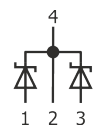
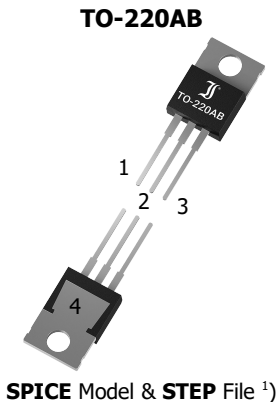


SBCT3040 ... SBCT30200 Schottky Barrier Rectifier Diodes Schottky-Gleichrichterdioden	$I_{FAV@125^{\circ}C} = 2 \times 15 \text{ A}$ $V_{F@15A} < 0.50 \dots 0.85 \text{ V}$ $T_{jmax} = 150^{\circ}C$	$V_{RRM} = 45 \dots 200 \text{ V}$ $I_{FSM} = 220/250 \text{ A}$ $V_{F@5A} \sim 0.43 \dots 0.75 \text{ V}^{5)}$
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Version 2021-12-01



Marking
Type (no suffix)/Typ (kein Suffix)
HS Code 85411000

Typical Applications

Output Rectification in DC/DC Converters, Power Supplies, Chargers
Polarity Protection, OR-ing diodes
Commercial grade
Suffix -Q: AEC-Q101 compliant ¹⁾
Suffix -AQ: in AEC-Q101 qualification ¹⁾

Features

Dual diodes with common cathode
Low forward voltage drop
Low reverse leakage
Compliant to RoHS (exemp. 7a)
REACH, Conflict Minerals ¹⁾

Mechanical Data ¹⁾

Packed in tubes/cardboards
Weight approx.
Case material
Solder & assembly conditions



50/1000
2.2 g
UL 94V-0
260°C/10s
MSL N/A

Typische Anwendungen

Ausgangsgleichrichtung in DC/DC-Wandlern, Netzteilen, Ladegeräten
Verpolschutz, ODER-Verknüpfungen
Standardausführung
Suffix -Q: AEC-Q101 konform ¹⁾
Suffix -AQ: in AEC-Q101 Qualifikation ¹⁾

Besonderheiten

Doppeldiode mit gemeinsamer Kathode
Niedrige Fluss-Spannung
Niedriger Sperrstrom
Konform zu RoHS (Ausn. 7a)
REACH, Konfliktminerale ¹⁾

Mechanische Daten ¹⁾

Verpackt in Stangen/Kartons
Gewicht ca.
Gehäusematerial
Löt- und Einbaubedingungen

Maximum ratings ²⁾

Grenzwerte ²⁾

Type Typ	DC blocking voltage Sperrgleichspannung $V_{DC} [V]^{3)}$	Repetitive peak reverse voltage Periodische Spitzensperrspannung $V_{RRM} [V]$	Surge peak reverse voltage Stoßspitzensperrspannung $V_{RSM} [V]$
SBCT3045-3G	–	45	45
SBCT3060-3G	–	60	60
SBCT30100	–	100	100
SBCT30150 /-AO	120	150	150
SBCT30200 /-AO	160	200	200

Max. average forward rectified current Dauergrenzstrom in Einwegschaltung	$T_C = 125^{\circ}C^{4)}$	I_{FAV}	15 A ⁵⁾ 30 A ⁶⁾
	$T_C = 110^{\circ}C^{4)}$	I_{FAV}	20 A ⁵⁾ 40 A ⁶⁾
Repetitive peak forw. current – Period. Spitzenstrom	$f > 15 \text{ Hz}$	$T_C = 100^{\circ}C^{4)}$	I_{FRM} 44 A ⁵⁾
Peak forward surge current (half sine-wave) Stoßstrom in Fluss-Richtung (Sinus-Halbwellen)	50 Hz (10 ms)	I_{FSM}	220 A ⁵⁾ 250 A ⁵⁾
	60 Hz (8.3 ms)		
Rating for fusing – Grenzlastintegral	$t < 10 \text{ ms}$	i^2t	240 A ² s ⁵⁾
Reverse surge current – Stromimpuls in Sperr-Richtung	$t_p = 2 \mu s$	I_{RSM}	2 A
Junction temperature – Sperrschichttemperatur Storage temperature – Lagerungstemperatur		T_j	-50...+150°C
		T_s	-50...+175°C

1 Please note the [detailed information on our website](#) or at the beginning of the data book
Bitte beachten Sie die [detaillierten Hinweise auf unserer Internetseite](#) bzw. am Anfang des Datenbuches
2 $T_A = 25^{\circ}C$ unless otherwise specified – $T_A = 25^{\circ}C$ wenn nicht anders angegeben
3 Defined for -AQ parts only, $T_j = 125^{\circ}C$ – Nur definiert für -AQ Bauteile, $T_j = 125^{\circ}C$
4 Measured at heat flange – Gemessen an der Kühlfahne
5 Per diode – Pro Diode
6 Per device (parallel operation) – Pro Bauteil (Parallelbetrieb)

