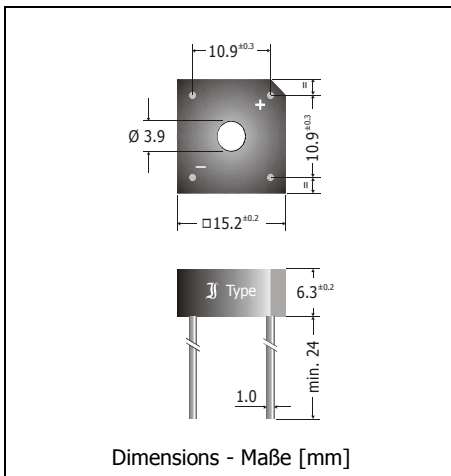


## KBPC600 ... KBPC610

### Silicon-Bridge-Rectifiers Silizium-Brückengleichrichter

Version 2012-10-08



|                                                                                       |                        |
|---------------------------------------------------------------------------------------|------------------------|
| Nominal current<br>Nennstrom                                                          | 6 A                    |
| Alternating input voltage<br>Eingangsschaltspannung                                   | 35...700 V             |
| Plastic case<br>Kunststoffgehäuse                                                     | 15.2 x 15.2 x 6.3 [mm] |
| Weight approx.<br>Gewicht ca.                                                         | 3.5 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. Eingangsschaltspannung<br>$V_{VRMS}$ [V] | Repetitive peak reverse voltage<br>Periodische Spitzenspannung<br>$V_{RRM}$ [V] <sup>1)</sup> |
|-------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| KBPC600     | 35                                                                              | 50                                                                                            |
| KBPC601     | 70                                                                              | 100                                                                                           |
| KBPC602     | 140                                                                             | 200                                                                                           |
| KBPC604     | 280                                                                             | 400                                                                                           |
| KBPC606     | 420                                                                             | 600                                                                                           |
| KBPC608     | 560                                                                             | 800                                                                                           |
| KBPC610     | 700                                                                             | 1000                                                                                          |

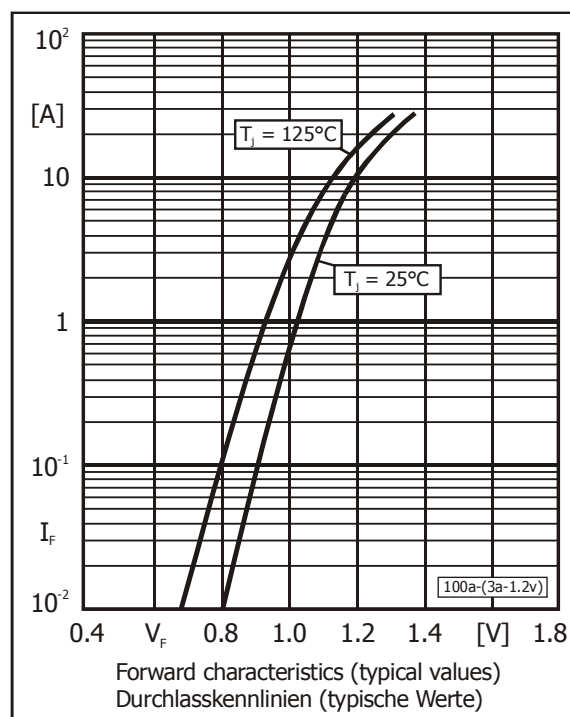
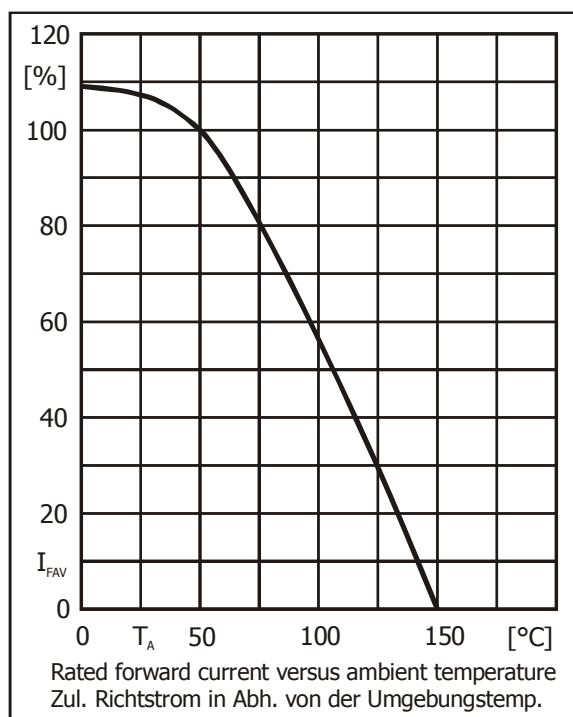
|                                                                                                      |                          |                |                              |
|------------------------------------------------------------------------------------------------------|--------------------------|----------------|------------------------------|
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                         | $f > 15$ Hz              | $I_{FRM}$      | 30 A <sup>2)</sup>           |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwellen  | $T_A = 25^\circ\text{C}$ | $I_{FSM}$      | 110/125 A                    |
| Rating for fusing, $t < 10$ ms<br>Grenzlastintegral, $t < 10$ ms                                     | $T_A = 25^\circ\text{C}$ | $i^2t$         | 64 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 |

1 Valid for one branch – Gültig für einen Brückenast

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**
**Kennwerte**

|                                                                                                                  |                          |                    |                        |                                            |
|------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------|------------------------|--------------------------------------------|
| Max. rectified current without cooling fin<br>Dauergrenzstrom ohne Kühlblech                                     | $T_A = 50^\circ\text{C}$ | R-load<br>C-load   | $I_{FAV}$<br>$I_{FAV}$ | 3.8 A <sup>1)</sup><br>3.0 A <sup>1)</sup> |
| 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>$I_{FAV}$ | 6.0 A<br>4.8 A                             |
| Forward voltage – Durchlass-Spannung                                                                             | $T_j = 25^\circ\text{C}$ | $I_F = 3\text{ A}$ | $V_F$                  | < 1.2 V <sup>2)</sup>                      |
| Leakage current – Sperrstrom                                                                                     | $T_j = 25^\circ\text{C}$ | $V_R = V_{RRM}$    | $I_R$                  | < 5 $\mu\text{A}$                          |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse                                    |                          |                    | $R_{thC}$              | < 3.3 K/W                                  |
| Admissible torque for mounting<br>Zulässiges Anzugsdrehmoment                                                    |                          |                    | M 4                    | 9 $\pm$ 10% lb.in.<br>1 $\pm$ 10% Nm       |



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