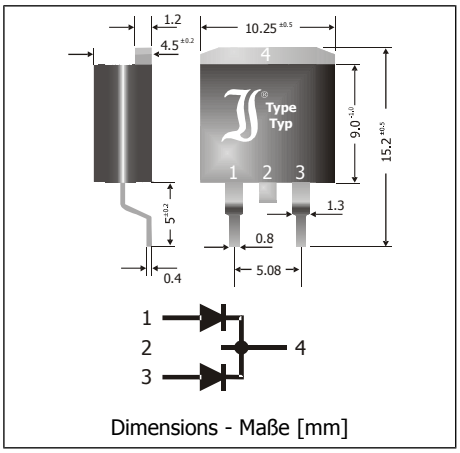
SK3020CD2 ... SK30100CD2

Surface Mount Schottky Rectifier Diodes– Common Cathode
Schottky-Gleichrichterdioden für die Oberflächenmontage – Gemeinsame Kathode

Version 2013-09-25



Dimensions - Maße [mm]

Nominal Current Nennstrom	30 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	20...100 V
Plastic case Kunststoffgehäuse	TO-263 D2PAK
Weight approx. – Gewicht ca.	1.6 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging in tubes Standard Lieferform in Stangen	

RoHS Pb WEEE ELV

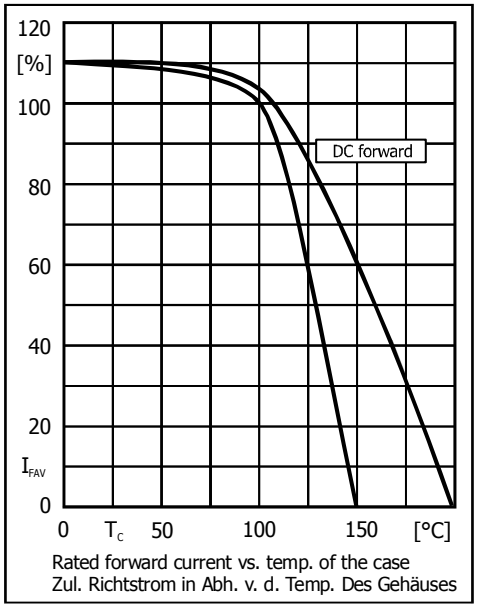
Green Molding
Halogen-Free[1]

Maximum ratings and Characteristics — Grenz- und Kennwerte

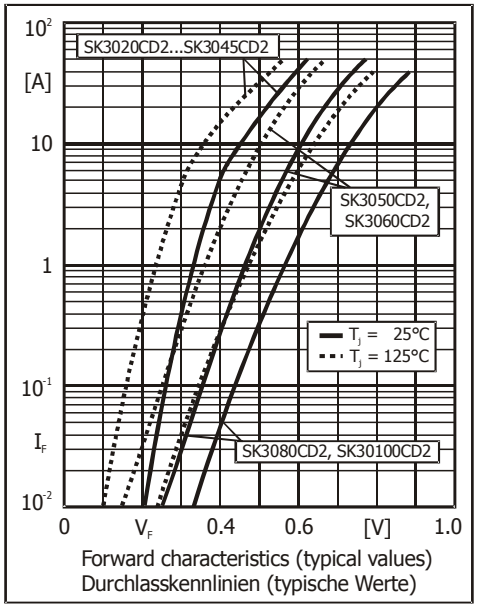
Type Typ	Repetitive peak reverse voltage Periodische Spitzensperrspannung V_{RRM} [V]	Surge peak reverse voltage Stoßspitzensperrspannung V_{RSM} [V]	Forward Voltage Durchlass-Spannung V_F [V] T_j = 25°C [2]	
			I_F = 5 A	I_F = 15 A
SK3020CD2	20	20	< 0.49	< 0.55
SK3030CD2	30	30	< 0.49	< 0.55
SK3040CD2	40	40	< 0.49	< 0.55
SK3045CD2	45	45	< 0.49	< 0.55
SK3050CD2	50	50	< 0.63	< 0.70
SK3060CD2	60	60	< 0.63	< 0.70
SK3080CD2	80	80	< 0.77	< 0.85
SK30100CD2	100	100	< 0.77	< 0.85

Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last	T_C = 100°C	I_{FAV} I_{FAV}	15 A [3] 30 A [3]
Repetitive peak forward current – Periodischer Spitzenstrom	f > 15 Hz	I_{FRM}	55 A [3]
Peak forward surge current 50/60 Hz half sine-wave SK3020 ... 60CD2 Stoßstrom für eine 50/60 Hz Sinus-Halbwelle SK3080 ... 100CD2	T_A = 25°C T_A = 25°C	I_{FSM} I_{FSM}	280/320 A [3] 240/270 A [3]
Rating for fusing, t < 10 ms – Grenzlastintegral, t < 10 ms	T_A = 25°C	i^2t	390 A^2s [3]
Junction temperature – Sperrschichttemperatur in DC forward mode – bei Gleichstrom-Durchlassbetrieb		T_j T_j	-50...+150°C ≤ 200°C [4]
Storage temperature – Lagerungstemperatur		T_S	-50...+175°C
Leakage current - Sperrstrom	T_j = 25°C V_R = V_{RRM}	I_R	< 500 µA [2]
Thermal resistance junction to case - Wärmewiderstand Sperrschicht - Gehäuse		R_{thC}	< 1.5 K/W [3]

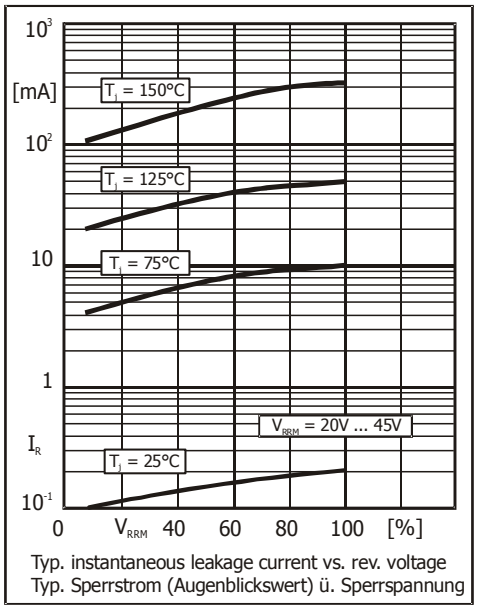
1 From 2H/2013 – Ab 2H/2013
2 Per diode – Pro Diode
3 Per device (parallel operation) – Pro Bauteil (Parallelbetrieb)
4 For more details, ask for the Diotec Application Note "Reliability of Solar Bypass Diodes"
Weitere Infos in der Diotec Applikationsschrift „Reliability of Solar Bypass Diodes"



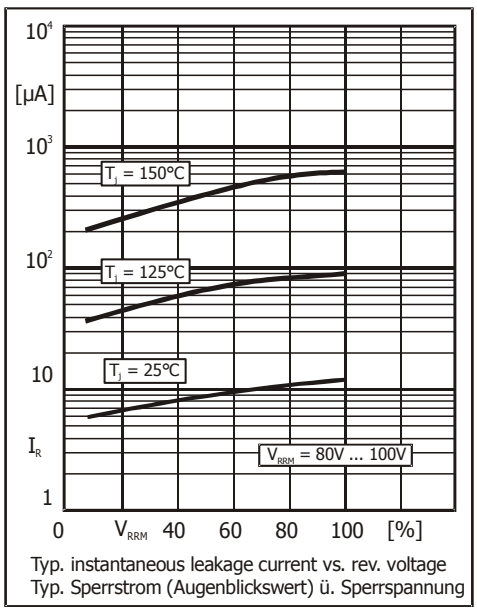
Rated forward current vs. temp. of the case
Zul. Richtstrom in Abh. v. d. Temp. Des Gehäuses



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)



Typ. instantaneous leakage current vs. rev. voltage
Typ. Sperrstrom (Augenblickswert) ü. Sperrspannung



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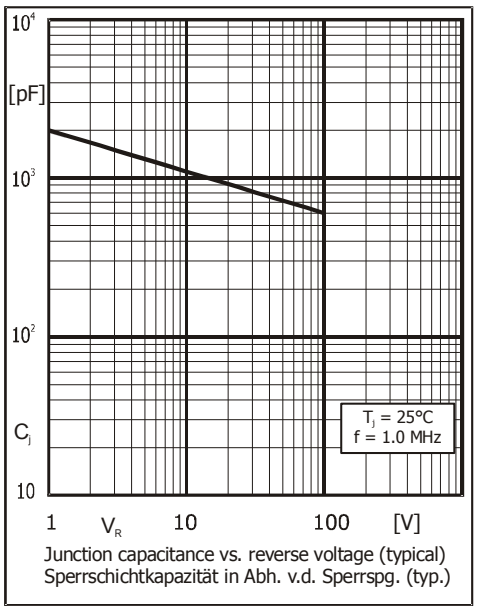

Junction capacitance vs. reverse voltage (typical)
Sperrschichtkapazität in Abh. v.d. Sperrspg. (typ.)

