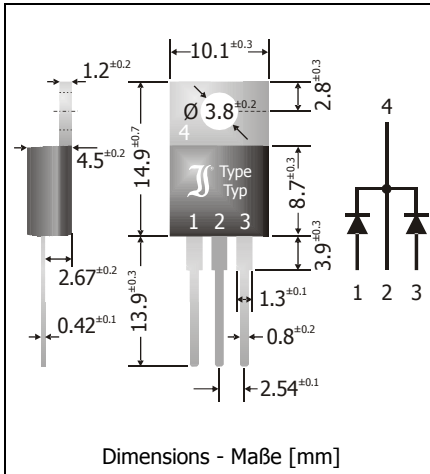



SBCT2020 ... SBCT20100

Schottky Barrier Rectifier Diodes – Common Cathode Schottky-Barrier-Gleichrichterdiolen – Gemeinsame Kathode

Version 2013-05-07



| | |
|---|---|
| Nominal Current Nennstrom | 20 A |
| Repetitive peak reverse voltage Periodische Spitzensperrspannung | 20...100 V |
| Plastic case – Kunststoffgehäuse | TO-220AB |
| Weight approx. Gewicht ca. | 2.2g |
| Plastic material has UL classification 94V-0 Gehäusematerial UL94V-0 klassifiziert |  |
| Standard packaging in tubes Standard Lieferform in Stangen | |

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) 2)} | |
|-------------|--|---|---|--------------|
| | | | $I_F = 5 A$ | $I_F = 10 A$ |
| SBCT2020 | 20 | 20 | < 0.52 | < 0.55 |
| SBCT2030 | 30 | 30 | < 0.52 | < 0.55 |
| SBCT2040 | 40 | 40 | < 0.52 | < 0.55 |
| SBCT2045 | 45 | 45 | < 0.52 | < 0.55 |
| SBCT2050 | 50 | 50 | < 0.63 | < 0.70 |
| SBCT2060 | 60 | 60 | < 0.63 | < 0.70 |
| SBCT2090 | 90 | 90 | < 0.77 | < 0.85 |
| SBCT20100 | 100 | 100 | < 0.77 | < 0.85 |

| | | | |
|--|---|----------------|--|
| Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last | $T_C = 100^\circ C$ | I_{FAV} | 10 A ¹⁾ 20 A ²⁾ |
| 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-Halbwellen | SBCT2020... SBCT2060 $T_A = 25^\circ C$ | I_{FSM} | 130/150 A ²⁾ |
| Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwellen | SBCT2080... SBCT20100 $T_A = 25^\circ C$ | I_{FSM} | 110/125 A ²⁾ |
| Rating for fusing, $t < 10 ms$ – Grenzlastintegral, $t < 10 ms$ | $T_A = 25^\circ C$ | i^2t | 80 A ² s ²⁾ |
| Junction temperature – Sperrschichttemperatur in DC forward mode – bei Gleichstrom-Durchlassbetrieb | | T_j T_j | -50...+150°C $\leq 200^\circ C$ |

1 $T_j = 25^\circ C$

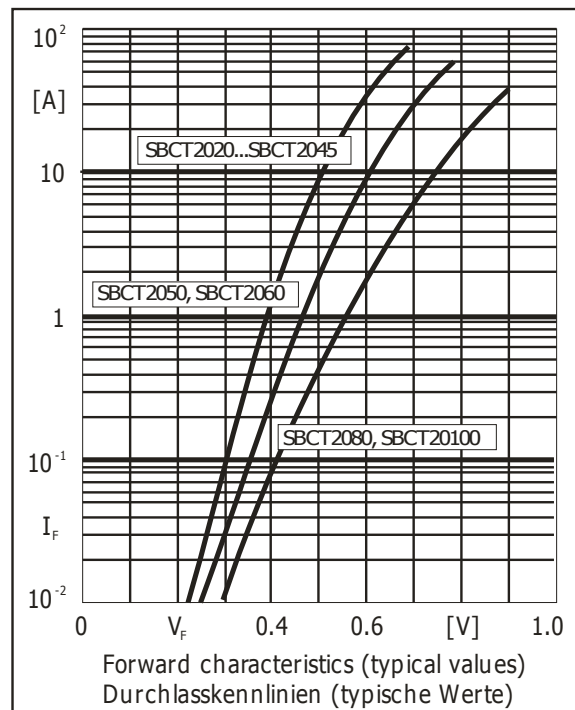
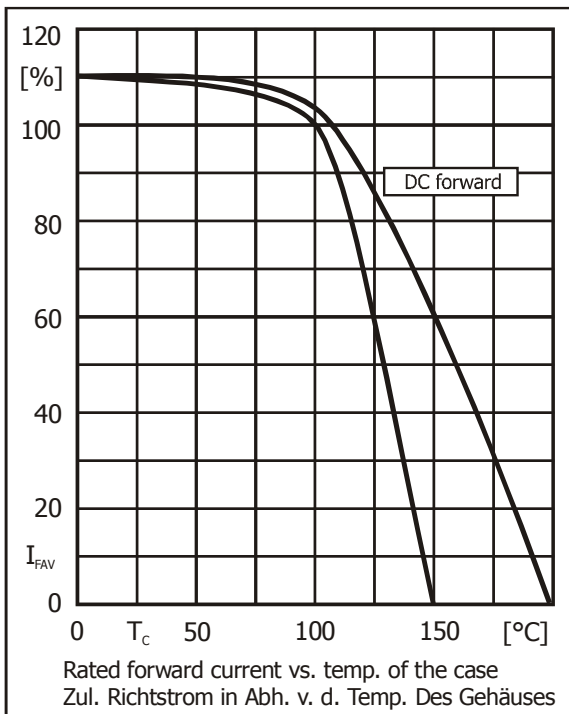
1 Per diode – Pro Diode

2 Per device (parallel operation) – Pro Bauteil (Parallelbetrieb)

Characteristics

Kennwerte

| | | | | |
|---|---|-----------------|-----------|-------------------------------|
| Leakage current Sperrstrom | $T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$ | $V_R = V_{RRM}$ | I_R | < 300 μA < 7 mA |
| Thermal resistance junction to case Wärmewiderstand Sperrschicht - Gehäuse | | | R_{thC} | < 1.5 K/W ¹⁾ |



1 Per device (parallel operation) – Pro Bauteil (Parallelbetrieb)