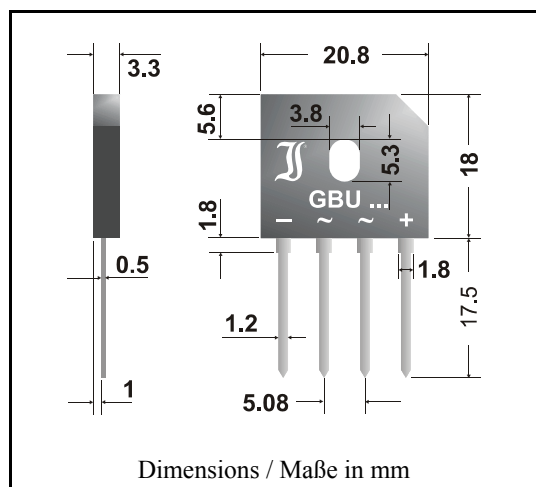


**Silicon-Bridge Rectifiers**

**Silizium-Brückengleichrichter**



|                                                                                       |                      |
|---------------------------------------------------------------------------------------|----------------------|
| Nominal current – Nennstrom                                                           | 6 A                  |
| Alternating input voltage<br>Eingangsschaltspannung                                   | 35...700 V           |
| Plastic case<br>Kunststoffgehäuse                                                     | 20.8 x 3.3 x 18 [mm] |
| Weight approx. – Gewicht ca.                                                          | 3.8 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          |



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

**Maximum ratings**

**Grenzwerte**

| Type<br>Typ | max. alternating input voltage<br>max. Eingangsschaltspannung<br>$V_{VRMS}$ [V] | Repetitive peak reverse voltage<br>Periodische Spitzenspannung<br>$V_{RRM}$ [V] <sup>1)</sup> |
|-------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| GBU 6A      | 35                                                                              | 50                                                                                            |
| GBU 6B      | 70                                                                              | 100                                                                                           |
| GBU 6D      | 140                                                                             | 200                                                                                           |
| GBU 6G      | 280                                                                             | 400                                                                                           |
| GBU 6J      | 420                                                                             | 600                                                                                           |
| GBU 6K      | 560                                                                             | 800                                                                                           |
| GBU 6M      | 700                                                                             | 1000                                                                                          |

|                                                                                               |                          |           |                             |
|-----------------------------------------------------------------------------------------------|--------------------------|-----------|-----------------------------|
| Repetitive peak fwd. current – Period. Spitzenstrom                                           | $f > 15$ Hz              | $I_{FRM}$ | 40 A <sup>2)</sup>          |
| Peak forward surge current, 60 Hz half sine-wave<br>Stoßstrom für eine 60 Hz Sinus-Halbwellen | $T_A = 25^\circ\text{C}$ | $I_{FSM}$ | 250 A                       |
| Rating for fusing – Grenzlasterintegral, $t < 10$ ms                                          | $T_A = 25^\circ\text{C}$ | $i^2t$    | 260 A <sup>2</sup> s        |
| Operating junction temperature – Sperrschichttemperatur                                       |                          | $T_j$     | – 50...+150°C               |
| Storage temperature – Lagerungstemperatur                                                     |                          | $T_s$     | – 50...+150°C               |
| Admissible torque for mounting<br>Zulässiges Anzugsdrehmoment                                 | M 4                      |           | 9 ± 10% lb.in<br>1 ± 10% Nm |

<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

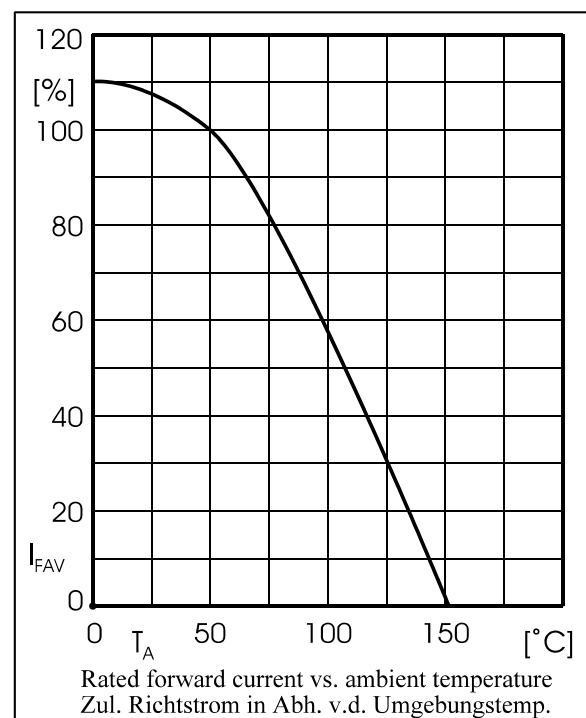
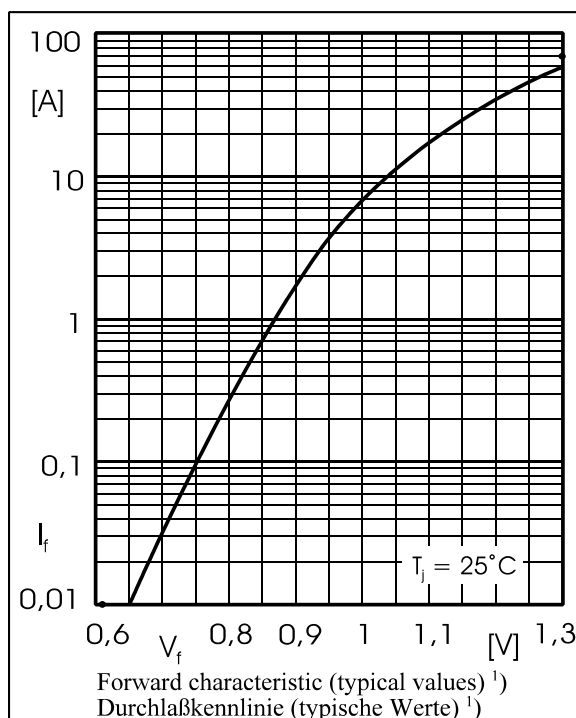
Gültig, wenn die Anschlußdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

## 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>$I_{\text{FAV}}$ | 4.2 A<br>3.4 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>$I_{\text{FAV}}$ | 6.0 A<br>4.8 A            |
| Forward voltage – Durchlaßspannung                                                                     | $T_j = 25^\circ\text{C}$ | $I_F = 6\text{ A}$     | $V_F$                                | $< 1.0\text{ V}^{1)}$     |
| Leakage current – Sperrstrom                                                                           | $T_j = 25^\circ\text{C}$ | $V_R = V_{\text{RRM}}$ | $I_R$                                | $< 10\text{ }\mu\text{A}$ |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse                          |                          |                        | $R_{\text{thC}}$                     | $< 3.3\text{ K/W}$        |

| 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>$R_t [\Omega]$ |
|-------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| GBU 6A      | 20000                                                                                    | 0.25                                                                                    |
| GBU 6B      | 10000                                                                                    | 0.5                                                                                     |
| GBU 6D      | 5000                                                                                     | 1.0                                                                                     |
| GBU 6G      | 2500                                                                                     | 2.0                                                                                     |
| GBU 6J      | 1500                                                                                     | 3.0                                                                                     |
| GBU 6K      | 1000                                                                                     | 4.0                                                                                     |
| GBU 6M      | 800                                                                                      | 5.5                                                                                     |



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