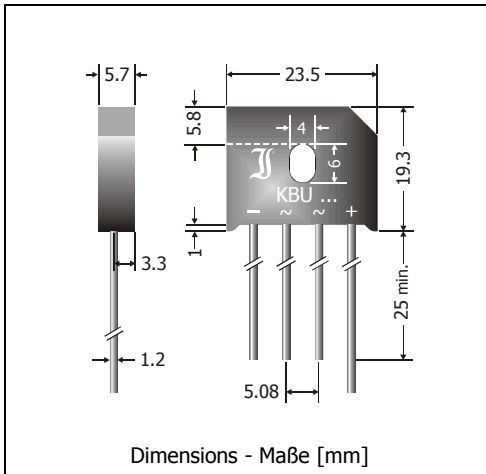


## KBU8A ... KBU8M

### Silicon-Bridge-Rectifiers Silizium-Brückengleichrichter

Version 2005-10-21



|   |                        |
|---|------------------------|
| Nominal current<br>Nennstrom  | 8 A                    |
| Alternating input voltage<br>Eingangswchelspannung                                    | 35...700 V             |
| Plastic case<br>Kunststoffgehäuse   | 23.5 x 5.7 x 19.3 [mm] |
| Weight approx.<br>Gewicht ca.   | 7 g                    |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                        |
| Standard packaging bulk<br>Standard Lieferform lose im Karton                         |                        |



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. Eingangswchelspannung<br>$V_{VRMS}$ [V] | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] <sup>1)</sup> |
|-------------|--|--|
| KBU8A       | 35   | 50   |
| KBU8B       | 70   | 100  |
| KBU8D       | 140  | 200  |
| KBU8G       | 280  | 400  |
| KBU8J       | 420  | 600  |
| KBU8K       | 560  | 800  |
| KBU8M       | 700  | 1000   |

|  |                          |                |                              |
|--|--------------------------|----------------|------------------------------|
| Repetitive peak forward current<br>Periodischer Spitzenstrom   | $f > 15$ Hz              | $I_{FRM}$      | 50 A <sup>2)</sup>           |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwelle   | $T_A = 25^\circ\text{C}$ | $I_{FSM}$      | 270/300 A                    |
| Rating for fusing, $t < 10$ ms<br>Grenzlastintegral, $t < 10$ ms                                     | $T_A = 25^\circ\text{C}$ | $i^2t$         | 375 A <sup>2</sup> s         |
| Operating junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur |                          | $T_j$<br>$T_s$ | -50...+150°C<br>-50...+150°C |
| Admissible torque for mounting<br>Zulässiges Anzugsdrehmoment  |                          | M 4            | 9 ± 10% lb.in.<br>1 ± 10% Nm |

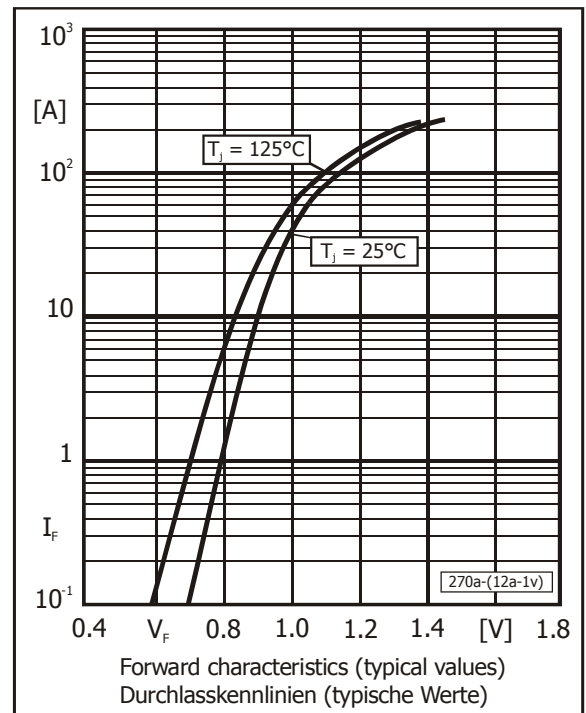
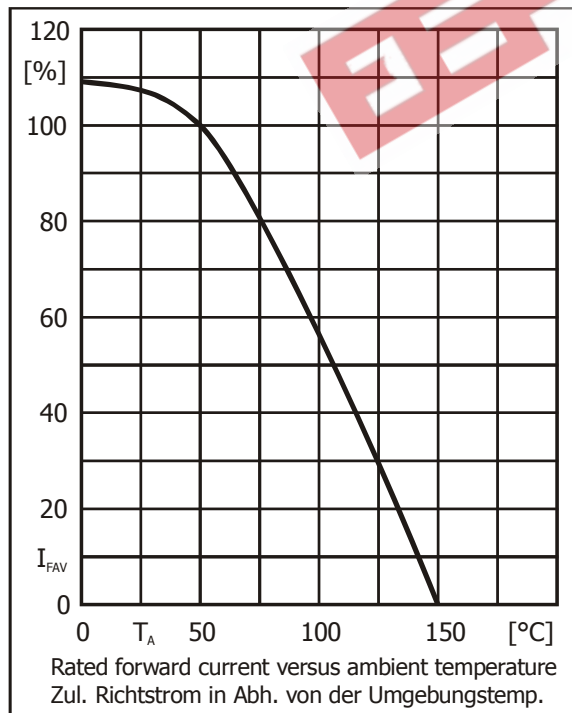
1 Valid for one branch – Gültig für einen Brückenweig

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

**Characteristics**
**Kenwerte**

|  |                          |                     |                        |  |
|--|--------------------------|---------------------|------------------------|--|
| Max. rectified current without cooling fin<br>Dauergrenzstrom ohne Kühlblech                                     | $T_A = 50^\circ\text{C}$ | R-load<br>C-load    | $I_{FAV}$<br>$I_{FAV}$ | $5.6 \text{ A}^1)$<br>$4.5 \text{ A}^1)$ |
| Max. rectified 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>6.4 A                           |
| Forward voltage – Durchlass-Spannung   | $T_j = 25^\circ\text{C}$ | $I_F = 8 \text{ A}$ | $V_F$                  | $< 1.0 \text{ V}^2)$                     |
| Leakage current – Sperrstrom   | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$     | $I_R$                  | $< 10 \mu\text{A}$                       |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse                                    |                          |                     | $R_{thc}$              | $< 3.0 \text{ K/W}$                      |

| 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>$R_t$ [ $\Omega$ ] |
|-------------|--|---|
| KBU8A       | 20000  | 0.2   |
| KBU8B       | 10000  | 0.4   |
| KBU8D       | 5000   | 0.8   |
| KBU8G       | 2500   | 1.6   |
| KBU8J       | 1500   | 2.4   |
| KBU8K       | 1000   | 3.2   |
| KBU8M       | 800  | 4.0   |



- Valid, if leads are kept at ambient temperature  $T_A = 50^\circ\text{C}$  at a distance of 5 mm from case  
Gültig, wenn die Anschlussdrähte in 5 mm vom Gehäuse auf Umgebungstemperatur  $T_A = 50^\circ\text{C}$  gehalten werden
- Valid for one branch – Gültig für einen Brückenweig