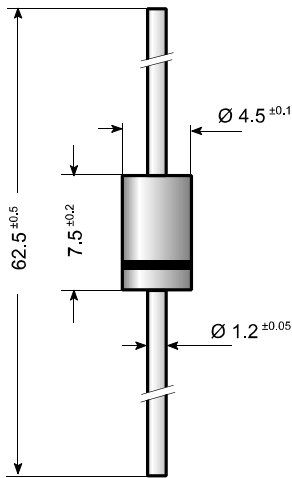


## Silicon Rectifiers

## Silizium Gleichrichter



Dimensions / Maße in mm

|                                                                                       |                               |
|---------------------------------------------------------------------------------------|-------------------------------|
| Nominal current – Nennstrom                                                           | 3 A                           |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung                   | 200...2000 V                  |
| Plastic case<br>Kunststoffgehäuse                                                     | ~ DO-201                      |
| Weight approx. – Gewicht ca.                                                          | 1 g                           |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                               |
| Standard packaging taped in ammo pack<br>Standard Lieferform gegurtet in Ammo-Pack    | see page 17<br>siehe Seite 17 |

## Maximum ratings

## Grenzwerte

| Type<br>Typ                   | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] |
|-------------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| BY 251                        | 200                                                                                  | 200                                                                     |
| BY 252                        | 400                                                                                  | 400                                                                     |
| BY 253                        | 600                                                                                  | 600                                                                     |
| BY 254                        | 800                                                                                  | 800                                                                     |
| BY 255                        | 1300                                                                                 | 1300                                                                    |
| BY 1600                       | 1600                                                                                 | 1600                                                                    |
| BY 1800                       | 1800                                                                                 | 1800                                                                    |
| BY 2000                       | 2000                                                                                 | 2000                                                                    |
| higher voltages see page 127: | höhere Spannungen siehe Seite 127:                                                   |                                                                         |
| BY 4...BY 16                  | 4000...16000                                                                         | 4000...16000                                                            |

|                                                                                                  |              |           |                     |
|--------------------------------------------------------------------------------------------------|--------------|-----------|---------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwertschaltung mit R-Last | $T_A = 50/C$ | $I_{FAV}$ | 3 A <sup>1)</sup>   |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                     | $f > 15$ Hz  | $I_{FRM}$ | 20 A <sup>1)</sup>  |
| Peak forward surge current, 50 Hz half sine-wave<br>Stoßstrom für eine 50 Hz Sinus-Halbwellen    | $T_A = 25/C$ | $I_{FSM}$ | 100 A               |
| Rating for fusing – Grenzlasterintegral, $t < 10$ ms                                             | $T_A = 25/C$ | $i^2t$    | 50 A <sup>2</sup> s |

<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case  
Gültig, wenn die Anschlußdrähte in 10 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden

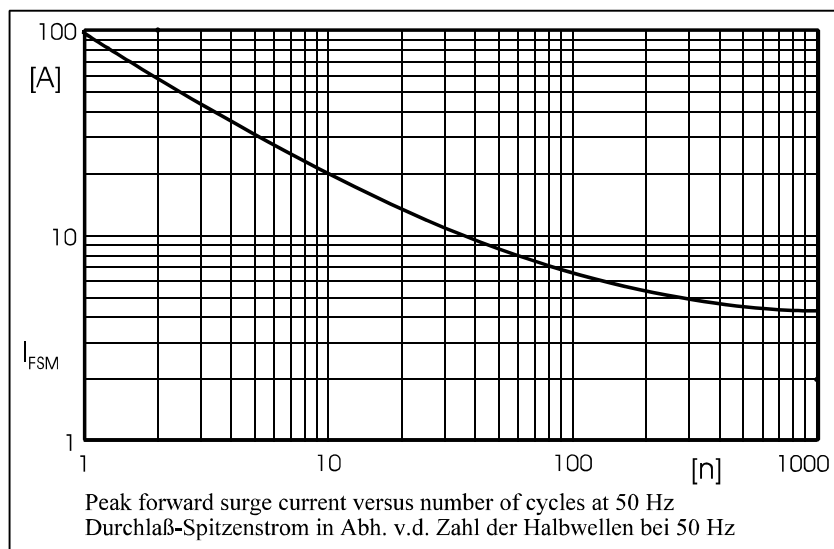
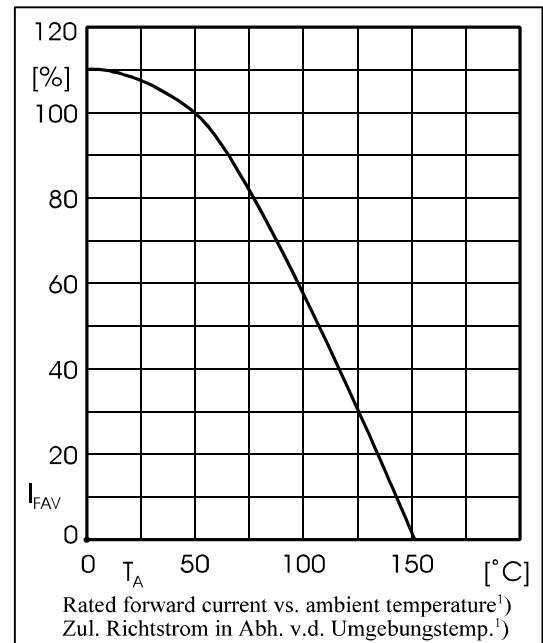
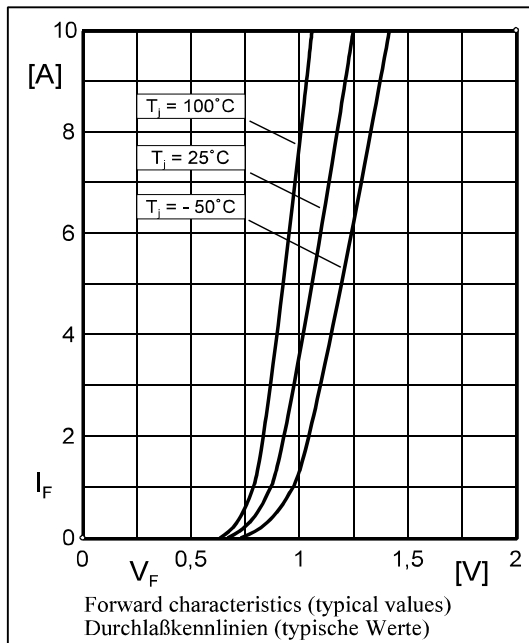
Operating junction temperature – Sperrschichttemperatur  
Storage temperature – Lagerungstemperatur

$T_j$  – 50...+150/C  
 $T_s$  – 50...+175/C

## Characteristics

## Kennwerte

|                                                                                             |              |                 |           |                        |
|---------------------------------------------------------------------------------------------|--------------|-----------------|-----------|------------------------|
| Forward voltage – Durchlaßspannung                                                          | $T_j = 25/C$ | $I_F = 3 A$     | $V_F$     | < 1.1 V                |
| Leakage current – Sperrstrom                                                                | $T_j = 25/C$ | $V_R = V_{RRM}$ | $I_R$     | < 20 : A               |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |              |                 | $R_{thA}$ | < 25 K/W <sup>1)</sup> |



<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case  
Gültig, wenn die Anschlußdrähte in 10 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden