

Z-Diode

TZM/C3V3

3,3V / 500mW

DATASHEET

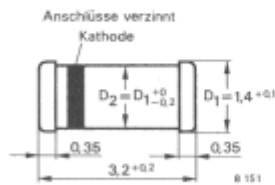
OEM – Telefunken

Source: Telefunken Databook 1988

TZM/C...

Silizium-Epitaxial-Planar-Z-Dioden**Anwendung: Spannungsstabilisierung****Besondere Merkmale:**

- Scharfer Abbruch der Sperrkennlinie
- Niedriges Sperrstromniveau
- Mit engeren Toleranzen lieferbar
- Sehr große Stabilität
- Geringes Rauschen

Abmessungen in mm

Glasgehäuse
SOD 80
MiniMELF
Gewicht max. 0,1 g

Absolute Grenzdaten

Verlustleistung

$R_{thJA} \leq 300 \text{ K/W}$

$P_V \quad 500 \quad \text{mW}$

Z-Strom

$I_Z \quad \frac{P_V}{U_Z} \quad \text{mA}$

Sperrschichttemperatur

$T_j \quad 175 \quad \text{°C}$

Lagerungstemperaturbereich

$T_{stg} \quad -65 \dots +175 \quad \text{°C}$

Maximaler Wärmewiderstand

Sperrschicht-Umgebung
auf Leiterplatte 50 mm x 50 mm x 1,6 mm

$R_{thJA} \quad 300 \quad \text{K/W}$

Kenngrößen $T_j = 25 \text{ °C}$, falls nicht anders angegeben**Min. Typ. Max.**

Durchlaßspannung

$I_F = 200 \text{ mA}$

$U_F \quad \quad \quad 1,5 \quad \text{V}$

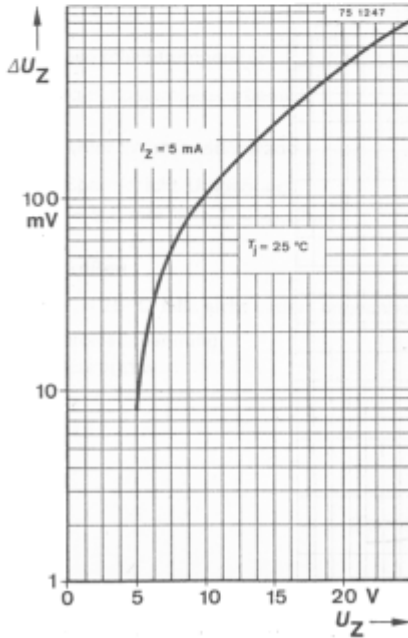
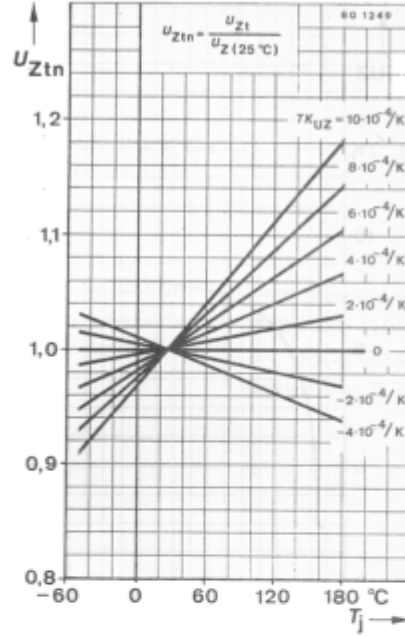
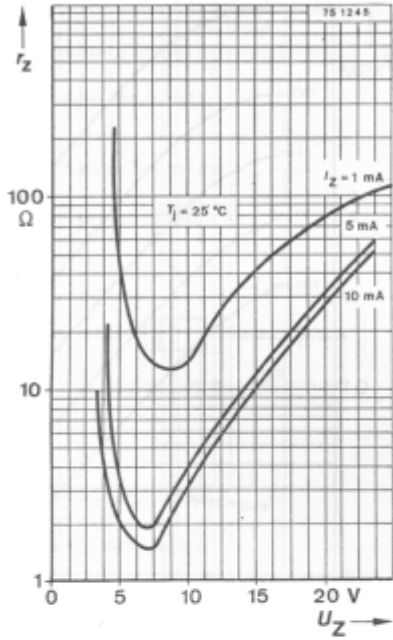
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| Typ | U_{Znom} | I_{ZT} | für $U_{ZT}^{1)}$ und r_{zIT} | | r_{zIK} bei I_{ZK} | | I_R und $I_R^{2)}$ bei U_R | | | TK_{UZ} %/K |
|-------------|------------|----------|---------------------------------|----------|------------------------|-----|--------------------------------|---------|-----|------------------|
| | V | | V | Ω | Ω | mA | μA | μA | V | |
| TZM/C 2 V 4 | 2,4 | 5 | 2,28...2,56 | < 85 | < 600 | 1 | < 100 | < 50 | 1 | -0,09...-0,06 |
