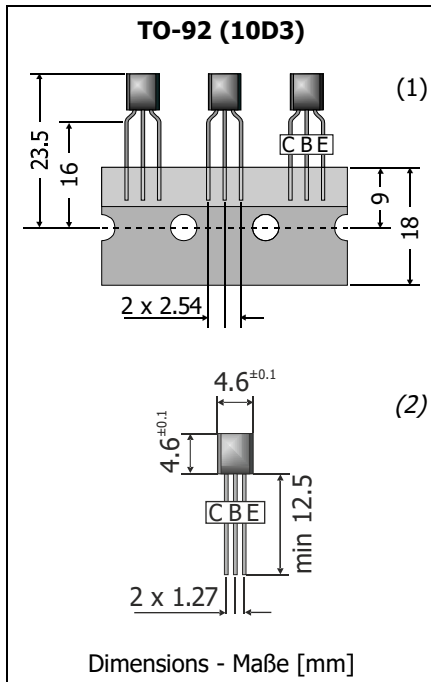


BC556 ... BC559 General Purpose PNP Transistors Universal-PNP-Transistoren	$I_C = 100 \text{ mA}$ $h_{FE} \sim 120/200/400$ $T_{jmax} = 150^\circ\text{C}$	$V_{CE0} = 30...65 \text{ V}$ $P_{tot} = 500 \text{ mW}$
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Version 2016-11-25



Typical Applications

Signal processing,
Switching, Amplification
Commercial grade ¹⁾

Features

General Purpose
Three current gain groups
Compliant to RoHS, REACH,
Conflict Minerals ¹⁾

Mechanical Data ¹⁾

(1) Taped in ammo pack 4000
(Raster 2.54)
(2) On request: in bulk 5000
(Raster 1.27, suffix "BK")
Weight approx. 0.18 g
Case material UL 94V-0
Solder & assembly conditions 260°C/10s
MSL N/A

Typische Anwendungen

Signalverarbeitung,
Schalten, Verstärken
Standardausführung ¹⁾

Besonderheiten

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

Mechanische Daten ¹⁾

(1) Gegurtet in Ammo-Pack
(Raster 2.54)
(2) Auf Anfrage: Schüttgut
(Raster 1.27, Suffix "BK")
Gewicht ca.
Gehäusematerial
Löt- und Einbaubedingungen

Current gain groups Stromverstärkungsgruppen			Recommended complementary NPN transistors Empfohlene komplementäre NPN-Transistoren
BC556A BC557A BC558A	BC556B BC557B BC558B BC559B	BC557C BC558C BC559C	BC546 ... BC549

Maximum ratings (T_A = 25°C)

Grenzwerte (T_A = 25°C)

			BC556	BC557	BC558/559
Collector-Emitter-voltage	E-B short	- V _{CES}	80 V	50 V	30 V
Collector-Emitter-voltage	B open	- V _{CEO}	65 V	45 V	30 V
Collector-Base-voltage	E open	- V _{CBO}	80 V	50 V	30 V
Emitter-Base-voltage	C open	- V _{EB0}	5 V		
Power dissipation – Verlustleistung		P _{tot}	500 mW ²⁾		
Collector current – Kollektorstrom (dc)		- I _C	100 mA		
Peak Collector current – Kollektor-Spitzenstrom		- I _{CM}	200 mA		
Peak Base current – Basis-Spitzenstrom		- I _{BM}	200 mA		
Peak Emitter current – Emitter-Spitzenstrom		I _{EM}	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 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

Characteristics (T_j = 25°C)
Kennwerte (T_j = 25°C)

		Min.	Typ.	Max.
DC current gain – Kollektor-Basis-Stromverhältnis ¹⁾				
- V _{CE} = 5 V, - I _C = 10 μA	Group A	–	90	–
	Group B	–	150	–
	Group C	–	270	–
- V _{CE} = 5 V, - I _C = 2 mA	Group A	110	–	220
	Group B	200	–	450
	Group C	420	–	800
- V _{CE} = 5 V, - I _C = 100 mA	Group A	–	120	–
	Group B	–	200	–
	Group C	–	400	–
Collector-Emitter cutoff current – Kollektor-Emitter-Reststrom				
- V _{CE} = 80 V, (B-E short)	BC556	–	0.2 nA	15 nA
- V _{CE} = 50 V, (B-E short)	BC557	–	0.2 nA	15 nA
- V _{CE} = 30 V, (B-E short)	BC558 / BC559	–	0.2 nA	15 nA
- V _{CE} = 80 V, T _j = 125°C, (B-E short)	BC556	–	–	4 μA
- V _{CE} = 50 V, T _j = 125°C, (B-E short)	BC557	–	–	4 μA
- V _{CE} = 30 V, T _j = 125°C, (B-E short)	BC558 / BC559	–	–	4 μA
Collector-Emitter saturation voltage – Kollektor-Emitter-Sättigungsspg ¹⁾				
- I _C = 10 mA, - I _B = 0.5 mA		–	80 mV	300 mV
- I _C = 100 mA, - I _B = 5 mA		–	250 mV	650 mV
Base-Emitter saturation voltage – Basis-Emitter-Sättigungsspannung ¹⁾				
- I _C = 10 mA, - I _B = 0.5 mA		–	700 mV	–
- I _C = 100 mA, - I _B = 5 mA		–	900 mV	–
Base-Emitter-voltage – Basis-Emitter-Spannung ¹⁾				
- V _{CE} = 5 V, - I _C = 2 mA		600 mV	660 mV	750 mV
- V _{CE} = 5 V, - I _C = 10 mA		–	–	820 mV
Gain-Bandwidth Product – Transitfrequenz				
- V _{CE} = 5 V, - I _C = 10 mA, f = 100 MHz		–	150 MHz	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität				
- V _{CB} = 10 V, I _E = I _C = 0, f = 1 MHz		–	3.5 pF	6 pF
Emitter-Base Capacitance – Emitter-Basis-Kapazität				
- V _{EB} = 0.5 V, I _C = I _E = 0, f = 1 MHz		–	10 pF	–
Noise figure – Rauschzahl				
- V _{CE} = 5 V, - I _C = 200 μA, R _G = 2 kΩ	BC556 ... BC558	–	2 dB	10 dB
f = 1 kHz, Δf = 200 Hz	BC559	–	1 dB	4 dB
Thermal resistance junction to ambient Wärmewiderstand Sperrschicht – Umgebung		R _{thA}	< 200 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 μs, duty cycle ≤ 2% – Gemessen mit Impulsen t_p = 300 μs, Schaltverhältnis ≤ 2%

2 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