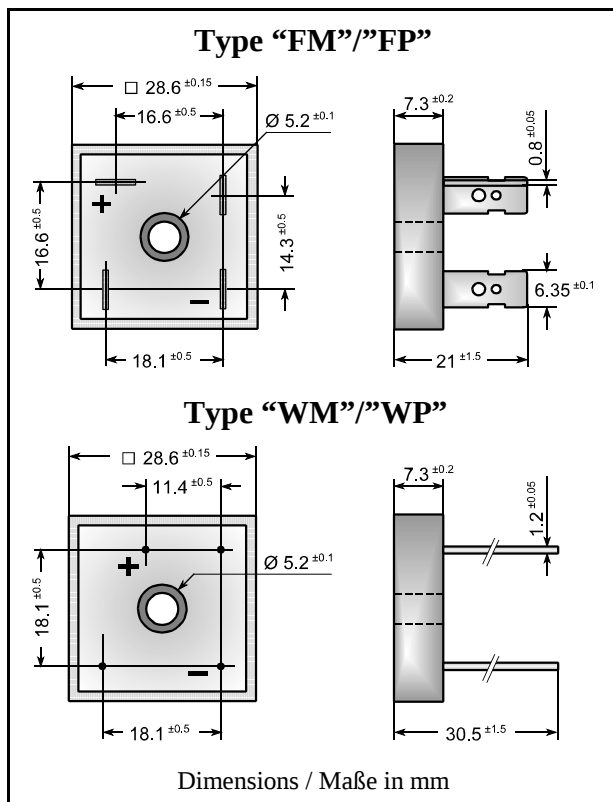


## Silicon-Bridge Rectifiers

## Silizium-Brückengleichrichter



Nominal current 25 A  
Nennstrom

Alternating input voltage 35...1000 V  
Eingangswechselspannung

Metal case (Index "M") or  
Plastic case with alu-bottom (Index "P")

Metallgehäuse (Index "M") oder  
Kunststoffgeh. mit Alu-Boden (Index "P")

Dimensions 28.6 x 28.6 x 7.3 [mm]  
Abmessungen

Weight approx. 23 g  
Gewicht ca.

Compound has classification UL94V-0  
Vergußmasse 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

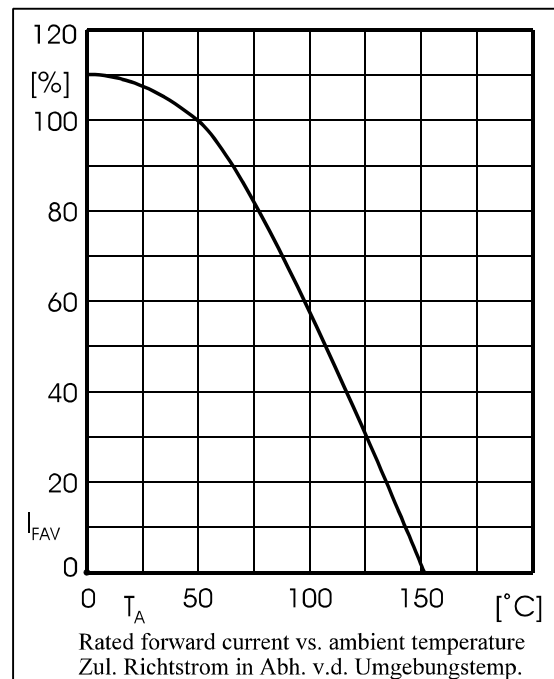
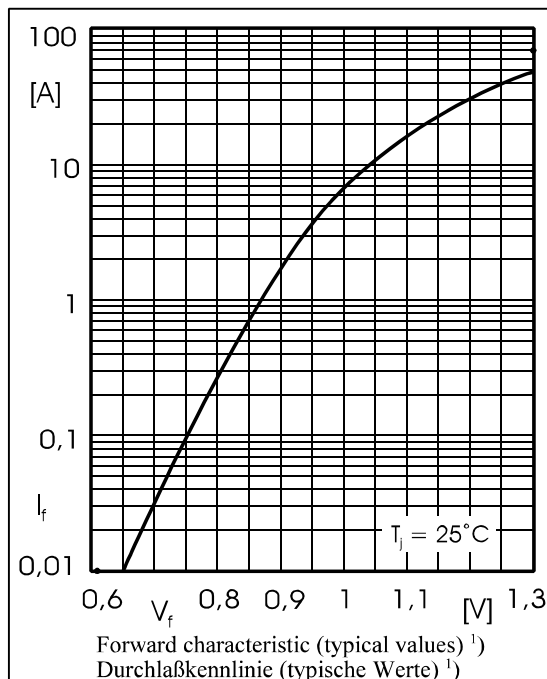
| Type<br>Typ   | Alternating input volt.<br>Eingangswechselspg..<br>$V_{VRMS}$ [V] | Rep. peak reverse voltage<br>Period. Spitzensperrspg.<br>$V_{RRM}$ [V] <sup>1)</sup> | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] <sup>1)</sup> |
|---------------|-------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| KBPC 2500 F/W | 35                                                                | 50                                                                                   | 80                                                                                    |
| KBPC 2501 F/W | 70                                                                | 100                                                                                  | 130                                                                                   |
| KBPC 2502 F/W | 140                                                               | 200                                                                                  | 250                                                                                   |
| KBPC 2504 F/W | 280                                                               | 400                                                                                  | 450                                                                                   |
| KBPC 2506 F/W | 420                                                               | 600                                                                                  | 700                                                                                   |
| KBPC 2508 F/W | 560                                                               | 800                                                                                  | 1000                                                                                  |
| KBPC 2510 F/W | 700                                                               | 1000                                                                                 | 1200                                                                                  |
| KBPC 2512 F/W | 800                                                               | 1200                                                                                 | 1300                                                                                  |
| KBPC 2514 F/W | 900                                                               | 1400                                                                                 | 1400                                                                                  |
| KBPC 2516 F/W | 1000                                                              | 1600                                                                                 | 1600                                                                                  |

