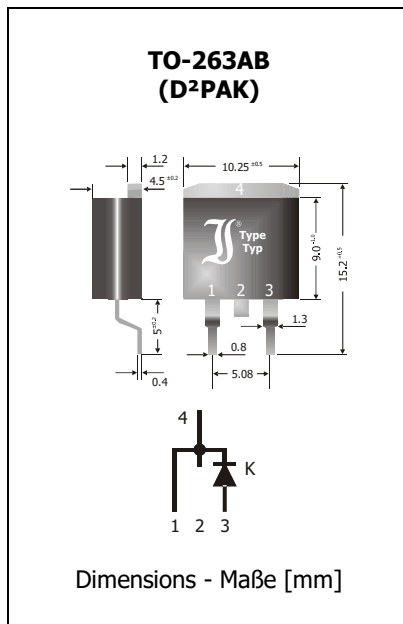


**SK1020D2 ... SK10100D2**  
**SMD Schottky Barrier Rectifier Diodes**  
**SMD Schottky-Gleichrichterdioden**

$I_{FAV} = 10 \text{ A}$   
 $V_{F1} < 0.50 \text{ V}$   
 $T_{jmax} = 150^\circ\text{C}$

$V_{RRM} = 20...100 \text{ V}$   
 $I_{FSM1} = 135/150 \text{ A}$   
 $V_{F1@5A} < 0.47 \text{ V}$

Version 2019-06-13

**Typical Applications**

Output Rectification in DC/DC Converters and Power Supplies  
 Polarity Protection, Free-wheeling diodes  
 Commercial grade <sup>1)</sup>

**Features**

Low forward voltage drop  
 High power dissipation  
 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 & assembly conditions



50/1000  
 800  
 1.6 g  
 UL 94V-0  
 245°C/10s  
 MSL = 1

**Typische Anwendungen**

Ausgangsgleichrichtung in DC/DC-Wandlern und Netzteilen  
 Verpolschutz, Freilaufdiode  
 Standardausführung <sup>1)</sup>

**Besonderheiten**

Niedrige Fluss-Spannung  
 Hohe Leistungsfähigkeit  
 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>2)</sup>****Grenzwerte <sup>2)</sup>**

Type Typ	Repetitive peak reverse voltage Periodische Spitzensperrensorgung $V_{RRM} [V]$	Surge peak reverse voltage Stoßspitzensperrensorgung $V_{RSM} [V]$
SK1020D2*	20	20
SK1030D2*	30	30
SK1040D2*	40	40
SK1045D2*	45	45
SK1045D2-3G	45	45
SK1050D2	50	50
SK1060D2	60	60
SK1080D2	80	80
SK10100D2	100	100

