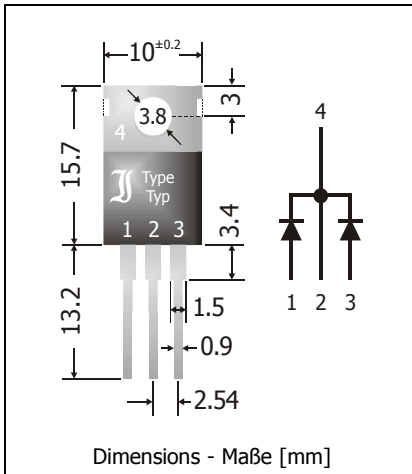


SBCT1020 ... SBCT10100

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] ^{1) 2)}	
			$I_F = 5 A$	$I_F = 10 A$
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 Einwegschtung mit R-Last

 $T_C = 100^\circ C$ I_{FAV} 5 A ²⁾ I_{FAV} 10 A ³⁾

Repetitive peak forward current
Periodischer Spitzenstrom

 $f > 15 \text{ Hz}$ I_{FRM} 20 A ²⁾

Peak forward surge current, 50/60 Hz half sine-wave
Stoßstrom für eine 50/60 Hz Sinus-Halbwell

SBCT1020...
SBCT1060 $T_A = 25^\circ C$

 I_{FSM} 100/120 A ²⁾

Peak forward surge current, 50/60 Hz half sine-wave
Stoßstrom für eine 50/60 Hz Sinus-Halbwell

SBCT1080...
SBCT10100 $T_A = 25^\circ C$

 I_{FSM} 100/120 A ²⁾

Rating for fusing, $t < 10 \text{ ms}$
Grenzlastintegral, $t < 10 \text{ ms}$

 $T_A = 25^\circ C$ $i^2 t$ 50 A²s ²⁾

Junction temperature – Sperrschichttemperatur
Storage temperature – Lagerungstemperatur

 T_j

-50...+150°C

 T_s

-50...+175°C

1 $T_j = 25^\circ C$

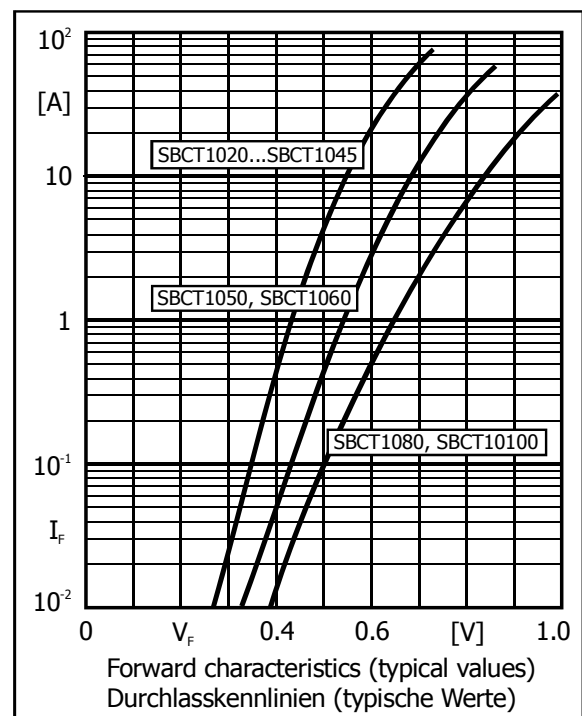
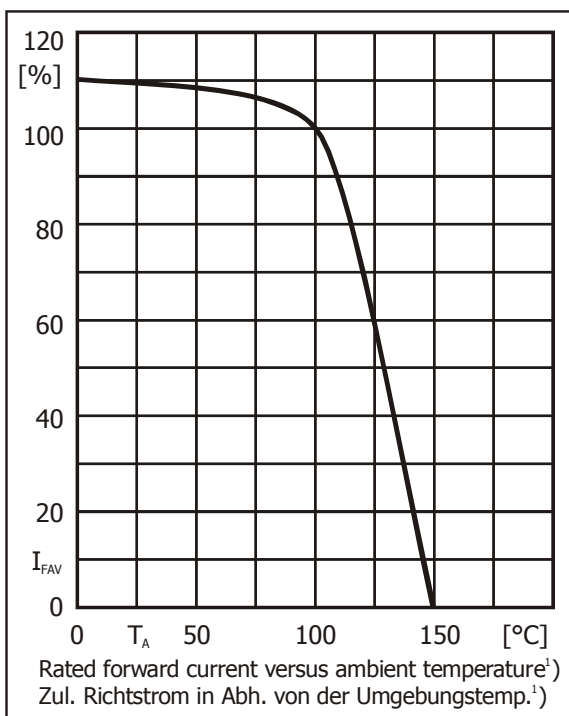
2 Per diode – Pro Diode

3 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	$< 300 \mu\text{A}$ $< 7 \text{ mA}$
Thermal resistance junction to case Wärmewiderstand Sperrschicht - Gehäuse				$R_{thC} < 3.0 \text{ K/W}^1)$



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