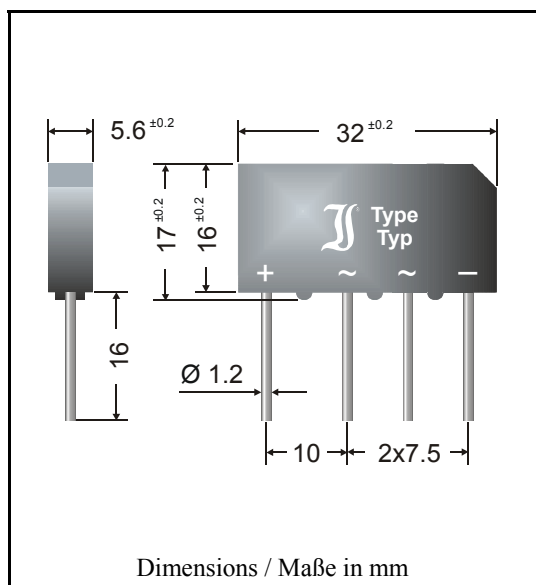


## Silicon-Bridge Rectifiers

## Silizium-Brückengleichrichter



|                                                                                       |                            |
|---------------------------------------------------------------------------------------|----------------------------|
| Nominal current – Nennstrom                                                           | 7.0 A / 4.0 A              |
| Alternating input voltage<br>Eingangswchselspannung                                   | 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<br>Standard Lieferform: lose im Karton                       | see page 22<br>s. Seite 22 |
| Mounting clamp BO 2<br>Befestigungsschelle BO 2                                       | see page 28<br>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>Eingangswchselspannung<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-Halbwellen | $T_A = 25^\circ\text{C}$ | $I_{FSM}$ | 250 A                |
| Rating for fusing – Grenzlastintegral, $t < 10$ ms                                            | $T_A = 25^\circ\text{C}$ | $i^2t$    | 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 Brückenast

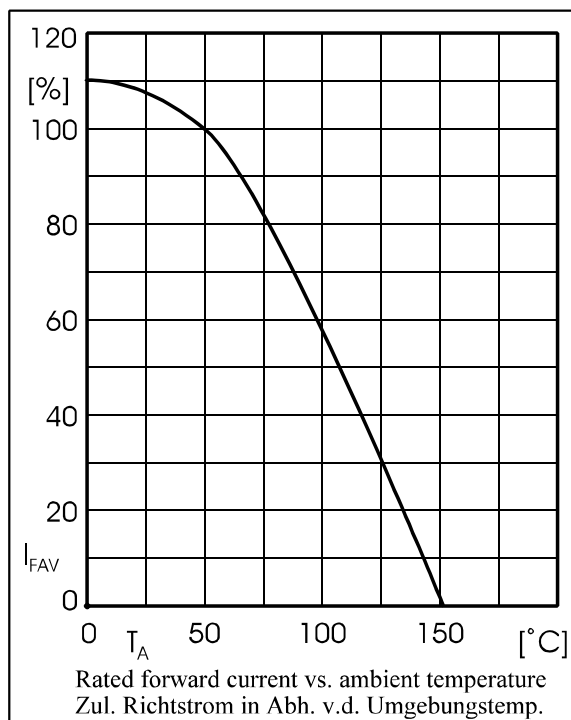
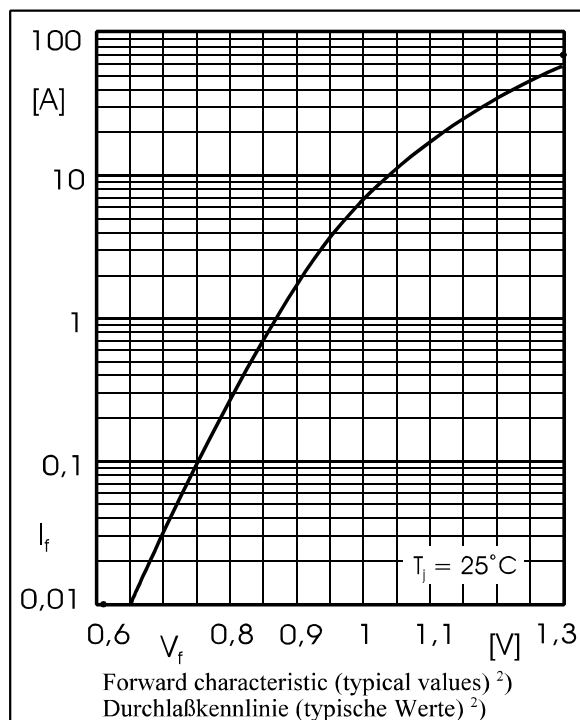
<sup>2)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case  
Gültig, wenn die Anschlußdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

**Characteristics**

**Kennwerte**

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