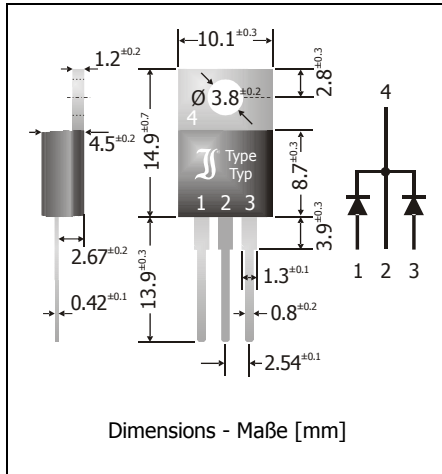


SBCT1020 ... SBCT10100
Schottky Barrier Rectifier Diodes – Common Cathode
Schottky-Barrier-Gleichrichterdioden – Gemeinsame Kathode

Version 2013-05-07



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
Grenzwerte

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 Einwegschaltung mit R-Last	$T_C = 100^\circ\text{C}$	I_{FAV} I_{FAV}	5 A ¹⁾ 10 A ²⁾
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-Halbwellen	$T_A = 25^\circ\text{C}$	I_{FSM}	100/120 A ²⁾
Rating for fusing, $t < 10 \text{ ms}$ Grenzlastintegral, $t < 10 \text{ ms}$	$T_A = 25^\circ\text{C}$	i^2t	50 A ² s ²⁾
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur	T_j T_s		-50...+150°C -50...+175°C

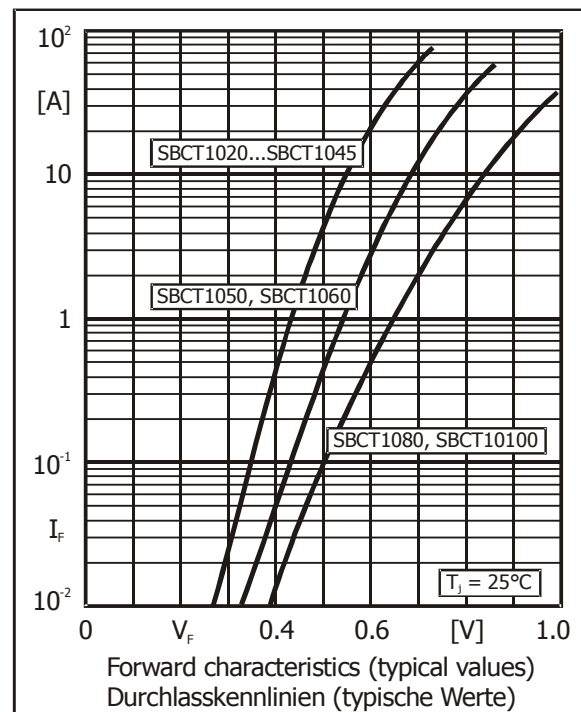
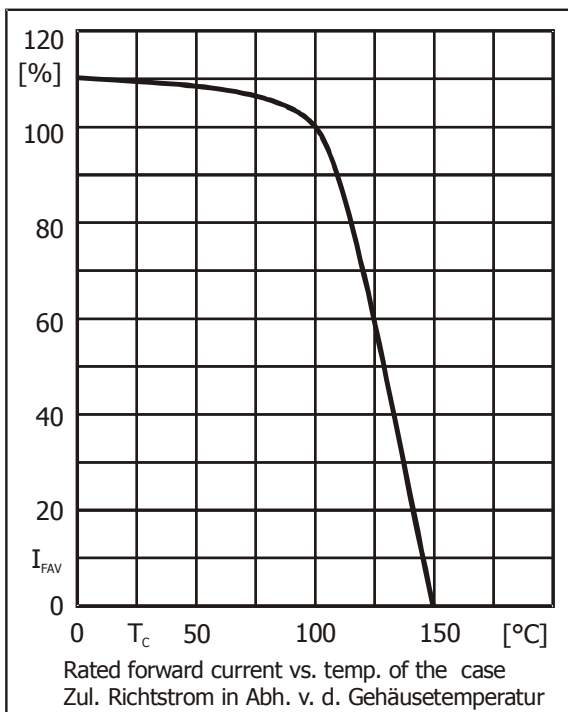
1 $T_j = 25^\circ\text{C}$

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	$< 300 \mu\text{A}^1)$ $< 7 \text{ mA}^1)$
Thermal resistance junction to case Wärmewiderstand Sperrschicht - Gehäuse			R_{thc}	$3.0 \text{ K/W}^2)$



1 Per diode – Pro Diode

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