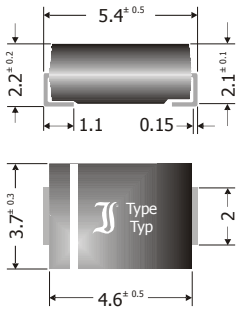
SK52 ... SK510

Surface Mount Schottky Rectifier Diodes
Schottky-Gleichrichterdioden für die Oberflächenmontage

Version 2012-10-17



Dimensions - Maße [mm]

Nominal current – Nennstrom	5 A
Repetitive peak reverse voltage Periodische Spitzensperrspannung	20...100 V
Plastic case Kunststoffgehäuse	~ SMB ~ DO-214AA
Weight approx. – Gewicht ca.	0.1 g
Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert	
Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle	

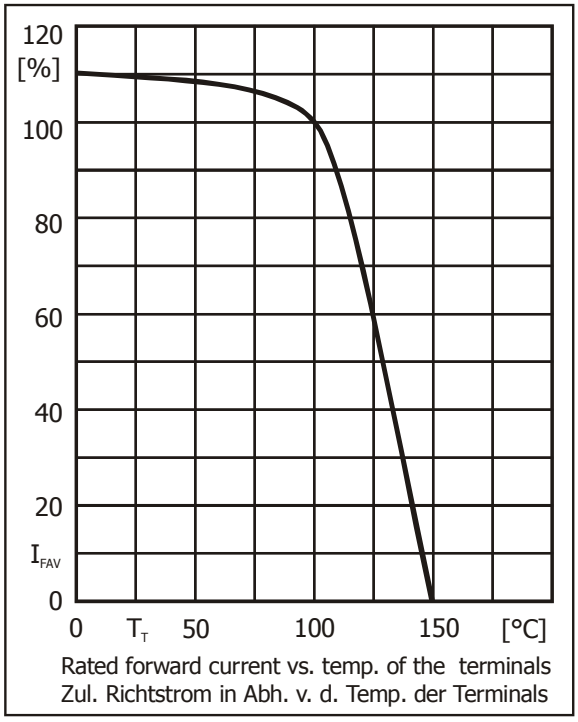
Maximum ratings **Grenzwerte**

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] [1]
SK52	20	20	< 0.55
SK53	30	30	< 0.55
SK54	40	40	< 0.55
SK55	50	50	< 0.68
SK56	60	60	< 0.68
SK58	80	80	< 0.83
SK510	100	100	< 0.83

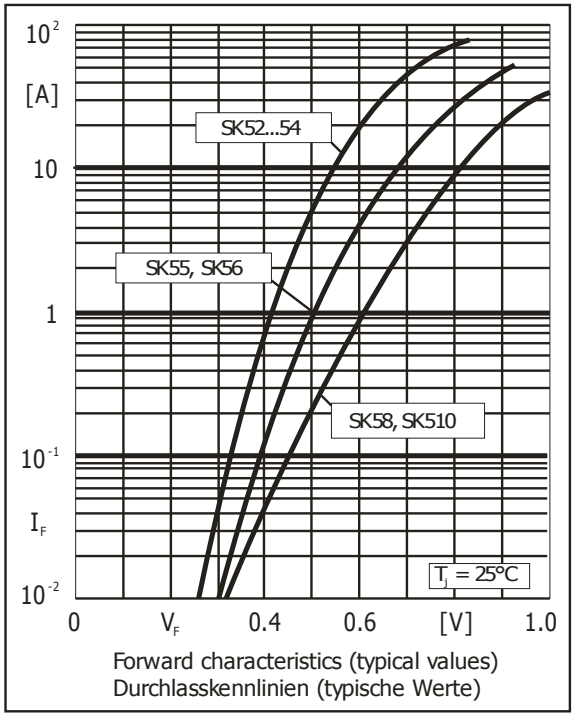
Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last	SK52...SK56 SK58, SK510	I_{FAV} I_{FAV}	5 A [2] 5 A [3]
Repetitive peak forward current Periodischer Spitzenstrom	f > 15 Hz	I_{FRM}	20 A [2]
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle	T_A = 25°C	I_{FSM}	100/110 A
Rating for fusing, t < 10 ms Grenzlastintegral, t < 10 ms	T_A = 25°C	i^2t	50 A^2s
Operating junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur	T_j T_S		-50...+150°C -50...+150°C

1 I_F = 5 A, T_j = 25°C
2 Max. temperature of the terminals T_T = 100°C – Max. Temperatur der Anschlüsse T_T = 100°C
3 Max. temperature of the terminals T_T = 85°C – Max. Temperatur der Anschlüsse T_T = 85°C

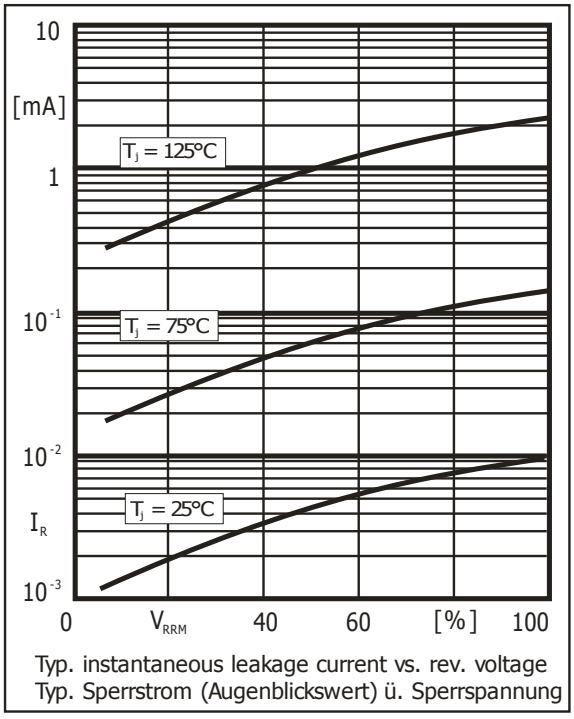
Characteristics				**Kennwerte**
Leakage current Sperrstrom	T_j = 25°C T_j = 100°C	$V_R = V_{RRM}$ $V_R = V_{RRM}$	I_R I_R	< 150 µA < 20 mA
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft			R_{thA}	< 45 K/W [1])
Thermal resistance junction to terminal Wärmewiderstand Sperrschicht – Anschluss			R_{thT}	< 15 K/W



Rated forward current vs. temp. of the terminals
Zul. Richtstrom in Abh. v. d. Temp. der Terminals



Forward characteristics (typical values)
Durchlasskennlinien (typische Werte)



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

1 Mounted on P.C. board with 50 mm² copper pads at each terminal
Montage auf Leiterplatte mit 50 mm² Kupferbelag (Lötpad) an jedem Anschluss