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

|                                                                                               |                           |                  |                                 |
|-----------------------------------------------------------------------------------------------|---------------------------|------------------|---------------------------------|
| Repetitive peak fwd. current – Period. Spitzenstrom                                           | $f > 15 \text{ Hz}$       | $I_{\text{FRM}}$ | $60 \text{ A}^1)$               |
| Peak forward surge current, 60 Hz half sine-wave<br>Stoßstrom für eine 60 Hz Sinus-Halbwellen | $T_A = 25^\circ \text{C}$ | $I_{\text{FSM}}$ | $300 \text{ A}$                 |
| Rating for fusing – Grenzlasterintegral, $t < 10 \text{ ms}$                                  | $T_A = 25^\circ \text{C}$ | $i^2 t$          | $375 \text{ A}^2 \text{s}$      |
| Operating junction temperature – Sperrschichttemperatur                                       |                           | $T_j$            | $-50 \dots +150^\circ \text{C}$ |
| Storage temperature – Lagerungstemperatur                                                     |                           | $T_s$            | $-50 \dots +150^\circ \text{C}$ |

**Characteristics****Kennwerte**

|                                                                                                      |                           |                        |                                      |                                                        |
|------------------------------------------------------------------------------------------------------|---------------------------|------------------------|--------------------------------------|--------------------------------------------------------|
| Max. current with cooling fin $300 \text{ cm}^2$<br>Dauergrenzstrom mit Kühlblech $300 \text{ cm}^2$ | $T_A = 50^\circ \text{C}$ | R-load<br>C-load       | $I_{\text{FAV}}$<br>$I_{\text{FAV}}$ | $25.0 \text{ A}$<br>$20.0 \text{ A}$                   |
| Forward voltage – Durchlaßspannung                                                                   | $T_j = 25^\circ \text{C}$ | $I_F = 12.5 \text{ A}$ | $V_F$                                | $< 1.2 \text{ V}^2)$                                   |
| Leakage current – Sperrstrom                                                                         | $T_j = 25^\circ \text{C}$ | $V_R = V_{\text{RRM}}$ | $I_R$                                | $< 25 \mu\text{A}$                                     |
| Isolation voltage terminals to case<br>Isolationsspannung Anschlüsse zum Gehäuse                     |                           |                        | $V_{\text{ISO}}$                     | $> 2500 \text{ V}$                                     |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse                        |                           |                        | $R_{\text{thC}}$                     | $< 2.0 \text{ K/W}$                                    |
| Admissible torque for mounting<br>Zulässiges Anzugsdrehmoment                                        |                           | 10-32 UNF<br>M 5       |                                      | $18 \pm 10\% \text{ lb.in}$<br>$2 \pm 10\% \text{ Nm}$ |



<sup>1)</sup> Valid, if the temperature of the case is kept to  $120^\circ \text{C}$  – Gültig, wenn die Gehäusetemperatur auf  $120^\circ \text{C}$  gehalten wird

<sup>2)</sup> Valid for one branch – Gültig für einen Brückenweig