| TZM/C 2 V 7 | 2,7 | 5 | 2,5...2,9 | < 85 | < 600 | 1 | < 10 | < 50 | 1 | -0,09...-0,06 |
| TZM/C 3 V 0 | 3,0 | 5 | 2,8...3,2 | < 85 | < 600 | 1 | < 4 | < 40 | 1 | -0,08...-0,05 |
| TZM/C 3 V 3 | 3,3 | 5 | 3,1...3,5 | < 85 | < 600 | 1 | < 2 | < 40 | 1 | -0,08...-0,05 |
| TZM/C 3 V 6 | 3,6 | 5 | 3,4...3,8 | < 85 | < 600 | 1 | < 2 | < 40 | 1 | -0,08...-0,05 |
| TZM/C 3 V 9 | 3,9 | 5 | 3,7...4,1 | < 85 | < 600 | 1 | < 2 | < 40 | 1 | -0,08...-0,05 |
| TZM/C 4 V 3 | 4,3 | 5 | 4,0...4,6 | < 75 | < 600 | 1 | < 1 | < 20 | 1 | -0,06...-0,03 |
| TZM/C 4 V 7 | 4,7 | 5 | 4,4...5,0 | < 60 | < 600 | 1 | < 0,5 | < 10 | 1 | -0,05...+0,02 |
| TZM/C 5 V 1 | 5,1 | 5 | 4,8...5,4 | < 35 | < 550 | 1 | < 0,1 | < 2 | 1 | -0,02...+0,02 |
| TZM/C 5 V 6 | 5,6 | 5 | 5,2...6,0 | < 25 | < 450 | 1 | < 0,1 | < 2 | 1 | -0,05...+0,05 |
| TZM/C 6 V 2 | 6,2 | 5 | 5,8...6,6 | < 10 | < 200 | 1 | < 0,1 | < 2 | 2 | 0,03...0,06 |
| TZM/C 6 V 8 | 6,8 | 5 | 6,4...7,2 | < 8 | < 150 | 1 | < 0,1 | < 2 | 3 | 0,03...0,07 |
| TZM/C 7 V 5 | 7,5 | 5 | 7,0...7,9 | < 7 | < 50 | 1 | < 0,1 | < 2 | 5 | 0,03...0,07 |
| TZM/C 8 V 2 | 8,2 | 5 | 7,7...8,7 | < 7 | < 50 | 1 | < 0,1 | < 2 | 6,2 | 0,03...0,08 |
| TZM/C 9 V 1 | 9,1 | 5 | 8,5...9,6 | < 10 | < 50 | 1 | < 0,1 | < 2 | 6,8 | 0,03...0,09 |
| TZM/C 10 | 10 | 5 | 9,4...10,6 | < 15 | < 70 | 1 | < 0,1 | < 2 | 7,5 | 0,03...0,1 |
| TZM/C 11 | 11 | 5 | 10,4...11,6 | < 20 | < 70 | 1 | < 0,1 | < 2 | 8,2 | 0,03...0,11 |
| TZM/C 12 | 12 | 5 | 11,4...12,7 | < 20 | < 90 | 1 | < 0,1 | < 2 | 9,1 | 0,03...0,11 |
| TZM/C 13 | 13 | 5 | 12,4...14,1 | < 26 | < 110 | 1 | < 0,1 | < 2 | 10 | 0,03...0,11 |
| TZM/C 15 | 15 | 5 | 13,8...15,6 | < 30 | < 110 | 1 | < 0,1 | < 2 | 11 | 0,03...0,11 |
| TZM/C 16 | 16 | 5 | 15,3...17,1 | < 40 | < 170 | 1 | < 0,1 | < 2 | 12 | 0,03...0,11 |
