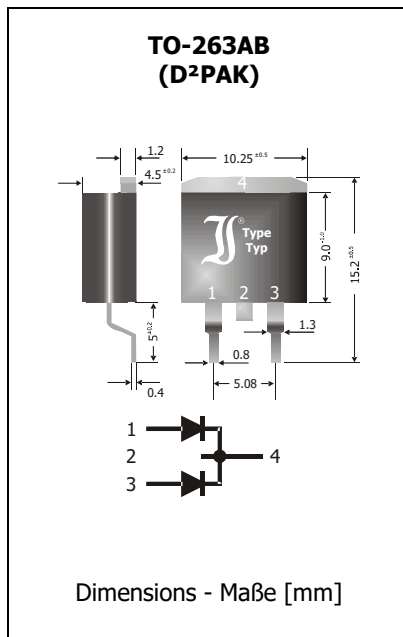


**SK3020CD2 ... SK30100CD2**  
**SMD Schottky Barrier Rectifier Diodes**  
**SMD Schottky-Gleichrichterdioden**
 $I_{FAV} = 2 \times 15 \text{ A}$      $V_{RRM} = 20 \dots 100 \text{ V}$   
 $V_{F1} < 0.49 \text{ V}$      $I_{FSM} = 280/320 \text{ A}$   
 $T_{jmax} = 150^\circ\text{C}$ 

Version 2017-06-02

**Typical Applications**

Solar Bypass Diodes, Polarity Protection, Free-wheeling diodes, Output Rectification  
Commercial grade <sup>1)</sup>

**Features**

Dual diode, common cathode  
Best trade-off between  $V_F$  and  $I_R$  <sup>2)</sup>  
Low power losses  
Compliant to RoHS, REACH, Conflict Minerals <sup>1)</sup>

**Mechanical Data <sup>1)</sup>**

Packed in tubes/cardboards  
*On request: on 13" reel*

Weight approx.

Case material

Solder &amp; assembly conditions



50/1000  
800

1.6 g

UL 94V-0

260°C/10s  
MSL = 1

**Typische Anwendungen**

Solar-Bypassdioden, Verpolschutz, Freilaufdioden, Ausgangsgerichtung  
Standardausführung <sup>1)</sup>

**Besonderheiten**

Doppeldiode, gemeinsame Kathode  
Optimale Auswahl von  $V_F$  und  $I_R$  <sup>2)</sup>  
Niedrige Verlustleistung  
Konform zu RoHS, REACH, Konfliktmineralien <sup>1)</sup>

**Mechanische Daten <sup>1)</sup>**

Verpackt in Stangen/Kartons  
*Auf Anfrage: auf 13" Rolle*

Gewicht ca.

Gehäusematerial

Löt- und Einbaubedingungen

**Maximum ratings <sup>3)</sup>****Grenzwerte <sup>3)</sup>**

| Type<br>Typ | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| SK3020CD2   | 20                                                                                   | 20                                                                      |
| SK3030CD2   | 30                                                                                   | 30                                                                      |
| SK3040CD2   | 40                                                                                   | 40                                                                      |
| SK3045CD2   | 45                                                                                   | 45                                                                      |
| SK3050CD2   | 50                                                                                   | 50                                                                      |
| SK3060CD2   | 60                                                                                   | 60                                                                      |
| SK3080CD2   | 80                                                                                   | 80                                                                      |
| SK30100CD2  | 100                                                                                  | 100                                                                     |

|                                                                                                        |                           |                                    |                                 |                |                                                     |
|--------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------|---------------------------------|----------------|-----------------------------------------------------|
| Max. average forward rectified current<br>Dauerstrom in Einwegschaltung                                | $T_C = 100^\circ\text{C}$ |                                    |                                 | $I_{FAV}$      | 15 A <sup>4)</sup><br>30 A <sup>5)</sup>            |
| Peak forward surge current<br>Stoßstrom in Fluss-Richtung                                              | 20 ... 60 V               | Half sine-wave<br>Sinus-Halbwellen | 50 Hz (10 ms)<br>60 Hz (8.3 ms) | $I_{FSM}$      | 280 A <sup>4)</sup><br>240 A <sup>4)</sup>          |
| Peak forward surge current<br>Stoßstrom in Fluss-Richtung                                              | 80 ... 100V               | Half sine-wave<br>Sinus-Halbwellen | 50 Hz (10 ms)<br>60 Hz (8.3 ms) | $I_{FSM}$      | 320 A <sup>4)</sup><br>270 A <sup>4)</sup>          |
| Junction temperature – Sperrschichttemperatur<br>in DC forward mode – bei Gleichstrom-Durchlassbetrieb |                           |                                    |                                 | $T_j$<br>$T_j$ | -50...+150°C<br>≤ 200°C <sup>2)</sup> <sup>6)</sup> |
| Storage temperature – Lagerungstemperatur                                                              |                           |                                    |                                 | $T_s$          | -50...+175°C                                        |

1 Please note the [detailed information on our website](#) or at the beginning of the data book

Bitte beachten Sie die [detaillierten Hinweise auf unserer Internetseite](#) bzw. am Anfang des Datenbuches

2 Refer to Diode Application Note "Reliability of Bypass Diodes" – Siehe Diode Applikationsschrift „Reliability of Bypass Diodes“

3  $T_A = 25^\circ\text{C}$  unless otherwise specified –  $T_A = 25^\circ\text{C}$  wenn nicht anders angegeben

4 Valid per diode – Gültig pro Diode

5 Valid per device (parallel operation) – Gültig pro Bauteil (Parallelbetrieb)

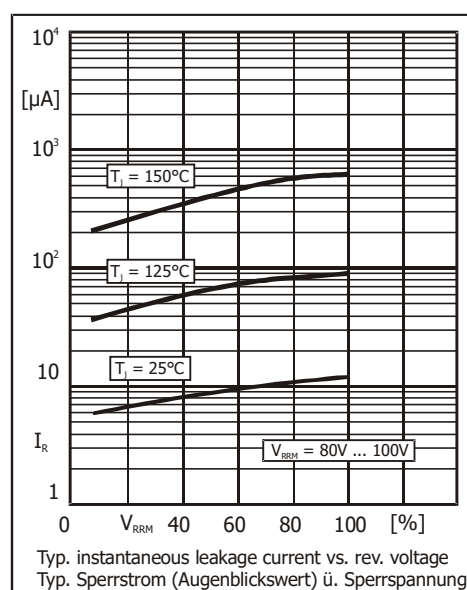
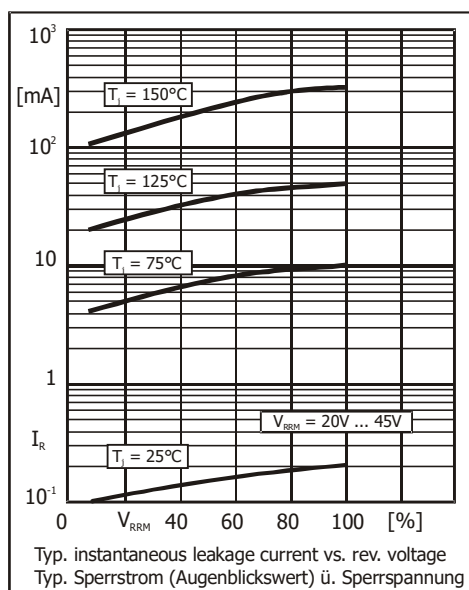
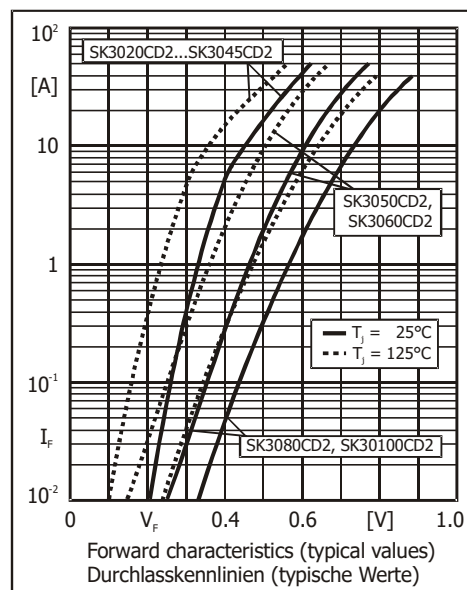
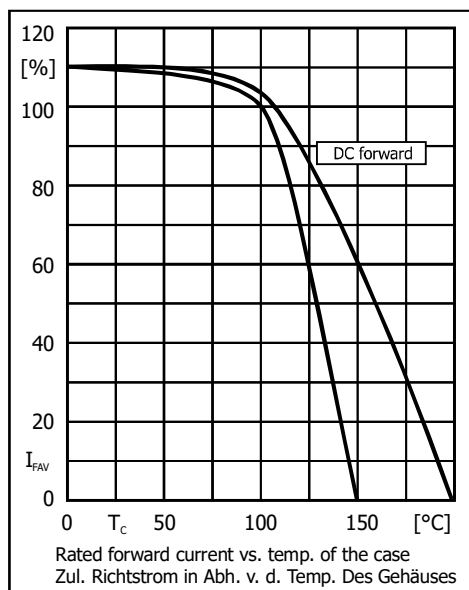
6 Meets the Requirements of IEC 61215 bypass diode thermal test – Erfüllt die Anforderungen des IEC 61215 Bypass-Diodentests

**Characteristics**
**Kennwerte**

| Type                    | Forward voltage<br>Durchlass-Spannung |             |         | Forward voltage<br>Durchlass-Spannung |             |         | Junction capacitance<br>Sperrschichtkapazität |             |
|-------------------------|---------------------------------------|-------------|---------|---------------------------------------|-------------|---------|-----------------------------------------------|-------------|
| Type                    | $V_F$ [V] <sup>1)</sup>               | @ $I_F$ [A] | @ $T_j$ | $V_F$ [V] <sup>1)</sup>               | @ $I_F$ [A] | @ $T_j$ | $C_j$ [pF] <sup>1)</sup>                      | @ $V_R$ [V] |
| SK3020CD2 ... SK3045CD2 | < 0.49                                |             |         | < 0.55                                |             |         | typ. 720                                      |             |
| SK3050CD2, SK3060CD2    | < 0.63                                | 5           | 25°C    | < 0.70                                | 15          | 25°C    | typ. 720                                      | 4           |
| SK3080CD2, SK30100CD2   | < 0.77                                |             |         | < 0.85                                |             |         | typ. 350                                      |             |

|                                                                               |                                                       |                 |           |                                                    |
|-------------------------------------------------------------------------------|-------------------------------------------------------|-----------------|-----------|----------------------------------------------------|
| Leakage current<br>Sperrstrom                                                 | $T_j = 25^\circ\text{C}$<br>$T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$ | $I_R$     | < 500 $\mu\text{A}$<br>typ. 5 mA                   |
| Thermal resistance junction to case<br>Wärmewiderstand Sperrschicht – Gehäuse | Per diode – Pro Diode<br>Per device – Pro Bauteil     |                 | $R_{thC}$ | < 3.0 K/W <sup>2)</sup><br>< 1.5 K/W <sup>2)</sup> |



**Disclaimer:** See data book page 2 or [website](#)  
**Haftungsschluss:** Siehe Datenbuch Seite 2 oder [Internet](#)

- Valid per diode – Gültig pro Diode
- Valid per device (parallel operation); measured at heat flange  
Gültig pro Bauteil (Parallelbetrieb); gemessen an der Kühlfahne