

Silicon Diode

BYT53G

400V / 1,5A

DATASHEET

OEM – Telefunken

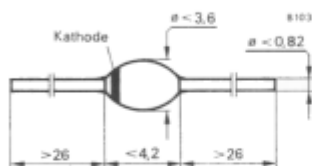
Source: Telefunken Databook 1988

BYT 53.**Silizium-Mesa-Dioden**

Anwendungen: Sehr schnelle Gleichrichter und Schalter

Beondere Merkmale:

- Glaspassivierte Sperrschicht
- Niedrige Sperrströme
- Hermetisch dichtes Gehäuse
- Soft-recovery-Verhalten

Abmessungen in mm

Sinterglasgehäuse
SOD 57
Gewicht max. 0,5 g

Bestempfung: Klartext

Absolute Grenzdaten

Sperrspannung, Spitzensperrspannung

| | | | |
|-----------------|-----------------|-----|---|
| BYT 53 A | $U_R = U_{RRM}$ | 50 | V |
| BYT 53 B | $U_R = U_{RRM}$ | 100 | V |
| BYT 53 C | $U_R = U_{RRM}$ | 150 | V |
| BYT 53 D | $U_R = U_{RRM}$ | 200 | V |
| BYT 53 F | $U_R = U_{RRM}$ | 300 | V |
| BYT 53 G | $U_R = U_{RRM}$ | 400 | V |

Stoßdurchlaßstrom

| | | | |
|-----------------------|-----------|----|---|
| $t_p = 10 \text{ ms}$ | I_{FSM} | 20 | A |
|-----------------------|-----------|----|---|

Durchlaßstrom, Mittelwert

| | | | |
|------------------------------------------|---------------------|---|---|
| $I = 10 \text{ mm}, T_L = 25 \text{ °C}$ | Fig. 2, 4 I_{FAV} | 1 | A |
|------------------------------------------|---------------------|---|---|

| | | | |
|--|------------------|-----|---|
| | Fig. 3 I_{FAV} | 1,5 | A |
|--|------------------|-----|---|

Sperrschichttemperatur

| | | | |
|--|-------|-----|----|
| | T_j | 175 | °C |
|--|-------|-----|----|

Lagerungstemperaturbereich

| | | | |
|--|-----------|---------------|----|
| | T_{stg} | - 65... + 175 | °C |
|--|-----------|---------------|----|

Maximale Wärmewiderstände

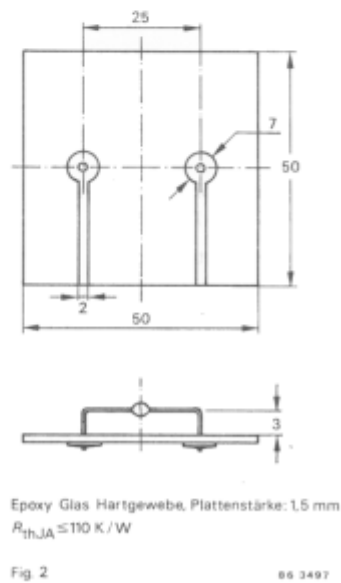
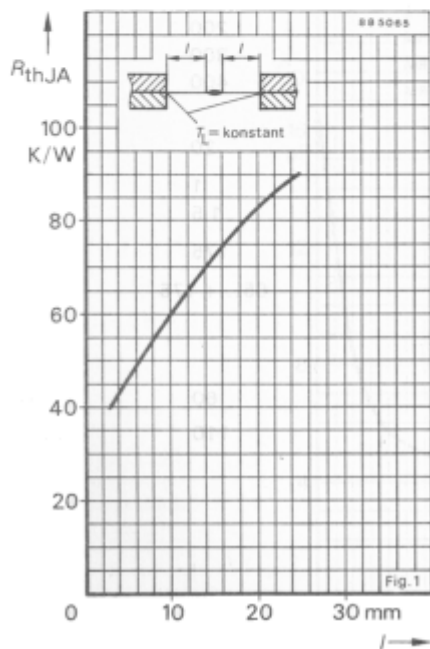
Sperrschicht-Umgebung

| | | | |
|--------------------------------------------|-------------------|----|-----|
| $I = 10 \text{ mm}, T_L = \text{konstant}$ | Fig. 1 R_{thJA} | 60 | K/W |
|--------------------------------------------|-------------------|----|-----|

