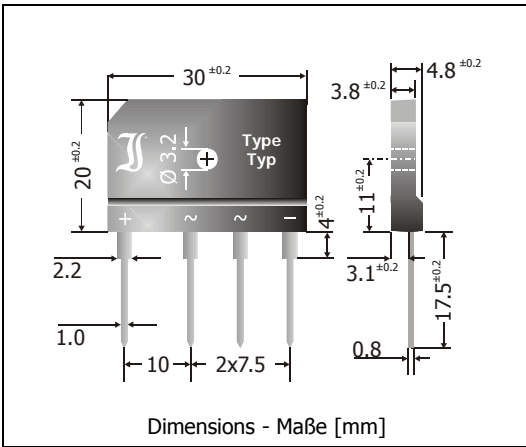


GBI25A ... GBI25M
Silicon-Bridge-Rectifiers
Silizium-Brückengleichrichter

Version 2006-01-04



| | |
|---|--------------------|
| Nominal current Nennstrom | 25 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 50...1000 V |
| Plastic case Kunststoffgehäuse | 30 x 3.6 x 18 [mm] |
| Weight approx. – Gewicht ca. | 7 g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert | |
| Standard packaging bulk Standard Lieferform lose im Karton | |



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

Maximum ratings

Grenzwerte

| Type Typ | Max. alternating input voltage Max. Eingangswchelspannung V_{VRMS} [V] | Repetitive peak reverse voltage Periodische Spitzensperrspannung V_{RRM} [V] ¹⁾ | |
|--|--|--|--------------------------------|
| GBI25A | 35 | 50 | |
| GBI25B | 70 | 100 | |
| GBI25D | 140 | 200 | |
| GBI25G | 280 | 400 | |
| GBI25J | 420 | 600 | |
| GBI25K | 560 | 800 | |
| GBI25M | 700 | 1000 | |
| Repetitive peak forward current Periodischer Spitzenstrom | | f > 15 Hz | I_{FRM} 60 A ²⁾ |
| Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle | | $T_A = 25^\circ\text{C}$ | I_{FSM} 300/340 A |
| Rating for fusing, t < 10 ms Grenzlastintegral, t < 10 ms | | $T_A = 25^\circ\text{C}$ | i^2t 450 A ² s |
| Operating junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur | | T_j T_s | -50...+150°C -50...+150°C |
| Admissible torque for mounting Zulässiges Anzugsdrehmoment | | M 3 | 5 ± 10% lb.in. 0.5 ± 10% Nm |

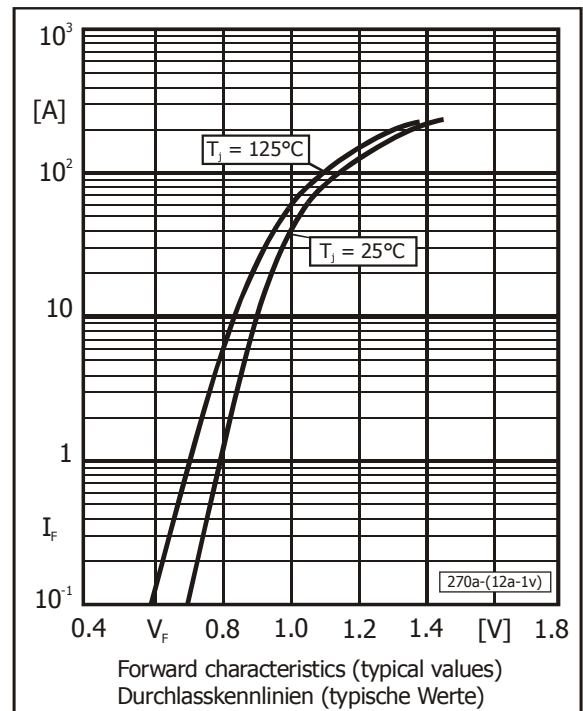
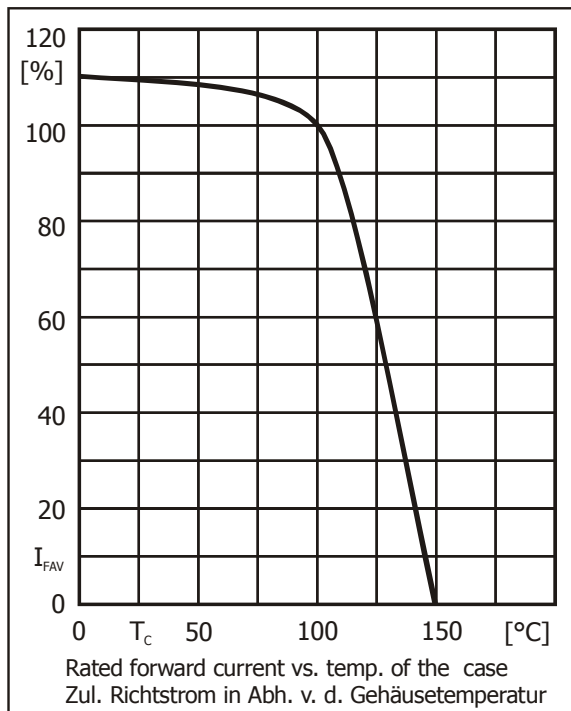
1 Valid for one branch – Gültig für einen Brückenweig

2 Valid, if leads are kept to ambient temperature $T_A = 50^\circ\text{C}$ at a distance of 5 mm from case
 Gültig, wenn die Anschlüsse in 5 mm vom Gehäuse auf Umgebungstemperatur $T_A = 50^\circ\text{C}$ gehalten werden

Characteristics
Kennwerte

| | | | | |
|---|---------------------------|-----------------------|------------------------|--|
| Max. rectified current without cooling fin Dauergrenzstrom ohne Kühlblech | $T_A = 50^\circ\text{C}$ | R-load C-load | I_{FAV} I_{FAV} | 4.2 A ¹⁾ 3.5 A ¹⁾ |
| Max. rectified current with forced cooling Dauergrenzstrom mit forcierter Kühlung | $T_C = 100^\circ\text{C}$ | R-load C-load | I_{FAV} I_{FAV} | 25.0 A 20.0 A |
| Forward voltage – Durchlass-Spannung | $T_j = 25^\circ\text{C}$ | $I_F = 12.5\text{ A}$ | V_F | < 1.1 V ²⁾ |
| Leakage current – Sperrstrom | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 10 μA |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | R_{thJA} | < 12 K/W ¹⁾ |
| Thermal resistance junction to case Wärmewiderstand Sperrschicht – Gehäuse | | | R_{thJC} | < 1.2 K/W |

| Type Typ | Max. admissible load capacitor Max. zulässiger Ladekondensator C_L [μF] | Min. required protective resistor Min. erforderl. Schutzwiderstand R_L [Ω] |
|-------------|--|---|
| GBI25A | 20000 | 0.2 |
| GBI25B | 10000 | 0.4 |
| GBI25D | 5000 | 0.8 |
| GBI25G | 2500 | 1.6 |
| GBI25J | 1500 | 2.4 |
| GBI25K | 1000 | 3.2 |
| GBI25M | 800 | 4.0 |



- Valid, if leads are kept to ambient temperature at a distance of 5 mm from case
Gültig, wenn die Anschlüsse in 5 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden
- Valid for one branch – Gültig für einen Brückenweig