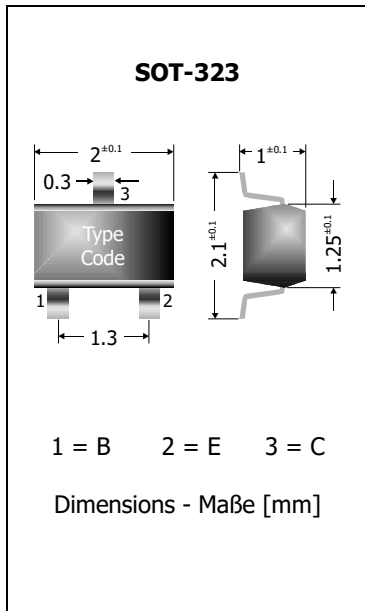


| | | |
|---|--|--|
| BC807W ... BC808W SMD General Purpose PNP Transistors SMD Universal-PNP-Transistoren | I_C = -500 mA h_{FE} ~ 160/250/400 T_{jmax} = 150°C | V_{CES} = -30 ...-50 V P_{tot} = 200 mW |
|---|--|--|

Version 2018-09-07



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, 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
Suffix -Q: AEC-Q101 konform ¹⁾
Suffix -AQ: in AEC-Q101 Qualifikation ¹⁾

Besonderheiten

Universell anwendbar
Drei Stromverstärkungsklassen
Konform zu RoHS, REACH,
Konfliktminerale ¹⁾

Mechanische Daten ¹⁾

Gegurtet auf Rolle
Gewicht ca.
Gehäusematerial
Löt- und Einbaubedingungen

| Type Code | | Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren |
|---|---|--|
| BC807-16W = 5A or 5CR BC807-25W = 5B or 5CS BC807-40W = 5C or 5CT | BC808-16W = 5E or 5CR BC808-25W = 5F or 5CS BC808-40W = 5G or 5CT | BC817W, BC818W |

Maximum ratings ²⁾

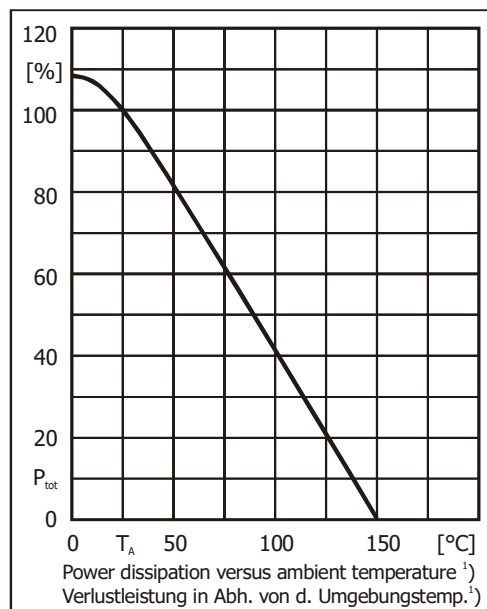
Grenzwerte ²⁾

| | | | BC807 | BC808 |
|--|-----------|--------------------|----------------------|-------|
| Collector-Emitter-volt. – Kollektor-Emitter-Spannung | E-B short | - V _{CES} | 50 V | 30 V |
| Collector-Emitter-volt. – 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} | 200 mW ³⁾ | |
| Collector current – Kollektorstrom (dc) | | - I _C | 500 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 P.C. board with 3 mm² copper pads at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem 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 | – | 600 |
| - $V_{CE} = 1\text{ V}$, - $I_C = 500\text{ mA}$ | | 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-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_{CBO} | – | – | 100 nA 5 μA |
| | | | – | – | |
| Emitter-Base cutoff current – Emitter-Basis-Reststrom | | | | | |
| - $V_{EB} = 4\text{ V}$, (C open) | | - I_{EBO} | – | – | 100 nA |
| Gain-Bandwidth Product – Transitfrequenz | | | | | |
| - $V_{CE} = 5\text{ V}$, - $I_C = 10\text{ mA}$, $f = 50\text{ MHz}$ | | f_T | 80 MHz | – | – |
| Collector-Base Capacitance – Kollektor-Basis-Kapazität | | | | | |
| - $V_{CB} = 10\text{ V}$, - $I_E = I_E = 0$, $f = 1\text{ MHz}$ | | C_{CBO} | – | – | 12 pF |
| Thermal resistance junction to ambient Wärmewiderstand Sperrschicht – Umgebung | | R_{thA} | < 625 K/W ²⁾ | | |



Disclaimer: See data book page 2 or [website](#)

Haftungsausschluss: Siehe Datenbuch Seite 2 oder [Internet](#)

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 P.C. board with 3 mm² copper pad at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad) an jedem Anschluss