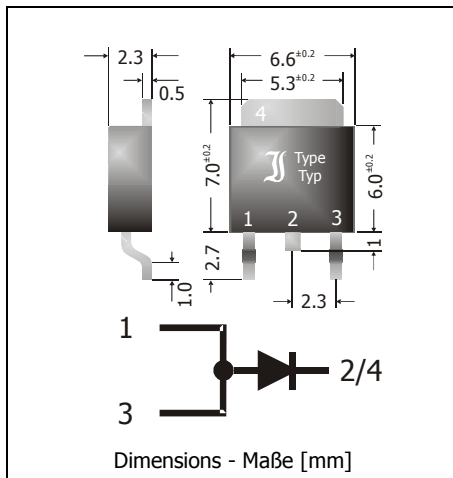


SK1020D1 ... SK10100D1

Surface Mount Schottky Rectifiers – Single Diode Schottky-Gleichrichter für die Oberflächenmontage – Einzeldiode

Version 2012-04-10



| | |
|---|-------------------|
| Nominal Current Nennstrom | 10 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 20...100 V |
| Plastic case Kunststoffgehäuse | TO-252AA D-PAK |
| Weight approx. Gewicht ca. | 0.32g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert | |
| Standard packaging taped and reeled Standard Lieferform gegurtet auf Rolle | |



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] ¹⁾ | |
|--|--|---|--|---------------------|
| | | | $I_F = 5 A$ | $I_F = 10 A$ |
| SK1020D1 | 20 | 20 | < 0.51 | < 0.55 |
| SK1030D1 | 30 | 30 | < 0.51 | < 0.55 |
| SK1040D1 | 40 | 40 | < 0.51 | < 0.55 |
| SK1045D1 | 45 | 45 | < 0.51 | < 0.55 |
| SK1050D1 | 50 | 50 | < 0.62 | < 0.70 |
| SK1060D1 | 60 | 60 | < 0.62 | < 0.70 |
| SK1080D1 | 80 | 80 | < 0.71 | < 0.83 |
| SK10100D1 | 100 | 100 | < 0.71 | < 0.83 |
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | | $T_C = 100^\circ C$ | I_{FAV} | 10 A |
| Repetitive peak forward current Periodischer Spitzenstrom | | $f > 15 Hz$ | I_{FRM} | 30 A ²⁾ |
| Peak forward surge current 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwelle | SK1020... SK1060D1 | $T_A = 25^\circ C$ | I_{FSM} | 135/150 A |
| | SK1080... SK10100D1 | $T_A = 25^\circ C$ | I_{FSM} | 115/125 A |
| Rating for fusing, $t < 10 ms$ Grenzlastintegral, $t < 10 ms$ | | $T_A = 25^\circ C$ | i^2t | 80 A ² s |
| Junction temperature – Sperrschichttemperatur | | | T_j | -50...+150°C |
| Storage temperature – Lagerungstemperatur | | | T_s | -50...+175°C |

1 $T_j = 25^\circ C$ 2 Max. temperature of the case $T_C = 100^\circ C$ – Max. Temperatur des Gehäuses $T_C = 100^\circ C$

Characteristics
Kennwerte

| | | | | | |
|---|--------------------------|---|-----------------|-----------|--------------------------------|
| Leakage current Sperrstrom | SK1020D1... SK1045D1 | $T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 300 μA < 45 mA |
| Leakage current Sperrstrom | SK1050D1... SK10100D1 | $T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 200 μA < 25 mA |
| Thermal resistance junction to case Wärmewiderstand Sperrschicht - Gehäuse | | | | R_{thc} | < 2.5 K/W |

