Ambient Temperature



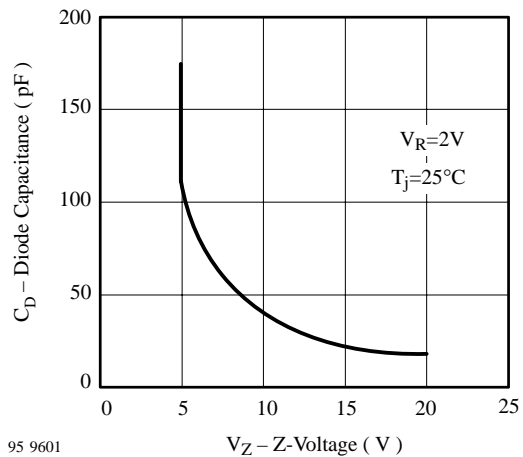
95 9600

Figure 4. Temperature Coefficient of V_Z vs. Z-Voltage



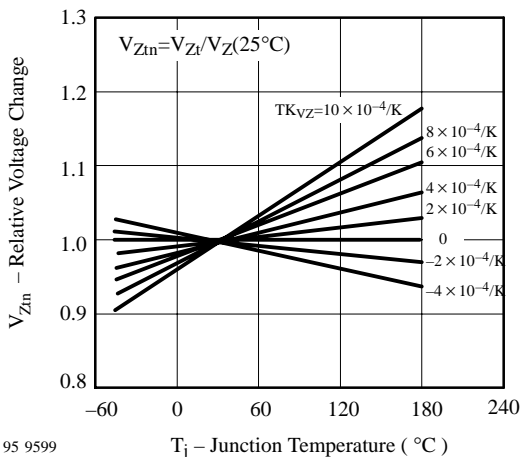
95 9598

Figure 2. Typical Change of Working Voltage under Operating Conditions at $T_{\text{amb}}=25^\circ\text{C}$



