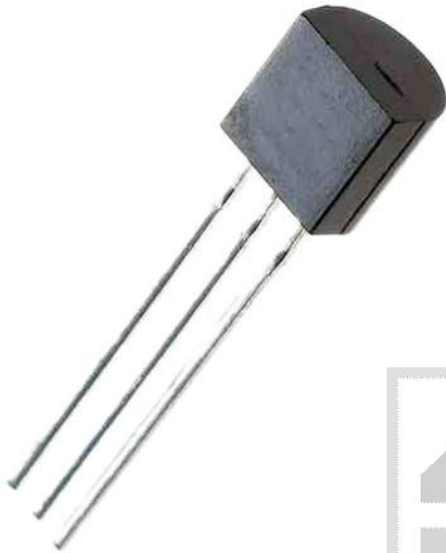




# TR BC337-40;LGE;TO92;tranzystor; NPN;0.8A;50V;0.625W;Pbf



## Dane techniczne:

Nazwa: BC337-40

Typ tranzystora: bipolarny

Kierunek przewodnictwa: NPN

Prąd kolektora: 0.8A

Napięcie kolektor-emiter: 50V

Moc: 0.625W

Obudowa: TO92

Montaż: przewlekany (THT)

Producent: LGE

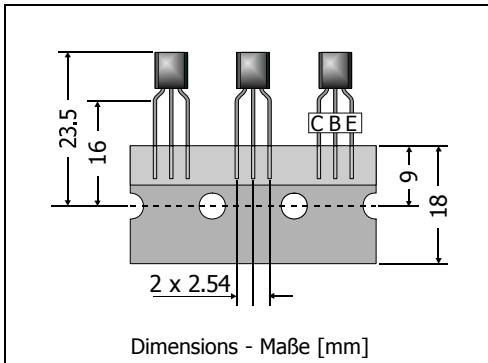
## BC337 / BC338

NPN

General Purpose Si-Epitaxial Planar Transistors  
Si-Epitaxial Planar-Transistoren für universellen Einsatz

NPN

Version 2006-05-30



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

|  |           |           | BC337                | BC338 |
|--|-----------|-----------|----------------------|-------|
| 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                  |           | $P_{tot}$ | 625 mW <sup>1)</sup> |       |
| Collector current – Kollektorstrom (dc)              |           | $I_C$     | 800 mA               |       |
| Peak Collector current – Kollektor-Spitzenstrom      |           | $I_{CM}$  | 1 A                  |       |
| Base current – Basisstrom                            |           | $I_B$     | 100 mA               |       |
| 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 <sup>2)</sup>                       |           |             |      |      |       |
| $V_{CE} = 1\text{ V}, I_C = 100\text{ mA}$  | 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  | –     |
| Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg. <sup>2)</sup> |           |             |      |      |       |
| $I_C = 500\text{ mA}, I_B = 50\text{ mA}$   |           | $V_{CEsat}$ | –    | –    | 0.7 V |

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

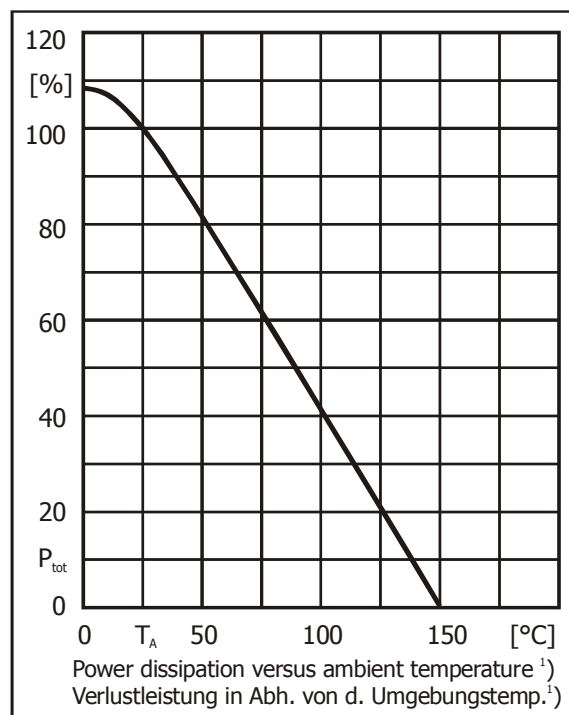
Gültig wenn die Anschlussdrähte in 2 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

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

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

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

|   |       |           | Min.                             | Typ.                             | Max.             |
|---|-------|-----------|----------------------------------|----------------------------------|------------------|
| Base-Emitter-voltage – Basis-Emitter-Spannung <sup>2)</sup><br>$V_{CE} = 1\text{ V}, I_C = 300\text{ mA}$         |       |           | $V_{BE}$                         | –                                | 1.2 V            |
| Collector-Emitter cutoff current – Kollektor-Emitter-Reststrom  |       |           |                                  |                                  |                  |
| $V_{CE} = 45\text{ V}, (\text{B-E short})$  | BC337 | $I_{CES}$ | –                                | 2 nA                             | 100 nA           |
| $V_{CE} = 25\text{ V}, (\text{B-E short})$  | BC338 | $I_{CES}$ | –                                | 2 nA                             | 100 nA           |
| $V_{CE} = 45\text{ V}, T_j = 125^\circ\text{C}, (\text{B-E short})$   | BC337 | $I_{CES}$ | –                                | –                                | 10 $\mu\text{A}$ |
| $V_{CE} = 25\text{ V}, T_j = 125^\circ\text{C}, (\text{B-E short})$   | BC338 | $I_{CES}$ | –                                | –                                | 10 $\mu\text{A}$ |
| Gain-Bandwidth Product – Transitfrequenz<br>$V_{CE} = 5\text{ V}, I_C = 10\text{ mA}, f = 50\text{ MHz}$          |       |           | $f_T$                            | 100 MHz                          | –                |
| Collector-Base Capacitance – Kollektor-Basis-Kapazität<br>$V_{CB} = 10\text{ V}, I_E = i_e = 0, f = 1\text{ MHz}$ |       |           | $C_{CBO}$                        | 12 pF                            | –                |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrschicht – umgebende Luft                       |       |           | $R_{thA}$                        | < 200 K/W <sup>1)</sup>          |                  |
| Recommended complementary PNP transistors<br>Empfohlene komplementäre PNP-Transistoren                            |       |           | BC327 / BC328                    |                                  |                  |
| Available current gain groups per type<br>Lieferbare Stromverstärkungsgruppen pro Typ                             |       |           | BC337-16<br>BC337-25<br>BC337-40 | BC338-16<br>BC338-25<br>BC338-40 |                  |



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

<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 vom Gehäuse auf Umgebungstemperatur gehalten werden