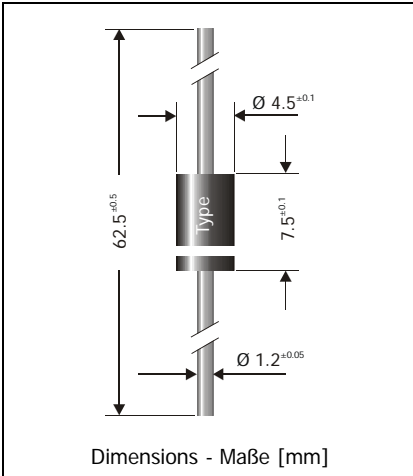


SB520 ... SB5100
Schottky Barrier Rectifiers
Schottky-Barrier-Gleichrichter

Version 2006-04-18



| | |
|---|------------|
| Nominal current Nennstrom | 5 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 20...100 V |
| Plastic case Kunststoffgehäuse | ~ DO-201 |
| Weight approx. Gewicht ca. | 1 g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert | |
| Standard packaging taped in ammo pack Standard Lieferform gegurtet in Ammo-Pack | |



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⁾ |
|-------------|--|---|--|
| SB520 | 20 | 20 | < 0.55 |
| SB530 | 30 | 30 | < 0.55 |
| SB540 | 40 | 40 | < 0.55 |
| SB550 | 50 | 50 | < 0.67 |
| SB560 | 60 | 60 | < 0.67 |
| SB590 | 90 | 90 | < 0.79 |
| SB5100 | 100 | 100 | < 0.79 |

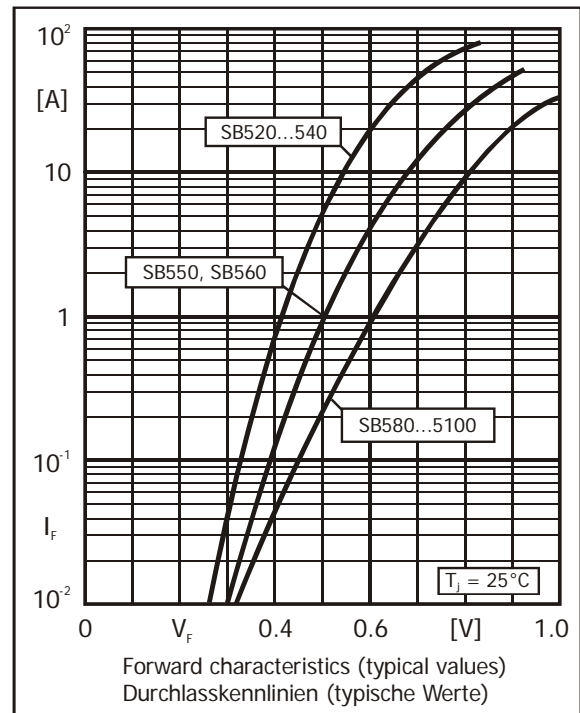
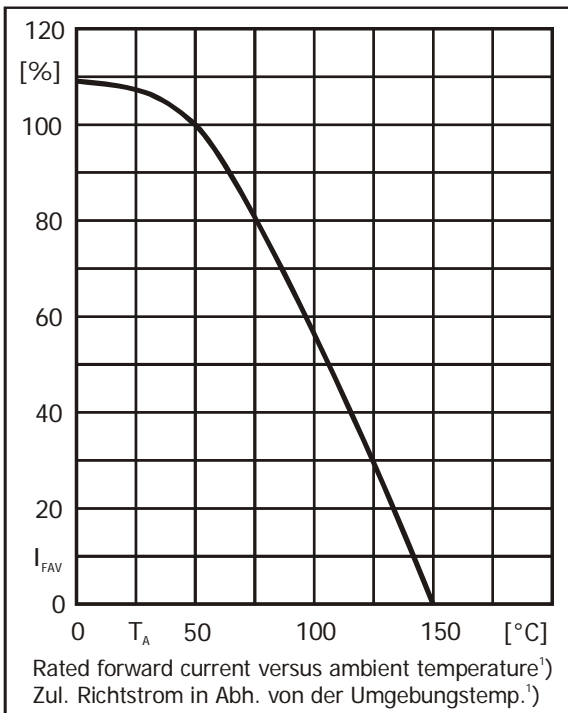
| | | | |
|---|--------------------------|----------------|------------------------------|
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | $T_A = 50^\circ\text{C}$ | I_{FAV} | 5 A ²⁾ |
| Repetitive peak forward current Periodischer Spitzenstrom | $f > 15\text{ Hz}$ | I_{FRM} | 20 A ²⁾ |
| Peak forward surge current, 50 Hz half sine-wave Stoßstrom für eine 50 Hz Sinus-Halbwelle | $T_A = 25^\circ\text{C}$ | I_{FSM} | 250 A |
| Rating for fusing, $t < 10\text{ ms}$ Grenzlastintegral, $t < 10\text{ ms}$ | $T_A = 25^\circ\text{C}$ | i^2t | 310 A ² s |
| Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur | | T_J T_S | -50...+150°C -50...+175°C |

1 $I_F = 5\text{ A}, T_J = 25^\circ\text{C}$

2 Valid, if leads are kept at ambient temperature at a distance of 10 mm from case
 Gültig, wenn die Anschlussdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

Characteristics
Kennwerte

| | | | | | |
|---|--------------------------|-----------------------------|------------------------------------|----------------|------------------------|
| Leakage current Sperrstrom | $T_j = 25^\circ\text{C}$ | SB520...560 SB590...5100 | $V_R = V_{RRM}$ $V_R = V_{RRM}$ | I_R I_R | < 0.5 mA < 0.6 mA |
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | | | | R_{thA} | < 25 K/W ¹⁾ |
| Thermal resistance junction to leads Wärmewiderstand Sperrschicht – Anschlussdraht | | | | R_{thL} | < 8 K/W |



¹ Valid, if leads are kept at ambient temperature at a distance of 10 mm from case
Gültig, wenn die Anschlussdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden