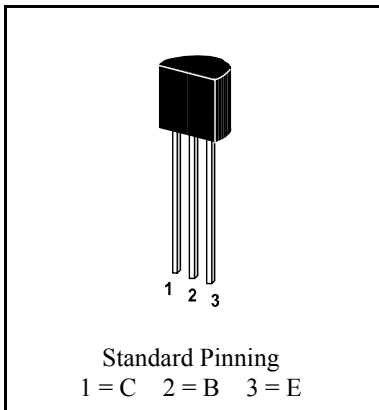


PNP

Si-Epitaxial Planar Transistors

PNP



|   |                 |
|---|-----------------|
| Power dissipation – Verlustleistung   | 625 mW          |
| Plastic case<br>Kunststoffgehäuse   | TO-92<br>(10D3) |
| Weight approx. – Gewicht ca.  | 0.18 g          |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                 |
| Standard packaging taped in ammo pack<br>Standard Lieferform gegurtet in Ammo-Pack    |                 |

Maximum ratings ( $T_A = 25^\circ\text{C}$ )Grenzwerte ( $T_A = 25^\circ\text{C}$ )

|   |           |            | BC 327               | BC 328 |
|---|-----------|------------|----------------------|--------|
| Collector-Emitter-voltage                   | B open    | $-V_{CE0}$ | 45 V                 | 25 V   |
| Collector-Emitter-voltage                   | B shorted | $-V_{CES}$ | 50 V                 | 30 V   |
| Emitter-Base-voltage                        | C open    | $-V_{EB0}$ | 5 V                  |        |
| Power dissipation – Verlustleistung         |           | $P_{tot}$  | 625 mW <sup>1)</sup> |        |
| Collector current – Kollektorstrom (DC)     |           | $-I_C$     | 800 mA               |        |
| Peak Coll. current – Kollektor-Spitzenstrom |           | $-I_{CM}$  | 1 A                  |        |
| Base current – Basisstrom                   |           | $-I_B$     | 100 mA               |        |
| Junction temp. – Sperrschichttemperatur     |           | $T_j$      | 150°C                |        |
| Storage temperature – Lagerungstemperatur   |           | $T_S$      | - 65...+ 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 |           |          |      |      |      |
| $-V_{CE} = 1\text{ V}, -I_C = 100\text{ mA}$      | Group -16 | $h_{FE}$ | 100  | 160  | 250  |
|   | Group -25 | $h_{FE}$ | 160  | 250  | 400  |
|   | Group -40 | $h_{FE}$ | 250  | 400  | 630  |
| $-V_{CE} = 1\text{ V}, -I_C = 300\text{ mA}$      | Group -16 | $h_{FE}$ | 60   | 130  | –    |
|   | Group -25 | $h_{FE}$ | 100  | 200  | –    |
|   | Group -40 | $h_{FE}$ | 170  | 320  | –    |

<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 2 mm from case

Gültig, wenn die Anschlußdrähte in 2 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden

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

|   |        | Min.            | Typ.            | Max.                  |                  |
|---|--------|-----------------|-----------------|-----------------------|------------------|
| Collector-Emitter cutoff current – Kollektorreststrom                                       |        |                 |                 |                       |                  |
| - $V_{CE} = 45\text{ V}$  | BC 327 | - $I_{CES}$     | –               | 2 nA                  | 100 nA           |
| - $V_{CE} = 25\text{ V}$  | BC 328 | - $I_{CES}$     | –               | 2 nA                  | 100 nA           |
| - $V_{CE} = 45\text{ V}, T_j = 125^\circ\text{C}$   | BC 327 | - $I_{CES}$     | –               | –                     | 10 $\mu\text{A}$ |
| - $V_{CE} = 25\text{ V}, T_j = 125^\circ\text{C}$   | BC 328 | - $I_{CES}$     | –               | –                     | 10 $\mu\text{A}$ |
| Collector-Emitter breakdown voltage<br>Collector-Emitter Durchbruchspannung                 |        |                 |                 |                       |                  |
| - $I_C = 10\text{ mA}$  | BC 327 | - $V_{(BR)CES}$ | 20 V            | –                     | –                |
|   | BC 328 | - $V_{(BR)CES}$ | 45 V            | –                     | –                |
| - $I_C = 0.1\text{ mA}$   | BC 327 | - $V_{(BR)CES}$ | 30 V            | –                     | –                |
|   | BC 328 | - $V_{(BR)CES}$ | 50 V            | –                     | –                |
| Emitter-Base breakdown voltage<br>Emitter-Basis-Durchbruchspannung                          |        |                 |                 |                       |                  |
| - $I_E = 0.1\text{ mA}$   |        | - $V_{(BR)EB0}$ | 5 V             | –                     | –                |
| Collector saturation volt. – Kollektor-Sättigungsspannung                                   |        |                 |                 |                       |                  |
| - $I_C = 500\text{ mA}, - I_B = 50\text{ mA}$   |        | - $V_{CEsat}$   | –               | –                     | 0.7 V            |
| Base-Emitter voltage – Basis-Emitter-Spannung   |        |                 |                 |                       |                  |
| - $V_{CE} = 1\text{ V}, - I_C = 300\text{ mA}$  |        | - $V_{BE}$      | –               | –                     | 1.2 V            |
| 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                                      |        |                 |                 |                       |                  |
| - $V_{CB} = 10\text{ V}, I_E = i_e = 0, f = 1\text{ MHz}$                                   |        | $C_{CB0}$       | –               | 12 pF                 | –                |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft |        |                 | $R_{thA}$       | 200 K/W <sup>1)</sup> |                  |
| Recommended complementary NPN transistors<br>Empfohlene komplementäre NPN-Transistoren      |        |                 | BC 337 / BC 338 |                       |                  |

|   |           |           |          |
|---|-----------|-----------|----------|
| Available current gain groups per type<br>Lieferbare Stromverstärkungsgruppen pro Typ | BC 327-16 | BC 327-25 | BC327-40 |
|   | BC 328-16 | BC 328-25 | BC328-40 |

<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 2 mm from case

Gültig, wenn die Anschlußdrähte in 2 mm Abstand von Gehäuse auf Umgebungstemperatur gehalten werden