\* Will be replaced by /  
 Werden ersetzt durch  
**SK1045D2-3G**

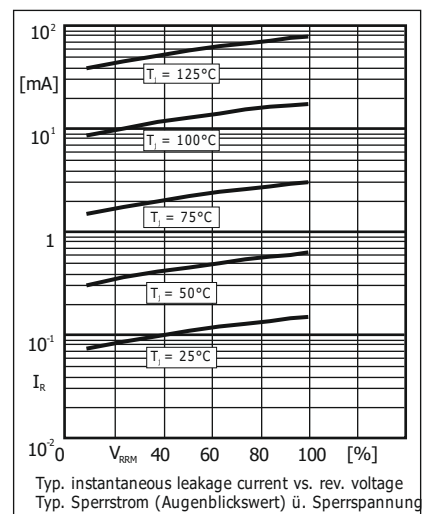
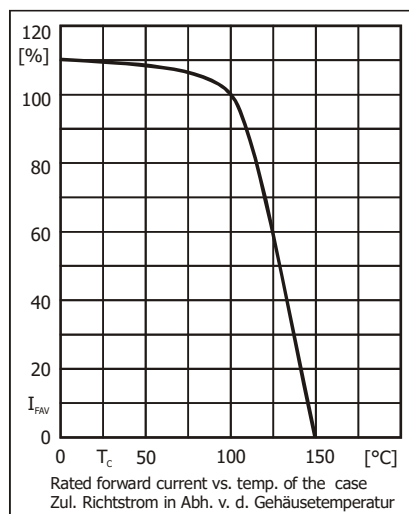
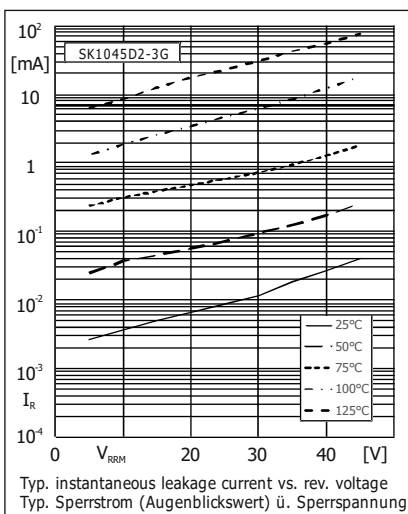
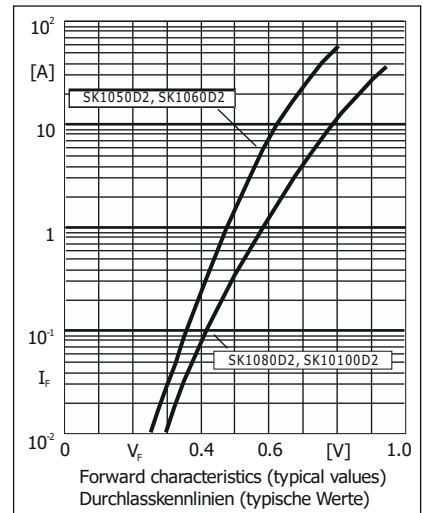
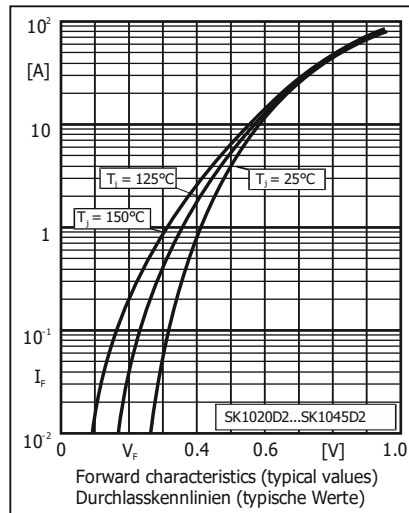
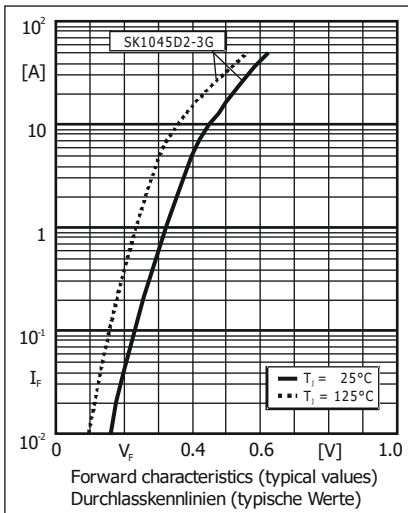
Max. average forward current – Dauergrenzstrom in Einwegschaltung	$T_C = 100^\circ\text{C}^3)$	$I_{FAV}$	10 A
Repetitive peak forward current – Periodischer Spitzenstrom $f > 15 \text{ Hz}$	$T_C = 100^\circ\text{C}^3)$	$I_{FRM}$	30 A
Peak forward surge current (Half sine-wave) Stoßstrom in Fluss-Richtung (Sinus-Halbwellen)	SK1020D2 ... SK1060D2 50 Hz (10 ms) SK1045D2-3G 60 Hz (8.3 ms)	$I_{FSM}$	135 A 150 A
Rating for fusing – Grenzlastintegral	$t < 10 \text{ ms}$	$i^2t$	80 A <sup>2</sup> s
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		$T_j$ $T_s$	-50...+150°C -50...+175°C

- 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
- $T_A = 25^\circ\text{C}$  unless otherwise specified –  $T_A = 25^\circ\text{C}$  wenn nicht anders angegeben
- Measured at heat flange – Gemessen an der Kühlfahne

**Characteristics**
**Kennwerte**

Type Typ	Forward voltage Durchlass-Spannung			Forward voltage Durchlass-Spannung			Junction capacitance Sperrschichtkapazität	
	$V_F$ [V]	@ $I_F$ [A]	@ $T_j$	$V_F$ [V]	@ $I_F$ [A]	@ $T_j$	$C_j$ [pF]	@ $V_R$ [V]
SK1020D2 ... SK1045D2	< 0.51			< 0.55			typ. 500	
SK1045D2-3G	< 0.47	5	25°C	< 0.50	10	25°C	typ. 510	4
SK1050D2, SK1060D2	< 0.63			< 0.70			typ. 500	
SK1080D2, SK10100D2	< 0.71			< 0.83			typ. 300	

Leakage current Sperrstrom	SK1020D2 ... SK1045D2	$T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$	$V_R = V_{RRM}$	$I_R$	< 300 $\mu\text{A}$ < 45 mA
	SK1045D2-3G	$T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$	$V_R = V_{RRM}$	$I_R$	< 120 $\mu\text{A}$ < 15 mA
	SK1050D2 ... SK10100D2	$T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$	$V_R = V_{RRM}$	$I_R$	< 200 $\mu\text{A}$ < 25 mA
Thermal resistance junction to case Wärmewiderstand Sperrschicht – Gehäuse				$R_{thC}$	< 1.5 K/W <sup>1)</sup>



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

1 Measured at heat flange – Gemessen an der Kühlfahne

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