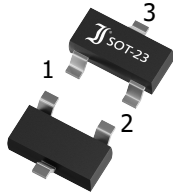


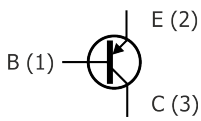
BC807 ... BC808 SMD General Purpose PNP Transistors SMD Universal-PNP-Transistoren	I_C = -800 mA h_{FE} ~ 160/250/400 T_{jmax} = 150°C	V_{CES} = -30 ...-50 V P_{tot} = 310 mW
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Version 2021-12-10

SOT-23
TO-236



SPICE Model & STEP File ¹⁾



Marking Code
See below | Siehe unten

HS Code 85412100

Typical Applications

- Signal processing
- Switching
- Amplification
- Commercial grade
- Suffix -Q: AEC-Q101 compliant ¹⁾
- Suffix -AQ: in AEC-Q101 qualification ¹⁾

Features

- General Purpose
- Three current gain groups
- Compliant to RoHS (w/o exemp.), REACH, Conflict Minerals ¹⁾

Mechanical Data ¹⁾

- Taped and reeled
- Weight approx.
- Case material
- Solder & assembly conditions



- 3000 / 7"
- 0.01 g
- UL 94V-0
- 260°C/10s
- MSL = 1

Typische Anwendungen

- Signalverarbeitung
- Schalten
- Verstärken
- Standardausführung ¹⁾
- Suffix -Q: AEC-Q101 konform ¹⁾
- Suffix -AQ: in AEC-Q101 Qualifizierung ¹⁾

Besonderheiten

- Universell anwendbar
- Drei Stromverstärkungsklassen
- Konform zu RoHS (ohne Ausn.), REACH, Konfliktminerale ¹⁾

Mechanische Daten ¹⁾

- Gegurtet auf Rolle
- Gewicht ca.
- Gehäusematerial
- Löt- und Einbaubedingungen

Type & Marking Code		Complementary NPN transistors Komplementäre NPN-Transistoren
BC807-16 = 5A or 5CR	BC808-16 = 5E or 5CR	BC817 BC818
BC807-16/-AQ = 5CR	BC808-25 = 5F or 5CS	
BC807-25/-Q = 5B or 5CS	BC808-40 = 5G or 5CT	
BC807-25-AQ = 5CS		
BC807-40/-Q = 5C or 5CT		
BC807-40-AQ = 5CT		

Maximum ratings ²⁾

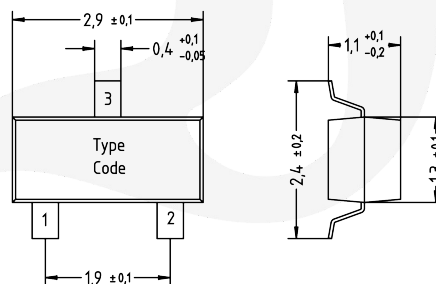
Grenzwerte ²⁾

			BC807	BC808
Collector-Emitter-voltage – Kollektor-Emitter-Spannung	E-B short	- V _{CES}	50 V	30 V
Collector-Emitter-voltage – Kollektor-Emitter-Spannung	B open	- V _{CEO}	45 V	25 V
Emitter-Base-voltage – Emitter-Basis-Spannung	C open	- V _{EBO}	5 V	
Power dissipation – Verlustleistung		P _{tot}	310 mW ³⁾	
Collector current – Kollektorstrom	DC	- I _C	800 mA	
Peak Collector current – Kollektor-Spitzenstrom		- I _{CM}	1 A	
Peak Base current – Basis-Spitzenstrom		- I _{BM}	200 mA	
Junction temperature – Sperrschichttemperatur		T _j	-55...+150°C	
Storage temperature – Lagerungstemperatur		T _s	-55...+150°C	

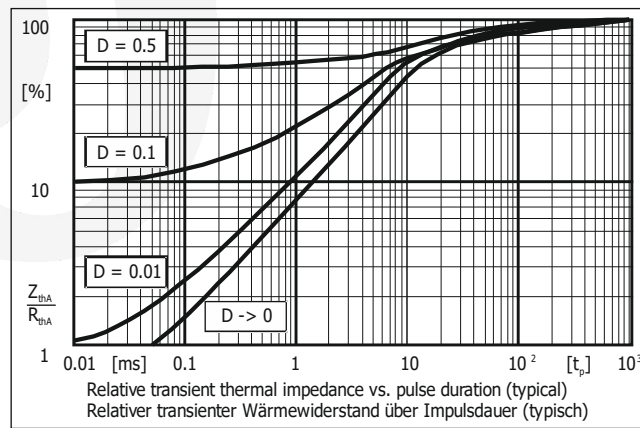
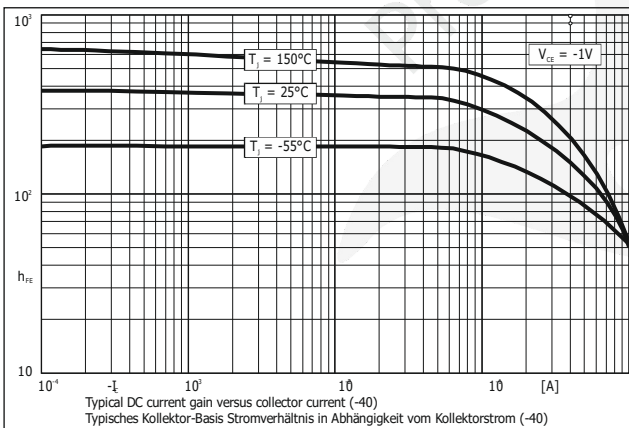
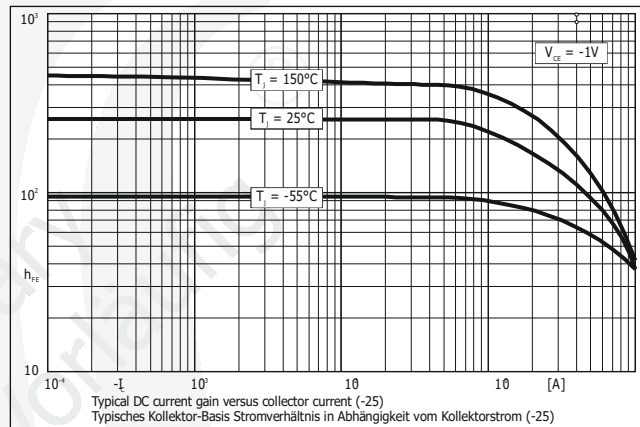
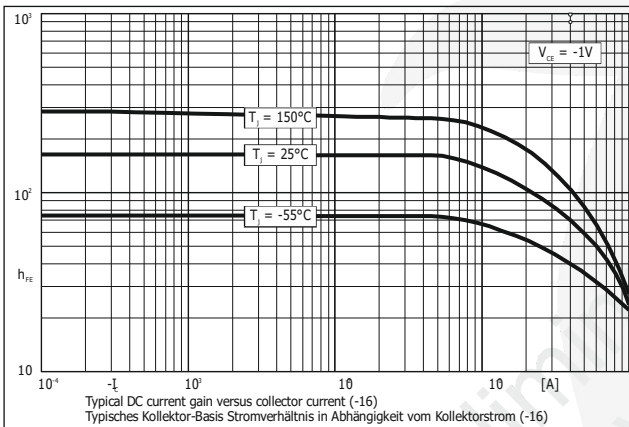
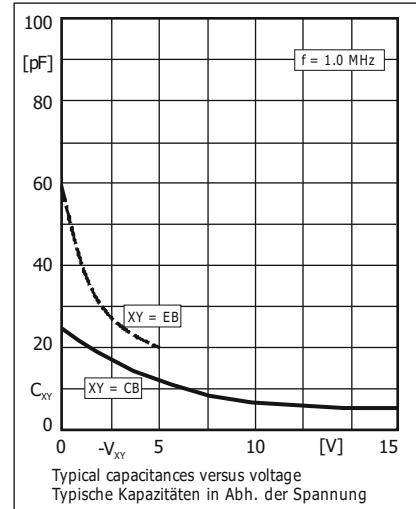
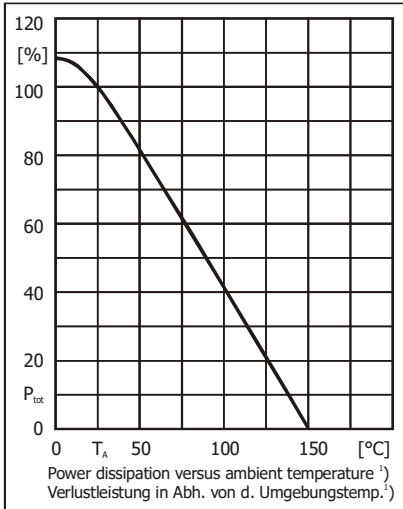
1 Please note the [detailed information on our website](#) or at the beginning of the data book
 Bitte beachten Sie die [detaillierten Hinweise auf unserer Internetseite](#) bzw. am Anfang des Datenbuches
 2 T_A = 25°C, unless otherwise specified – T_A = 25°C, wenn nicht anders angegeben
 3 Mounted on PCB with 3 mm² copper pad per terminal – Montage auf Leiterplatte mit 3 mm² Lötpad je Anschluss

Characteristics
Kennwerte

		$T_j = 25^\circ\text{C}$	Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ¹⁾					
- $V_{CE} = 1\text{ V}$, - $I_C = 100\text{ mA}$	Group -16	h_{FE}	100	–	250
	Group -25		160	–	400
	Group -40		250	–	630
- $V_{CE} = 1\text{ V}$, - $I_C = 500\text{ mA}$		h_{FE}	40	–	–
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. ²⁾					
- $I_C = 500\text{ mA}$, - $I_B = 50\text{ mA}$		- V_{CEsat}	–	–	0.7 V
Base-Emitter saturation voltage – Basis-Emitter-Sättigungsspannung ²⁾					
- $I_C = 500\text{ mA}$, - $I_B = 50\text{ mA}$		- V_{BEsat}	–	–	1.3 V
Base-Emitter-voltage – Basis-Emitter-Spannung ²⁾					
- $V_{CE} = 1\text{ V}$, - $I_C = 500\text{ mA}$		- V_{BE}	–	–	1.2 V
Collector-Base cutoff current – Kollektor-Basis-Reststrom					
- $V_{CB} = 20\text{ V}$, (E open) - $V_{CB} = 20\text{ V}$, $T_j = 125^\circ\text{C}$, (E open)		- I_{CB0}	–	–	100 nA 5 μA
			–	–	
Emitter-Base cutoff current – Emitter-Basis-Reststrom					
- $V_{EB} = 4\text{ V}$, (C open)		- I_{EB0}	–	–	100 nA
Gain-Bandwidth Product – Transitfrequenz					
- $V_{CE} = 5\text{ V}$, - $I_C = 10\text{ mA}$, $f = 50\text{ MHz}$		f_T	–	100 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität					
- $V_{CB} = 10\text{ V}$, - $I_E = I_C = 0$, $f = 1\text{ MHz}$		C_{CBO}	–	12 pF	–
Typical thermal resistance junction to ambient Typischer Wärmewiderstand Sperrschicht – Umgebung		R_{thA}	420 K/W ²⁾		

Dimensions - Maße [mm]


1 Tested with pulses $t_p = 300\ \mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300\ \mu\text{s}$, Schaltverhältnis $\leq 2\%$
 2 Mounted on PCB with 3 mm² copper pad per terminal – Montage auf Leiterplatte mit 3 mm² Löt-pad je Anschluss



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