| TZM/C 18 | 18 | 5 | 16,8...19,1 | < 50 | < 170 | 1 | < 0,1 | < 2 | 13 | 0,03...0,11 |
| TZM/C 20 | 20 | 5 | 18,8...21,2 | < 55 | < 220 | 1 | < 0,1 | < 2 | 15 | 0,03...0,11 |
| TZM/C 22 | 22 | 5 | 20,8...23,3 | < 55 | < 220 | 1 | < 0,1 | < 2 | 16 | 0,04...0,12 |
| TZM/C 24 | 24 | 5 | 22,8...25,6 | < 80 | < 220 | 1 | < 0,1 | < 2 | 18 | 0,04...0,12 |
| TZM/C 27 | 27 | 5 | 25,1...28,9 | < 80 | < 220 | 1 | < 0,1 | < 2 | 20 | 0,04...0,12 |
| TZM/C 30 | 30 | 5 | 28...32 | < 80 | < 220 | 1 | < 0,1 | < 2 | 22 | 0,04...0,12 |
| TZM/C 33 | 33 | 5 | 31...35 | < 80 | < 220 | 1 | < 0,1 | < 2 | 24 | 0,04...0,12 |
| TZM/C 36 | 36 | 5 | 34...38 | < 80 | < 220 | 1 | < 0,1 | < 2 | 27 | 0,04...0,12 |
| TZM/C 39 | 39 | 2,5 | 37...41 | < 90 | < 500 | 1 | < 0,1 | < 5 | 30 | 0,04...0,12 |
| TZM/C 43 | 43 | 2,5 | 40...46 | < 90 | < 600 | 0,5 | < 0,1 | < 5 | 33 | 0,04...0,12 |
| TZM/C 47 | 47 | 2,5 | 44...50 | < 110 | < 700 | 0,5 | < 0,1 | < 5 | 36 | 0,04...0,12 |
| TZM/C 51 | 51 | 2,5 | 48...54 | < 125 | < 700 | 0,5 | < 0,1 | < 10 | 39 | 0,04...0,12 |
| TZM/C 56 | 56 | 2,5 | 52...60 | < 135 | < 1000 | 0,5 | < 0,1 | < 10 | 43 | 0,04...0,12 |
| TZM/C 62 | 62 | 2,5 | 58...66 | < 150 | < 1000 | 0,5 | < 0,1 | < 10 | 47 | 0,04...0,12 |
| TZM/C 68 | 68 | 2,5 | 64...72 | < 200 | < 1000 | 0,5 | < 0,1 | < 10 | 51 | 0,04...0,12 |
| TZM/C 75 | 75 | 2,5 | 70...79 | < 250 | < 1500 | 0,5 | < 0,1 | < 10 | 56 | 0,04...0,12 |

¹⁾ $\frac{t_p}{T} \leq 100$ ms, engere Toleranzen auf Anfrage;

²⁾ bei $T_j = 150$ °C

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Änderung der Z-Spannung vom Einschaltmoment an bis zum Erreichen des thermischen Gleichgewichts.

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