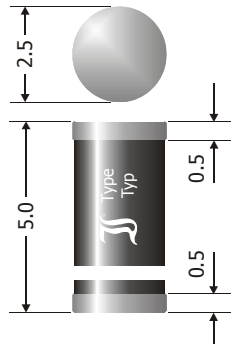
# SMS320 ... SMS3100

## Surface Mount Schottky Rectifiers
## Schottky-Gleichrichter für die Oberflächenmontage

Version 2006-06-26




Dimensions - Maße [mm]

| | |
|---|---|
| Nominal current – Nennstrom | 3 A |
| Repetitive peak reverse voltage<br>Periodische Spitzensperrspannung | 20...100 V |
| Plastic case MELF<br>Kunststoffgehäuse MELF | DO-213AB |
| Weight approx. – Gewicht ca. | 0.12g |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert | |
| Standard packaging taped and reeled<br>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] [1] |
|---|---|---|---|
| SMS320 | 20 | 20 | < 0.50 |
| SMS330 | 30 | 30 | < 0.50 |
| SMS340 | 40 | 40 | < 0.50 |
| SMS350 | 50 | 50 | < 0.70 |
| SMS360 | 60 | 60 | < 0.70 |
| SMS390 | 90 | 90 | < 0.79 |
| SMS3100 | 100 | 100 | < 0.79 |

| | | | |
|---|---|---|---|
| Max. average forward rectified current, R-load<br>Dauergrenzstrom in Einwegschaltung mit R-Last | $T_T$ = 100°C | $I_{FAV}$ | 3 A |
| Repetitive peak forward current<br>Periodischer Spitzenstrom | f > 15 Hz | $I_{FRM}$ | 12 A [2] |
| Peak forward surge current, 50/60 Hz half sine-wave<br>Stoßstrom für eine 50/60 Hz Sinus-Halbwelle | $T_A$ = 25°C | $I_{FSM}$ | 50/55 A |
| Rating for fusing, t < 10 ms<br>Grenzlastintegral, t < 10 ms | $T_A$ = 25°C | $i^2t$ | 12.5 $A^2s$ |
| Operating junction temperature – Sperrschichttemperatur<br>Storage temperature – Lagerungstemperatur | | $T_j$<br>$T_S$ | -50...+150°C<br>-50...+150°C |

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

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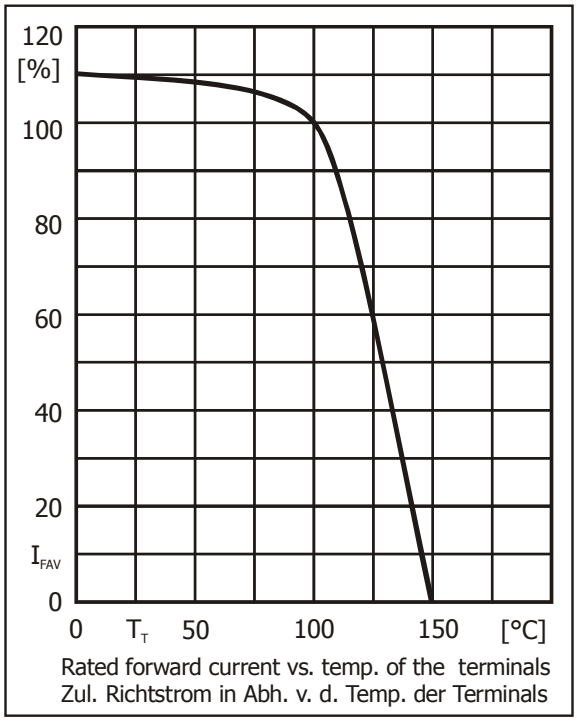
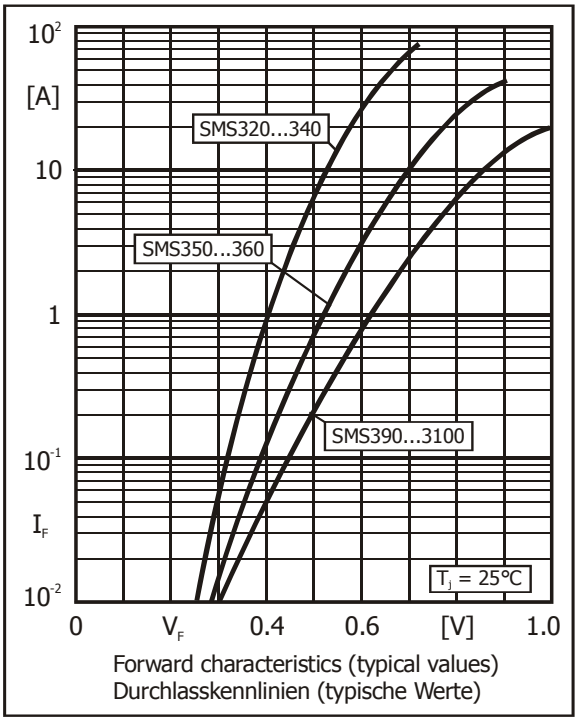
| **Characteristics** | | | | **Kennwerte** |
|---|---|---|---|---|
| Leakage current<br>Sperrstrom | $T_j$ = 25°C<br>$T_j$ = 100°C | $V_R = V_{RRM}$<br>$V_R = V_{RRM}$ | $I_R$<br>$I_R$ | < 0.5 mA<br>< 10.0 mA |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft | | | $R_{thA}$ | < 45 K/W [1]) |
| Thermal resistance junction to terminal<br>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)

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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