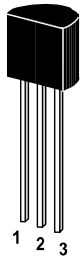


PNP

Si-Epitaxial Planar Transistors

PNP



Standard Pinning
1 = C 2 = B 3 = E

Power dissipation – Verlustleistung

500 mW

Plastic case

TO-92

Kunststoffgehäuse

(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 gegurtet in Ammo-Pack

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

			BC 556	BC 557	BC 558/559
Collector-Emitter-voltage	B open	- V_{CE0}	65 V	45 V	30 V
Collector-Base-voltage	E open	- V_{CB0}	80 V	50 V	30 V
Emitter-Base-voltage	C open	- V_{EB0}	5 V		
Power dissipation – Verlustleistung		P_{tot}	500 mW ¹⁾		
Collector current – Kollektorstrom (DC)		- I_C	100 mA		
Junction temp. – Sperrschichttemperatur		T_j	150°C		
Storage temperature – Lagerungstemperatur		T_s	- 55...+ 150°C		

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

		Group A	Group B	Group C
DC current gain – Kollektor-Basis-Stromverhältnis				
- $V_{CE} = 5\text{ V}$, - $I_C = 2\text{ mA}$	h_{FE}	110...220	200...460	420...800
h-Parameters at - $V_{CE} = 5\text{ V}$, - $I_C = 2\text{ mA}$, $f = 1\text{ kHz}$				
Small signal current gain	h_{fe}	typ. 220	typ. 330	typ. 600
Stromverstärkung				
Input impedance – Eingangsimpedanz	h_{ie}	1.6...4.5 k Ω	3.2...8.5 k Ω	6...15 k Ω
Output admittance – Ausg.-Leitwert	h_{oe}	18 < 30 μS	30 < 60 μS	60 < 110 μS
Reverse voltage transfer ratio	h_{re}	typ. 1.5 * 10 ⁻⁴	typ. 2 * 10 ⁻⁴	typ. 3 * 10 ⁻⁴
Spannungsrückwirkung				
Collector saturation voltage – Kollektor-Sättigungsspg.				
- $I_C = 100\text{ mA}$, - $I_B = 5\text{ mA}$	- V_{CEsat}	—	—	300 mV

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 von Gehäuse auf Umgebungstemperatur gehalten werden

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

		Min.	Typ.	Max.	
Base saturation voltage – Basis-Sättigungsspannung - I _C = 100 mA, - I _B = 5 mA		- V _{BEsat}	–	–	1 V
Base-Emitter voltage – Basis-Emitter-Spannung - V _{CE} = 5 V, - I _C = 2 mA		- V _{BE}	580 mV	660 mV	700 mV
Collector-Emitter cutoff current – Kollektorreststrom - V _{CE} = 60 V BC 556 - V _{CE} = 40 V BC 557 - V _{CE} = 25 V BC 558 - V _{CE} = 25 V BC 559		- I _{CE0} - I _{CE0} - I _{CE0} - I _{CE0}	– – – –	– – – –	0.1 μA 0.1 μA 0.1 μA 0.1 μA
Gain-Bandwidth Product – Transittfrequenz - V _{CE} = 5 V, - I _C = 10 mA, f = 100 MHz		f _T	150 MHz	–	–
Collector-Base Capacitance – Kollektor-Basis-Kapazität - V _{CB} = 10 V, I _E = i _e = 0, f = 1 MHz		C _{CB0}	–	–	6 pF
Emitter-Base Capacitance – Emitter-Basis-Kapazität - V _{EB} = 0.5 V, f = 1 MHz		C _{EB0}	–	9 pF	–
Noise figure – Rauschzahl - V _{CE} = 5 V, - I _C = 200 μA BC 556... R _G = 2 kΩ f = 1 kHz, BC 558 Δf = 200 Hz BC 559		F F	– –	2 dB 1 dB	10 dB 4 dB
Thermal resistance junction to ambient air Wärmewiderstand Sperrschicht – umgebende Luft		R _{thA}			200 K/W ¹⁾
Recommended complementary PNP transistors Empfohlene komplementäre PNP-Transistoren		BC 546 ... BC 549			

Available current gain groups per type Lieferbare Stromverstärkungsgruppen pro Typ	BC 556A BC 557A BC 558A	BC 556B BC 557B BC 558B BC 559B	BC 557C BC 558C BC 559C
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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 von Gehäuse auf Umgebungstemperatur gehalten werden