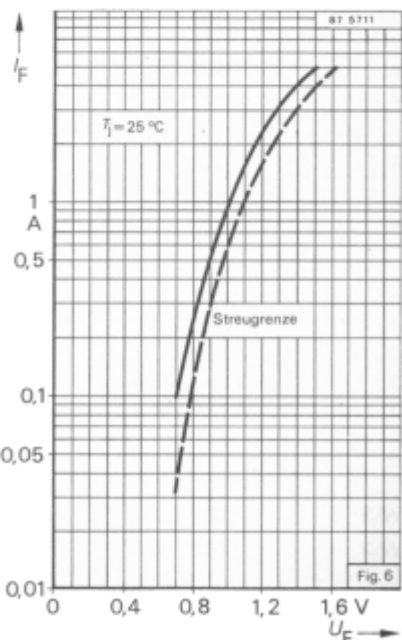
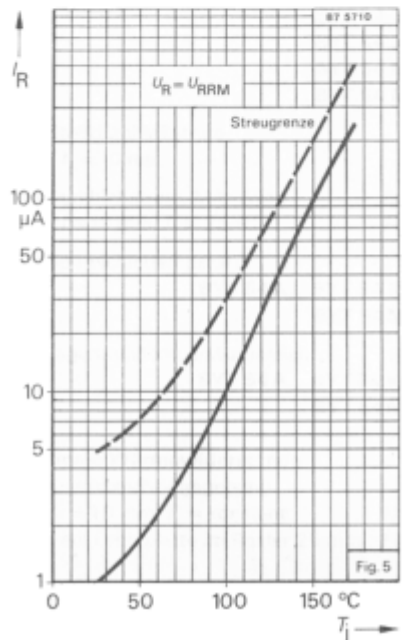
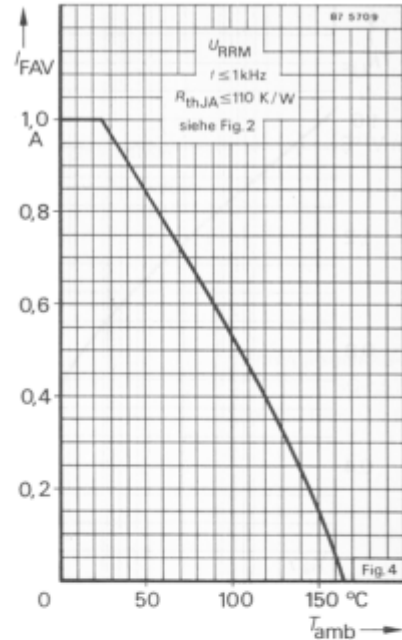
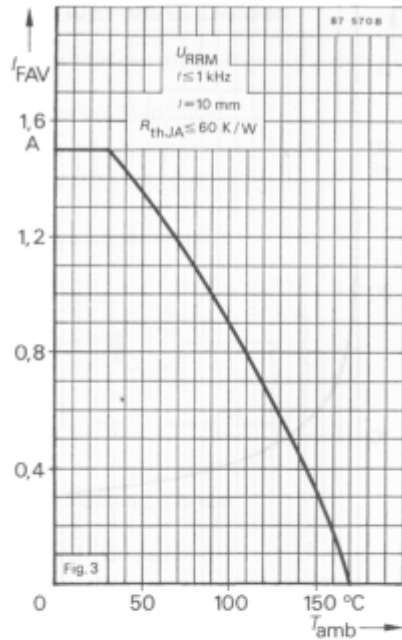
| | | | |
|----------------------------------|-------------------|-----|-----|
| auf Leiterplatte im Raster 25 mm | Fig. 2 R_{thJA} | 110 | K/W |
|----------------------------------|-------------------|-----|-----|

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| Kenngrößen | | Min. | Typ. | Max. |
|-------------------------------------------------------------|----------|------|------|-------------------|
| $T_j = 25\text{ °C}$, falls nicht anders angegeben | | | | |
| Durchlaßspannung | | | | |
| $I_F = 1\text{ A}$ | U_F | | | 1,1 V |
| $I_F = 1\text{ A}, T_j = 175\text{ °C}$ | U_F | | | 0,9 V |
| Sperrstrom | | | | |
| $U_R = U_{RRM}$ | I_R | | | 5 μA |
| $U_R = U_{RRM}, T_j = 150\text{ °C}$ | I_R | | | 200 μA |
| Rückwärtserholzeit | | | | |
| $I_F = 0,5\text{ A}, I_R = 1\text{ A}, i_R = 0,25\text{ A}$ | t_{rr} | | | 50 ns |



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