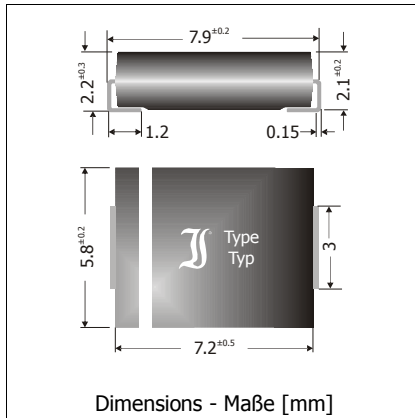


## SK82 ... SK810

### Surface Mount Schottky Rectifier Diodes Schottky-Gleichrichterdiodes für die Oberflächenmontage

Version 2013-12-11



Nominal current – Nennstrom

8 A

Repetitive peak reverse voltage

20...100 V

Periodische Spitzensperrspannung

Plastic case

~ SMC

Kunststoffgehäuse

~ DO-214AB

Weight approx. – Gewicht ca.

0.21g

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<br>Typ | Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung<br>$V_{RRM}$ [V] | Surge peak reverse voltage<br>Stoßspitzensperrspannung<br>$V_{RSM}$ [V] | Forward voltage<br>Durchlass-Spannung<br>$V_F$ [V] <sup>1)</sup> |             |
|-------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------|-------------|
|             |                                                                                      |                                                                         | $I_F = 5$ A                                                      | $I_F = 8$ A |
| SK82        | 20                                                                                   | 20                                                                      | < 0.50                                                           | < 0.55      |
| SK83        | 30                                                                                   | 30                                                                      | < 0.50                                                           | < 0.55      |
| SK84        | 40                                                                                   | 40                                                                      | < 0.50                                                           | < 0.55      |
| SK85        | 50                                                                                   | 50                                                                      | < 0.63                                                           | < 0.70      |
| SK86        | 60                                                                                   | 60                                                                      | < 0.63                                                           | < 0.70      |
| SK88        | 80                                                                                   | 80                                                                      | < 0.77                                                           | < 0.85      |
| SK810       | 100                                                                                  | 100                                                                     | < 0.77                                                           | < 0.85      |

|                                                                                                      |                                                       |           |                                                                         |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------|-------------------------------------------------------------------------|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last      | $T_T = 100^\circ\text{C}$<br>$T_T = 85^\circ\text{C}$ | $I_{FAV}$ | 8 A <sup>1)</sup><br>8 A <sup>2)</sup>                                  |
| Repetitive peak forward current<br>Periodischer Spitzenstrom                                         | $f > 15$ Hz                                           | $I_{FRM}$ | 30 A <sup>2)</sup><br>27 A <sup>3)</sup>                                |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwellen  | $T_A = 25^\circ\text{C}$                              | $I_{FSM}$ | 140/150 A <sup>2)</sup><br>125/135 A <sup>3)</sup>                      |
| Rating for fusing, $t < 10$ ms<br>Grenzlastintegral, $t < 10$ ms                                     | $T_A = 25^\circ\text{C}$                              | $i^2t$    | 100 A <sup>2</sup> s <sup>2)</sup><br>78 A <sup>2</sup> s <sup>3)</sup> |
| Operating junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur | $T_j$<br>$T_s$                                        |           | -50...+150°C<br>-50...+150°C                                            |

1  $T_j = 25^\circ\text{C}$ 

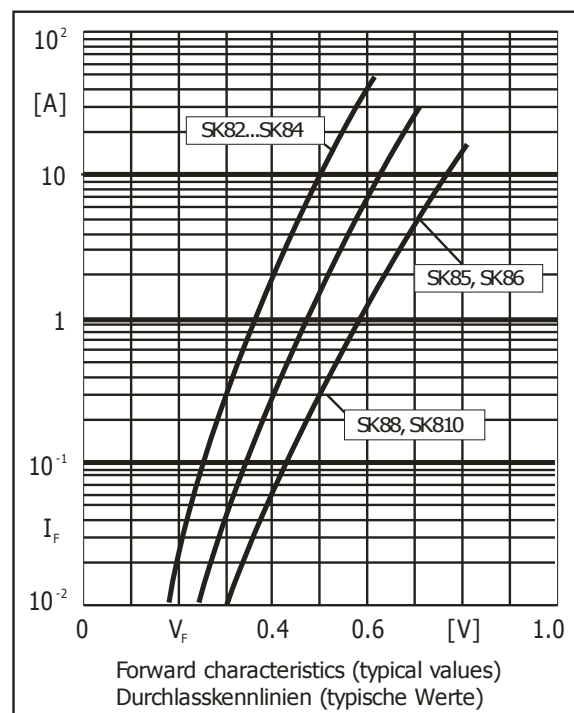
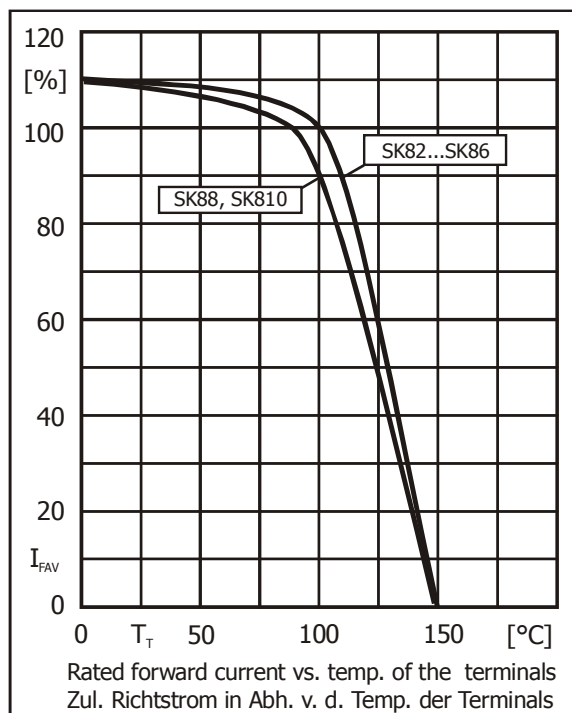
1 SK82 ... SK86

2 SK88 ... SK810

## Characteristics

## Kennwerte

|                                                                                             |                                                       |                                    |                |                                          |
|---------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------|----------------|------------------------------------------|
| Leakage current<br>Sperrstrom                                                               | $T_j = 25^\circ\text{C}$<br>$T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$<br>$V_R = V_{RRM}$ | $I_R$<br>$I_R$ | $< 200 \mu\text{A}$<br>$< 20 \text{ mA}$ |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |                                                       |                                    | $R_{thA}$      | $< 40 \text{ K/W}^1)$                    |
| Thermal resistance junction to terminal<br>Wärmewiderstand Sperrschicht – Anschluss         |                                                       |                                    | $R_{thT}$      | $< 10 \text{ K/W}$                       |



1 Mounted on P.C. board with 50 mm<sup>2</sup> copper pads at each terminal  
Montage auf Leiterplatte mit 50 mm<sup>2</sup> Kupferbelag (Lötpad) an jedem Anschluss