

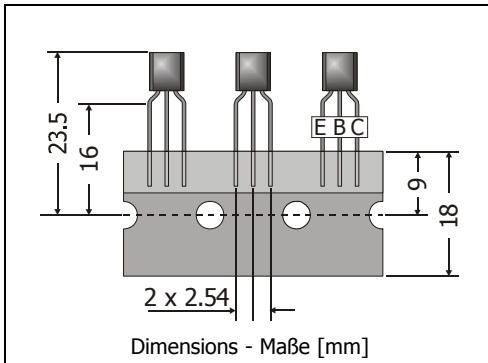
BCX38B

NPN

Si-Epitaxial Planar Darlington-Transistors
Si-Epitaxial Planar Darlington-Transistoren

NPN

Version 2006-07-24


 Power dissipation
 Verlustleistung

625 mW

 Plastic case
 Kunststoffgehäuse
TO-92
(10D3)

Weight approx. – Gewicht ca.

0.18 g

 Plastic material has UL classification 94V-0
 Gehäusematerial UL94V-0 klassifiziert

 Standard packaging taped in ammo pack
 Standard Lieferform getupet in Ammo-Pack
Maximum ratings ($T_A = 25^\circ\text{C}$)Grenzwerte ($T_A = 25^\circ\text{C}$)

| | | | BCX38B |
|--|--------|-----------|----------------------|
| Collector-Emitter-volt. – Kollektor-Emitter-Spannung | B open | V_{CEO} | 60 V |
| Collector-Base-voltage – Kollektor-Basis-Spannung | E open | V_{CBO} | 80 V |
| Emitter-Base-voltage – Emitter-Basis-Spannung | C open | V_{EBO} | 10 V |
| Power dissipation – Verlustleistung | | P_{tot} | 625 mW ¹⁾ |
| Collector current – Kollektorstrom (dc) | | I_C | 800 mA |
| Peak Collector current – Kollektor-Spitzenstrom | | I_{CM} | 2 A |
| Junction temperature – Sperrschichttemperatur | | T_j | -55...+150°C |
| Storage temperature – Lagerungstemperatur | | T_S | -55...+150°C |

Characteristics ($T_j = 25^\circ\text{C}$)Kennwerte ($T_j = 25^\circ\text{C}$)

| | | Min. | Typ. | Max. |
|---|-------------|------|------|--------|
| DC current gain – Kollektor-Basis-Stromverhältnis ²⁾ | | | | |
| $I_C = 100\text{ mA}, V_{CE} = 5\text{ V}$ | h_{FE} | 2000 | – | – |
| $I_C = 500\text{ mA}, V_{CE} = 5\text{ V}$ | h_{FE} | 4000 | – | – |
| Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. ²⁾ | | | | |
| $I_C = 800\text{ mA}, I_B = 8\text{ mA}$ | V_{CEsat} | – | – | 1.25 V |
| Base-Emitter voltage – Basis-Emitter-Spannung ²⁾ | | | | |
| $I_C = 800\text{ mA}, V_{CE} = 5\text{ V}$ | V_{BE} | – | – | 1.8 V |
| Collector-Base cutoff current – Kollektor-Basis-Reststrom | | | | |
| $V_{CB} = 60\text{ V}, (E\text{ open})$ | I_{CBO} | – | – | 100 nA |
| Emitter-Base cutoff current – Emitter-Basis-Reststrom | | | | |
| $V_{EB} = 8\text{ V}, (C\text{ open})$ | I_{EBO} | – | – | 100 nA |

1 Valid, if leads are kept at ambient temperature at a distance of 2 mm from case

Gültig wenn die Anschlussdrähte in 2 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

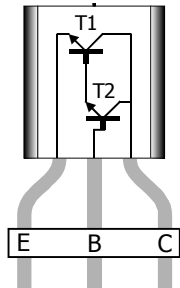
2 Tested with pulses $t_p = 300\ \mu\text{s}$, duty cycle $\leq 2\%$ – Gemessen mit Impulsen $t_p = 300\ \mu\text{s}$, Schaltverhältnis $\leq 2\%$

Characteristics (T_j = 25°C)

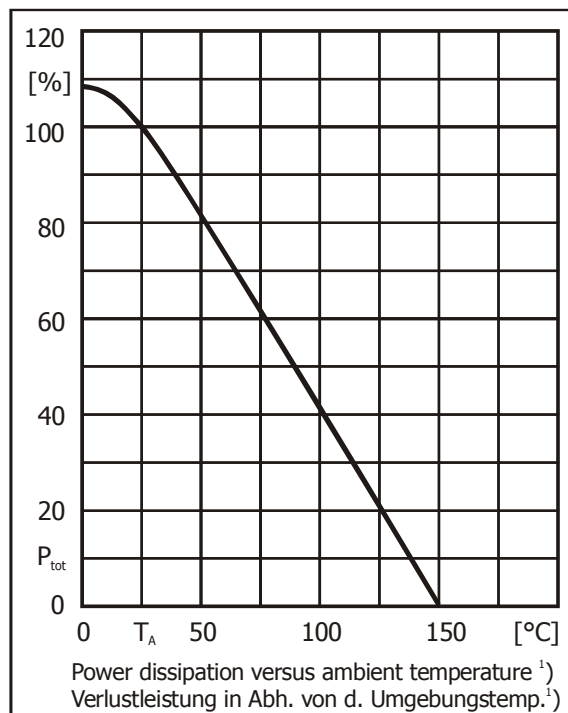
Kennwerte (T_j = 25°C)

| | | |
|---|------------------|-------------------------|
| Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft | R _{thA} | < 200 K/W ¹⁾ |
|---|------------------|-------------------------|

Pinning – Anschlußbelegung



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Gültig wenn die Anschlussdrähte in 2 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden