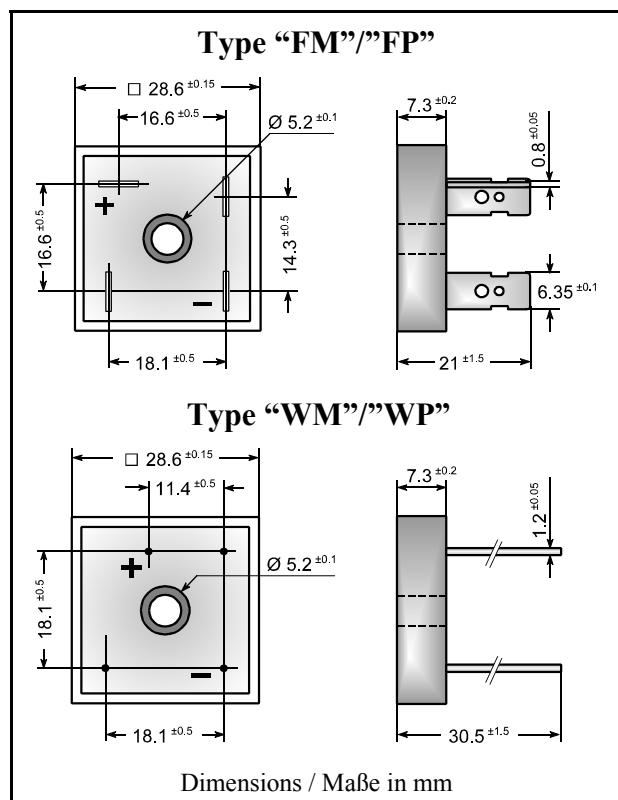


## Silicon-Bridge Rectifiers

## Silizium-Brückengleichrichter



|                 |      |
|-----------------|------|
| Nominal current | 25 A |
| Nennstrom       |      |

Alternating input voltage 35...1000 V  
Eingangsswechselspannung

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 see page 22  
Standard Lieferform: lose im Karton s.S.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. Eingangswechselspannung<br>$V_{\text{VRMS}}$ [V] | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{\text{RRM}}$ [V] <sup>1)</sup> |
|---------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| KBPC 2500 F/W | 35                                                                                      | 50                                                                                                        |
| KBPC 2501 F/W | 70                                                                                      | 100                                                                                                       |
| KBPC 2502 F/W | 140                                                                                     | 200                                                                                                       |
| KBPC 2504 F/W | 280                                                                                     | 400                                                                                                       |
| KBPC 2506 F/W | 420                                                                                     | 600                                                                                                       |
| KBPC 2508 F/W | 560                                                                                     | 800                                                                                                       |
| KBPC 2510 F/W | 700                                                                                     | 1000                                                                                                      |
| KBPC 2512 F/W | 800                                                                                     | 1200                                                                                                      |
| KBPC 2514 F/W | 900                                                                                     | 1400                                                                                                      |
| KBPC 2516 F/W | 1000                                                                                    | 1600                                                                                                      |

Repetitive peak forward current  
Periodischer Spitzenstrom

$$f > 15 \text{ Hz} \quad I_{\text{FERM}} \quad (60 \text{ A}^2)$$

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

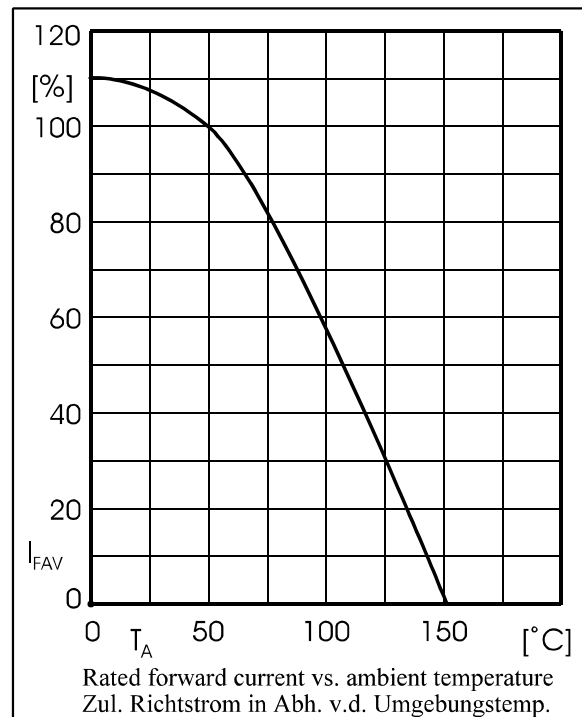
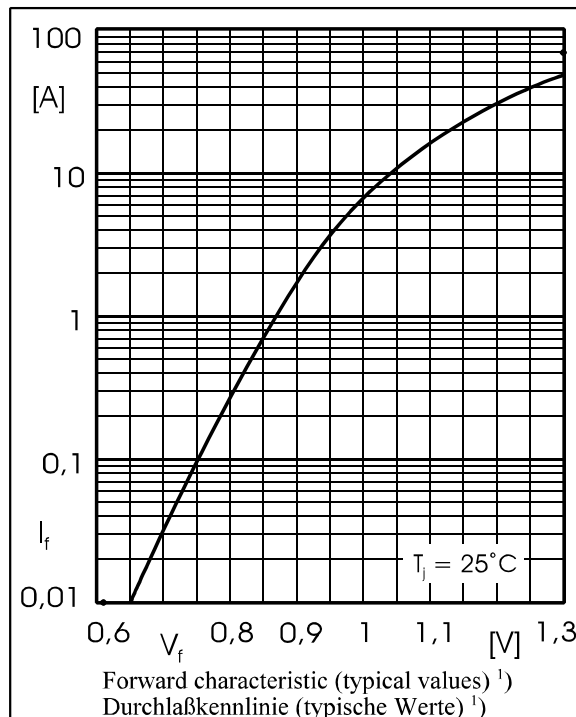
<sup>2)</sup> Valid, if the temperature of the case is kept to 120°C – Gültig, wenn die Gehäusetemp. auf 120°C gehalten wird

|                                                                                              |                          |                  |                      |
|----------------------------------------------------------------------------------------------|--------------------------|------------------|----------------------|
| Peak forward surge current, 60 Hz half sine-wave<br>Stoßstrom für eine 60 Hz Sinus-Halbwelle | $T_A = 25^\circ\text{C}$ | $I_{\text{FSM}}$ | 300 A                |
| Rating for fusing – Grenzlasterintegral, $t < 10\text{ ms}$                                  | $T_A = 25^\circ\text{C}$ | $i^2t$           | 375 A <sup>2</sup> s |
| Operating junction temperature – Sperrschichttemperatur                                      |                          | $T_j$            | – 50...+150°C        |
| Storage temperature – Lagerungstemperatur                                                    |                          | $T_s$            | – 50...+150°C        |

## Characteristics

## Kennwerte

|                                                                                                        |                          |                        |                                      |                              |
|--------------------------------------------------------------------------------------------------------|--------------------------|------------------------|--------------------------------------|------------------------------|
| 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>$I_{\text{FAV}}$ | 25.0 A<br>20.0 A             |
| Forward voltage – Durchlaßspannung                                                                     | $T_j = 25^\circ\text{C}$ | $I_F = 12.5\text{ A}$  | $V_F$                                | < 1.2 V <sup>1)</sup>        |
| Leakage current – Sperrstrom                                                                           | $T_j = 25^\circ\text{C}$ | $V_R = V_{\text{RRM}}$ | $I_R$                                | < 25 µA                      |
| Isolation voltage terminals to case<br>Isolationsspannung Anschlüsse zum Gehäuse                       |                          |                        | $V_{\text{ISO}}$                     | > 2500 V                     |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse                          |                          |                        | $R_{\text{thC}}$                     | < 2.0 K/W                    |
| Admissible torque for mounting<br>Zulässiges Anzugsdrehmoment                                          |                          | 10-32 UNF<br>M 5       |                                      | 18 ± 10% lb.in<br>2 ± 10% Nm |



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