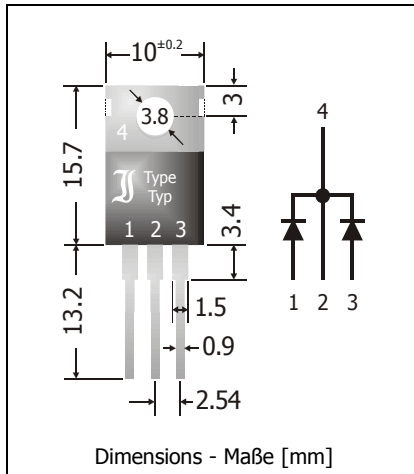



## SBCT1020 ... SBCT10100

### Schottky Barrier Rectifiers – Common Cathode Schottky-Barrier-Gleichrichter – Gemeinsame Kathode

Version 2007-01-17



Nominal Current Nennstrom	10 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] <sup>1) 2)</sup>	
			$I_F = 5$ A	$I_F = 10$ A
SBCT1020	20	20	< 0.55	< 0.63
SBCT1030	30	30	< 0.55	< 0.63
SBCT1040	40	40	< 0.55	< 0.63
SBCT1045	45	45	< 0.55	< 0.63
SBCT1050	50	50	< 0.70	< 0.79
SBCT1060	60	60	< 0.70	< 0.79
SBCT1090	90	90	< 0.85	< 0.92
SBCT10100	100	100	< 0.85	< 0.92

Max. average forward rectified current, R-load Dauergrenzstrom in Einwegschaltung mit R-Last	$T_C = 100^\circ\text{C}$	$I_{FAV}$	5 A <sup>2)</sup> 10 A <sup>3)</sup>	
Repetitive peak forward current Periodischer Spitzenstrom	$f > 15$ Hz	$I_{FRM}$	20 A <sup>2)</sup>	
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwellen	SBCT1020... SBCT1060	$T_A = 25^\circ\text{C}$	$I_{FSM}$	100/120 A <sup>2)</sup>
Peak forward surge current, 50/60 Hz half sine-wave Stoßstrom für eine 50/60 Hz Sinus-Halbwellen	SBCT1080... SBCT10100	$T_A = 25^\circ\text{C}$	$I_{FSM}$	100/120 A <sup>2)</sup>
Rating for fusing, $t < 10$ ms Grenzlastintegral, $t < 10$ ms	$T_A = 25^\circ\text{C}$	$i^2t$	50 A <sup>2</sup> s <sup>2)</sup>	
Junction temperature – Sperrschichttemperatur	$T_j$		-50...+150°C	
Storage temperature – Lagerungstemperatur	$T_s$		-50...+175°C	

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

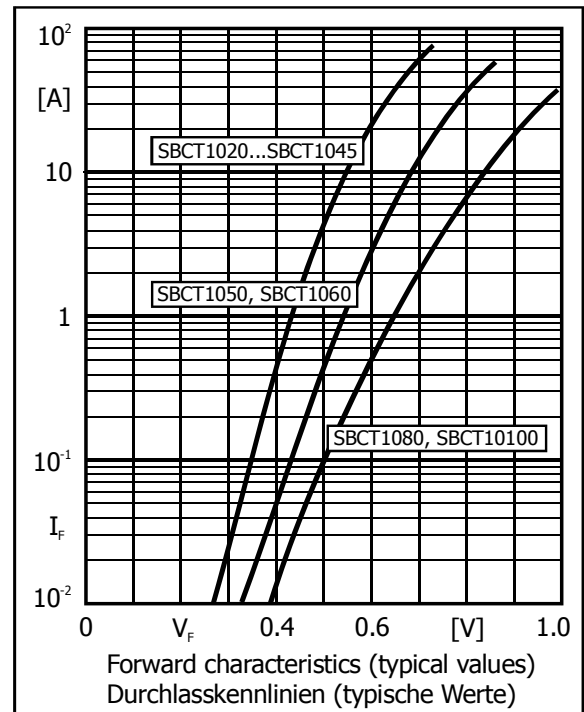
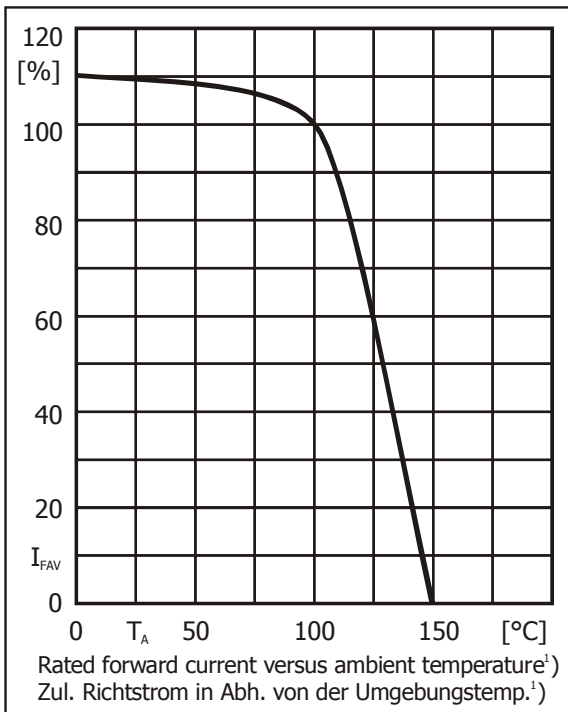
2 Per diode – Pro Diode

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

**Characteristics**

**Kenwerte**

Leakage current Sperrstrom	$T_j = 25^\circ\text{C}$ $T_j = 100^\circ\text{C}$	$V_R = V_{RRM}$	$I_R$	< 300 $\mu\text{A}$ < 7 mA
Thermal resistance junction to case Wärmewiderstand Sperrschicht - Gehäuse			$R_{thC}$	< 3.0 K/W <sup>1)</sup>



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