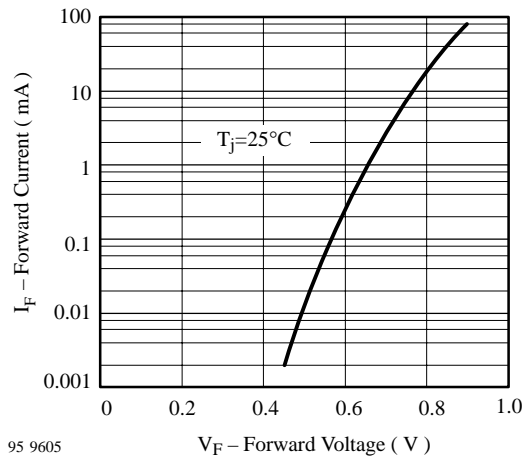
95 9601

Figure 5. Diode Capacitance vs. Z-Voltage



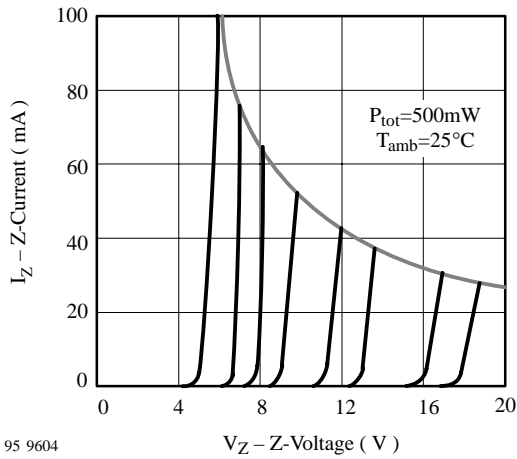
95 9599

Figure 3. Typical Change of Working Voltage vs. Junction Temperature



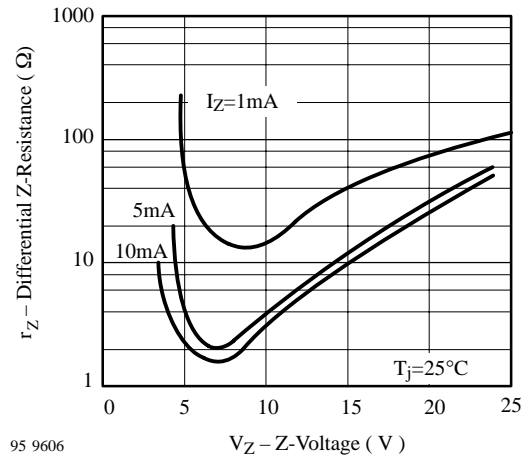
95 9605

Figure 6. Forward Current vs. Forward Voltage



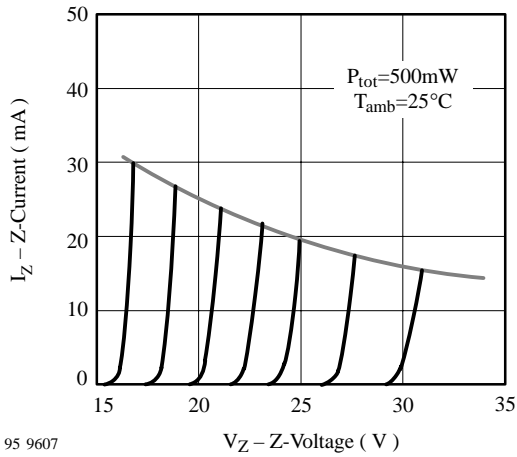
95 9604

Figure 7. Z-Current vs. Z-Voltage



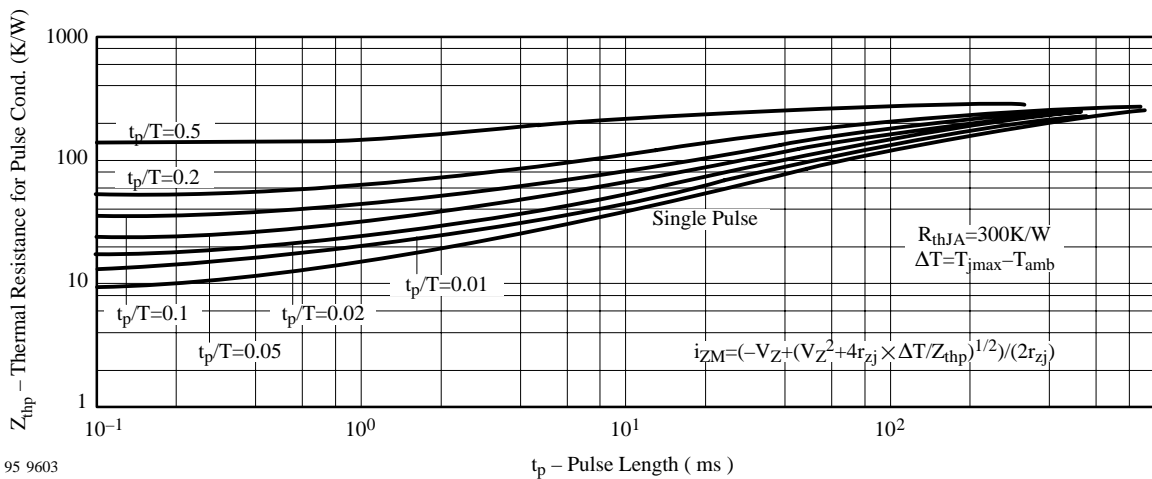
95 9606

Figure 9. Differential Z-Resistance vs. Z-Voltage



95 9607

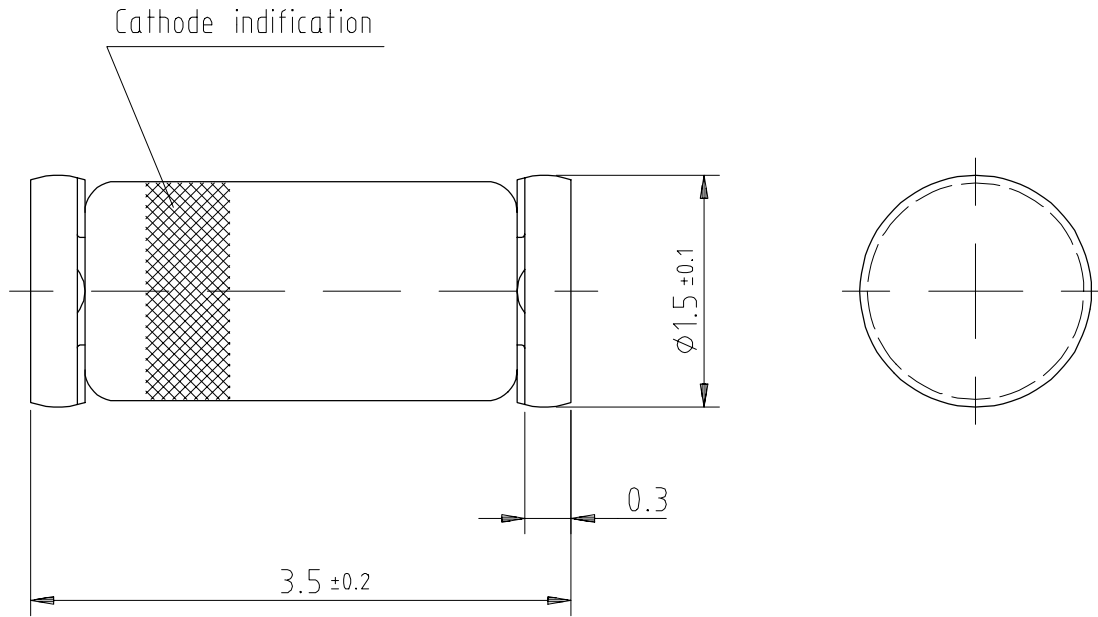
Figure 8. Z-Current vs. Z-Voltage



95 9603

Figure 10. Thermal Response

Dimensions in mm

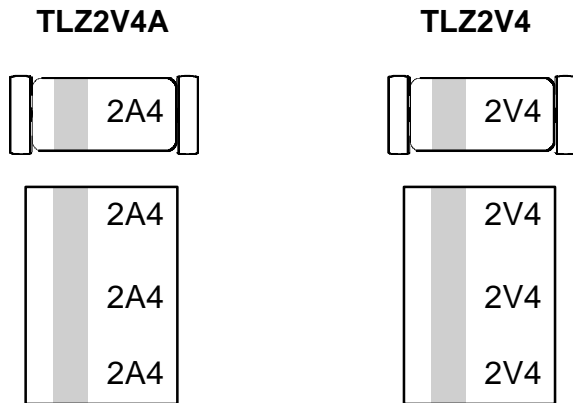


Glass case
Mini MELF / SOD 80
JEDEC DO 213 AA

96 12070

technical drawings
according to DIN
specifications

Marking Voltage Group



Remark: The Zener voltage TLZ2V4 or Zener voltage group TLZ2V4A is printed with max 3 digits 3 times on the surface. The marking should be readable at minimum 2 times. The third print is allowed to be incomplete due to tolerances in Diameter of the glassbody.



Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.
2. Regularly and continuously improve the performance of our products, processes, distribution and operating systems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. Should the buyer use Vishay Semiconductors products for any unintended or unauthorized application, the buyer shall indemnify Vishay Semiconductors against all claims, costs, damages, and expenses, arising out of, directly or indirectly, any claim of personal damage, injury or death associated with such unintended or unauthorized use.

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