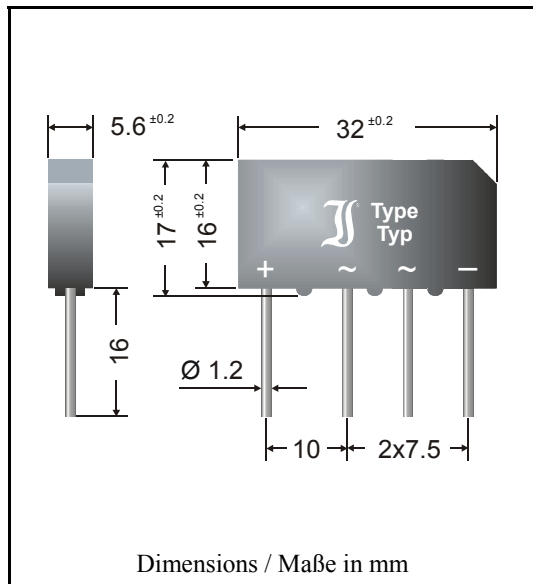


**Silicon-Bridge Rectifiers**

**Silizium-Brückengleichrichter**



|   |                    |
|---|--------------------|
| Nominal current – Nennstrom   | 7.0 A / 4.0 A      |
| Alternating input voltage<br>Eingangswchselfspannung                                  | 40...500 V         |
| Plastic case<br>Kunststoffgehäuse   | 32 x 5.6 x 17 [mm] |
| Weight approx. – Gewicht ca.  | 9 g                |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                    |
| Standard packaging: bulk  | see page 22        |
| Standard Lieferform: lose im Karton   | s. Seite 22        |
| Mounting clamp BO 2   | see page 28        |
| Befestigungsschelle BO 2  | see page 28        |



Recognized Product – Underwriters Laboratories Inc.® File E175067  
Anerkanntes Produkt – Underwriters Laboratories Inc.® Nr. E175067

**Maximum ratings**

**Grenzwerte**

| Type<br>Typ     | Alternating input voltage<br>Eingangswchselfspannung<br>$V_{VRMS}$ [V] | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] <sup>1)</sup> |
|-----------------|--|--|
| B40C 7000-4000  | 40   | 80   |
| B80C 7000-4000  | 80   | 160  |
| B125C 7000-4000 | 125  | 250  |
| B250C 7000-4000 | 250  | 600  |
| B380C 7000-4000 | 380  | 800  |
| B500C 7000-4000 | 500  | 1000   |

|   |                    |           |                      |
|---|--------------------|-----------|----------------------|
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                | $f > 15$ Hz        | $I_{FRM}$ | 50 A <sup>2)</sup>   |
| Peak forward surge current, 50 Hz half sine-wave<br>Stoßstrom für eine 50 Hz Sinus-Halbwell | $T_A = 25^\circ C$ | $I_{FSM}$ | 250 A                |
| Rating for fusing – Grenzlastintegral, $t < 10$ ms  | $T_A = 25^\circ C$ | $i^2t$    | 310 A <sup>2</sup> s |
| Operating junction temperature – Sperrschichttemperatur                                     |                    | $T_j$     | - 50...+150°C        |
| Storage temperature – Lagerungstemperatur   |                    | $T_s$     | - 50...+150°C        |