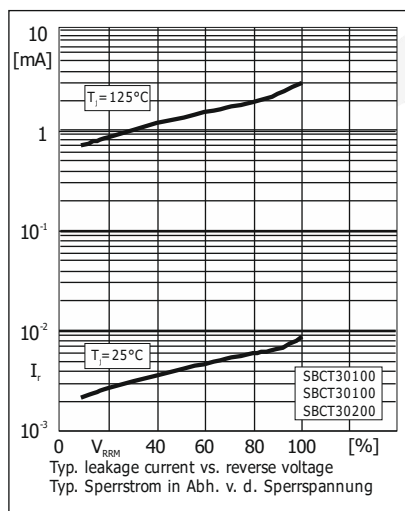
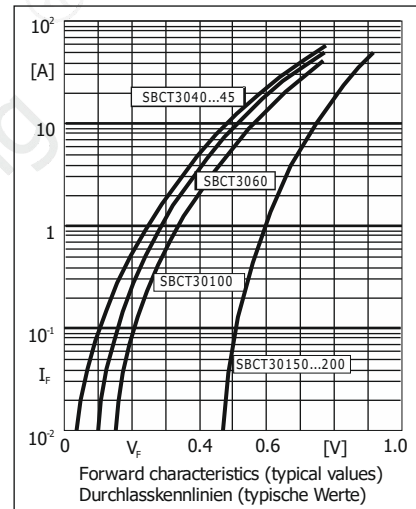
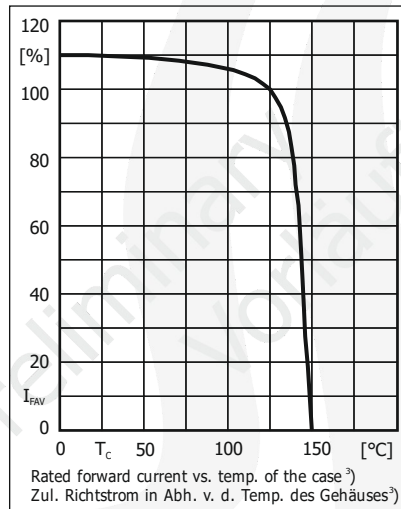
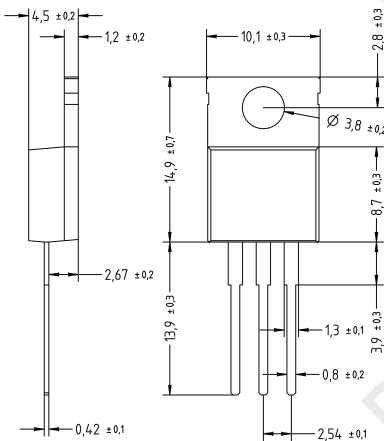
Characteristics

Kennwerte

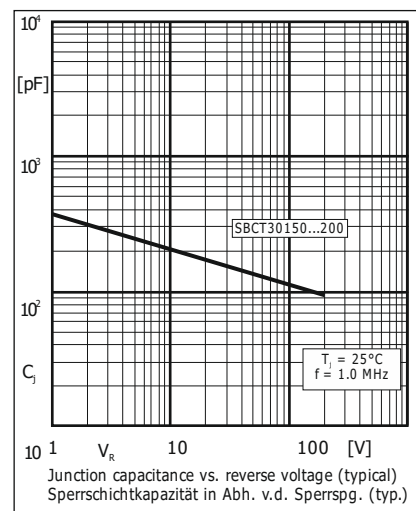
Type Typ	Forward voltage Durchlass-Spannung			Forward voltage Durchlass-Spannung		
	V_F [V] ²⁾	@ I_F [A]	@ T_j	V_F [V] ¹⁾	@ I_F [A]	@ T_j
SBCT3045-3G	typ. 0.43			< 0.50		
SBCT3060-3G	tdb	5	25°C	< tdb	15	25°C
SBCT30100	typ. 0.46			< 0.75		
SBCT30150, SBCT30200/-AQ	typ. 0.75			< 0.85		

Leakage current Sperrstrom	$T_j = 25^\circ\text{C}$	SBCT3045-3G...	$V_R = V_{RRM}$	I_R	< 100 μA ¹⁾
	$T_j = 125^\circ\text{C}$	SBCT3060-3G			typ. 10 mA ¹⁾
	$T_j = 25^\circ\text{C}$	SBCT30100...	$V_R = V_{RRM}$	I_R	< 10 μA ¹⁾
	$T_j = 125^\circ\text{C}$	SBCT30200/-AQ			typ. 3 mA ¹⁾
Typical junction capacitance – Typische Sperrschichtkapazität			$V_R = 4\text{ V}$	C_j	260 pF ¹⁾
Typical thermal resistance junction to case – Typ. Wärmewiderstand Sperrschicht – Gehäuse				R_{thc}	1.5 K/W ^{2,3)}

Dimensions – Maße [mm]



Disclaimer: See data book page 2 or [website](#)
Haftungsausschluss: Siehe Datenbuch Seite 2 oder [Internet](#)



1 Per diode – Pro Diode
2 Per device (parallel operation) – Pro Bauteil (Parallelbetrieb)
3 Measured at heat flange – Gemessen an der Kühlfahne