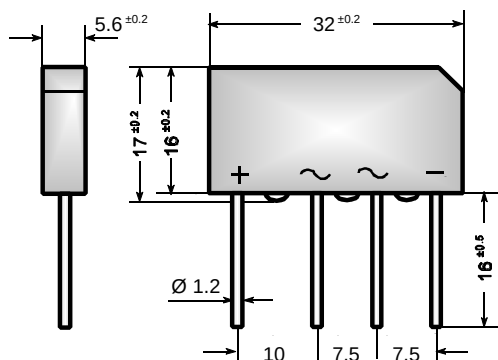


**Silicon-Bridge Rectifiers**

**Silizium-Brückengleichrichter**



Nominal current – Nennstrom 5 A / 3 A

Alternating input voltage 40...500 V  
Eingangswchselspannung

Plastic case 32 x 5.6 x 17 [mm]  
Kunststoffgehäuse

Weight approx. – Gewicht ca. 9 g

Plastic material has UL classification 94V-0  
Gehäusematerial UL94V-0 klassifiziert

Dimensions / Maße in mm

Mounting clamp BO 2 see page 26  
Befestigungsschelle BO 2 siehe Seite 26

**Maximum ratings**

**Grenzwerte**

| Type            | Alternating input volt. | Rep. peak reverse volt. <sup>1)</sup>  | Surge peak reverse volt. <sup>1)</sup> |
|-----------------|-------------------------|----------------------------------------|----------------------------------------|
| Typ             | Eingangswchselspg.      | Period. Spitzensperrspg. <sup>1)</sup> | Stoßspitzensperrspg. <sup>1)</sup>     |
|                 | $V_{VRMS}$ [V]          | $V_{RRM}$ [V]                          | $V_{RSM}$ [V]                          |
| B40C 5000-3000  | 40                      | 80                                     | 100                                    |
| B80C 5000-3000  | 80                      | 160                                    | 200                                    |
| B125C 5000-3000 | 125                     | 250                                    | 400                                    |
| B250C 5000-3000 | 250                     | 500                                    | 800                                    |
| B380C 5000-3000 | 380                     | 800                                    | 1000                                   |
| B500C 5000-3000 | 500                     | 1000                                   | 1200                                   |

Repetitive peak forward current  $f > 15$  Hz  $I_{FRM}$  30 A <sup>2)</sup>  
Periodischer Spitzenstrom

Rating for fusing,  $t < 10$  ms  $T_A = 25^\circ\text{C}$   $i^2t$  110 A<sup>2</sup>s  
Grenzlastintegral,  $t < 10$  ms

Peak fwd. surge current, 50 Hz half sine-wave  $T_A = 25^\circ\text{C}$   $I_{FSM}$  150 A  
Stoßstrom für eine 50 Hz Sinus-Halbwellen

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

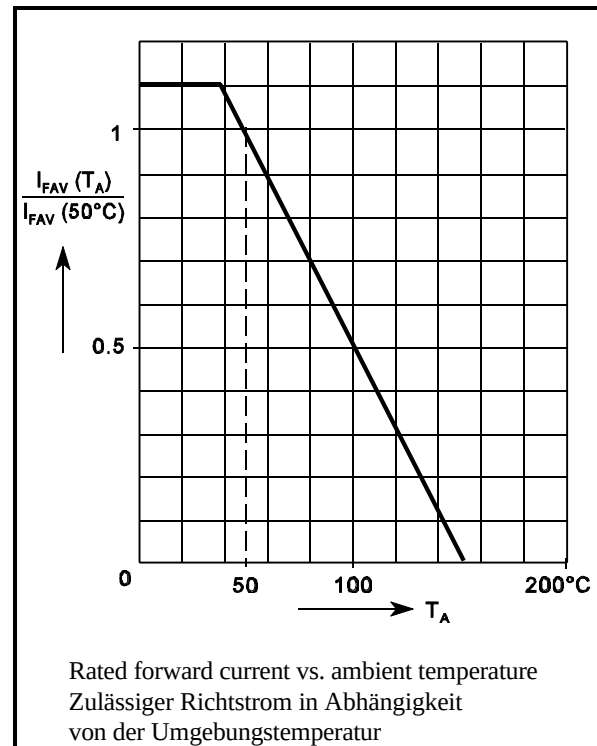
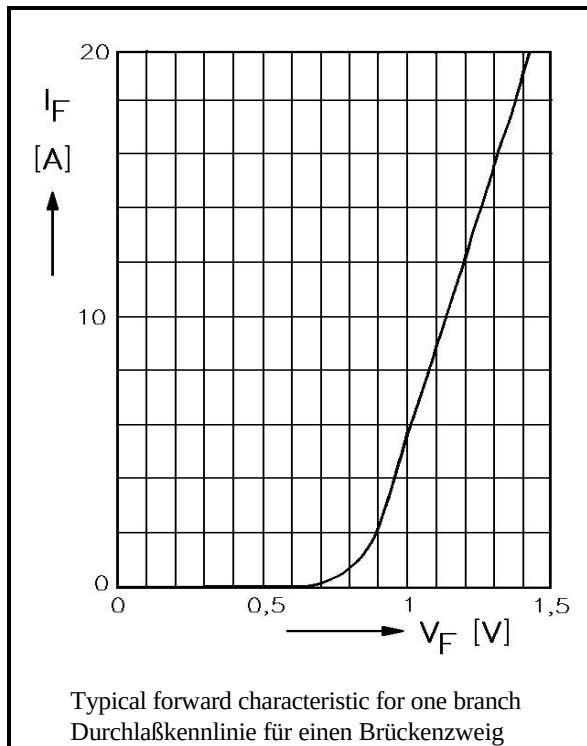
Gültig, wenn die Anschlußdrähte in 10 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden

## Characteristics

## Kennwerte

|                                                                                                        |                          |                        |                                      |                                            |
|--------------------------------------------------------------------------------------------------------|--------------------------|------------------------|--------------------------------------|--------------------------------------------|
| Max. fwd. current without cooling fin<br>Dauergrenzstrom ohne Kühlblech                                | $T_A = 45^\circ\text{C}$ | R-load<br>C-load       | $I_{\text{FAV}}$<br>$I_{\text{FAV}}$ | 3.5 A <sup>1)</sup><br>3.0 A <sup>1)</sup> |
| Max. current with cooling fin 300 cm <sup>2</sup><br>Dauergrenzstrom mit Kühlblech 300 cm <sup>2</sup> | $T_A = 45^\circ\text{C}$ | R-load<br>C-load       | $I_{\text{FAV}}$<br>$I_{\text{FAV}}$ | 5.8 A<br>5.0 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            |                          |                        | $R_{\text{thA}}$                     | < 20 K/W <sup>1)</sup>                     |

| Type<br>Typ     | Max. admissible load capacitor<br>Max. zulässiger Ladekondensator | Min. required protective resistor<br>Min. erforderl. Schutzwiderstand |
|-----------------|-------------------------------------------------------------------|-----------------------------------------------------------------------|
|                 | $C_L$ [ $\mu\text{F}$ ]                                           | $R_t$ [ $\Omega$ ]                                                    |
| B40C 5000-3000  | 10000                                                             | 0.5                                                                   |
| B80C 5000-3000  | 5000                                                              | 1.0                                                                   |
| B125C 5000-3000 | 2500                                                              | 2.0                                                                   |
| B250C 5000-3000 | 1500                                                              | 4.0                                                                   |
| B380C 5000-3000 | 1000                                                              | 5.0                                                                   |
| B500C 5000-3000 | 800                                                               | 6,5                                                                   |



<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