<sup>1)</sup> Valid for one branch – Gültig für einen Brückenweig

<sup>2)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

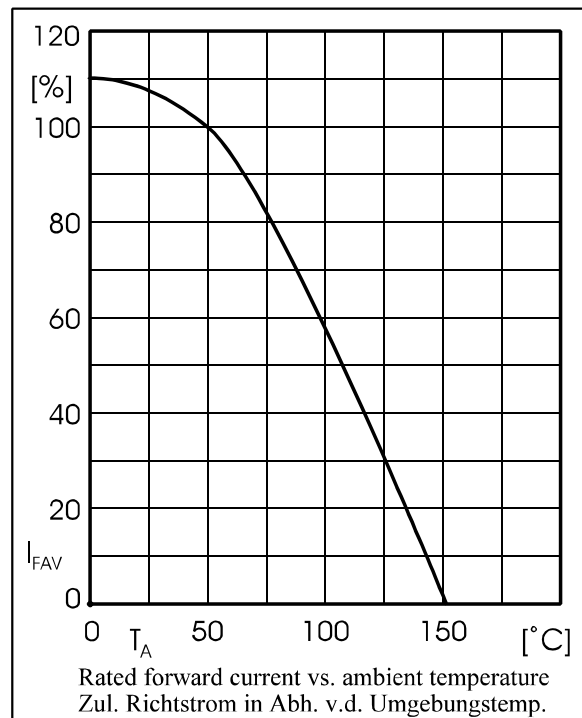
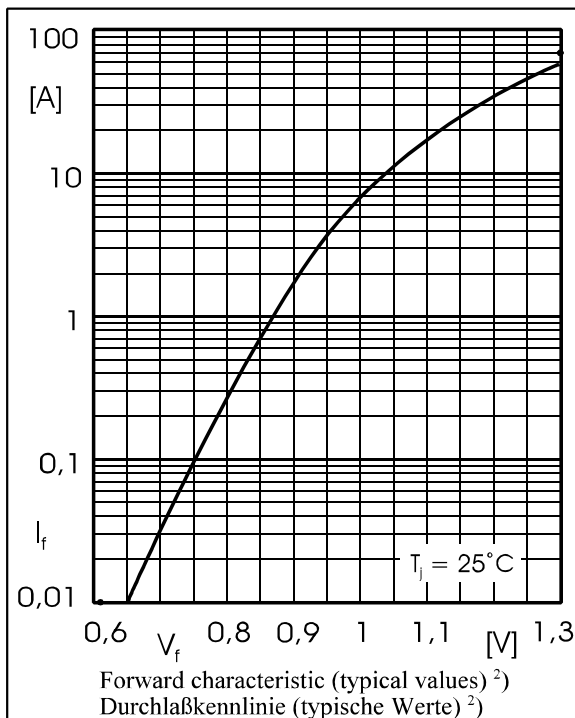
Gültig, wenn die Anschlußdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

**Characteristics**

**Kennwerte**

|  |                          |                  |                        |                        |
|--|--------------------------|------------------|------------------------|------------------------|
| Max. fwd. current without cooling fin<br>Dauergrenzstrom ohne Kühlblech                                | $T_A = 50^\circ\text{C}$ | R-load<br>C-load | $I_{FAV}$<br>$I_{FAV}$ | 4.8 A<br>4.0 A         |
| Max. current with cooling fin 300 cm <sup>2</sup><br>Dauergrenzstrom mit Kühlblech 300 cm <sup>2</sup> | $T_A = 50^\circ\text{C}$ | R-load<br>C-load | $I_{FAV}$<br>$I_{FAV}$ | 8.0 A<br>7.0 A         |
| Leakage current – Sperrstrom   | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$  | $I_R$                  | < 10 $\mu\text{A}$     |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft            |                          |                  | $R_{thA}$              | < 15 K/W <sup>1)</sup> |

| Type<br>Typ     | Max. admissible load capacitor<br>Max. zulässiger Ladekondensator<br>$C_L$ [ $\mu\text{F}$ ] | Min. required protective resistor<br>Min. erforderl. Schutzwiderstand<br>$R_t$ [ $\Omega$ ] |
|-----------------|--|---|
| B40C 7000-4000  | 10000  | 0.5   |
| B80C 7000-4000  | 5000   | 1.0   |
| B125C 7000-4000 | 2500   | 2.0   |
| B250C 7000-4000 | 1500   | 4.0   |
| B380C 7000-4000 | 1000   | 5.0   |
| B500C 7000-4000 | 800  | 6.5   |



<sup>1)</sup> Without cooling fin – Ohne Kühlblech  
<sup>2)</sup> Valid for one branch – Gültig für einen Brückenweig