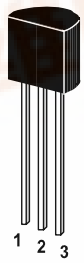
PNP **Si-Epitaxial PlanarTransistors** **PNP**



Standard Pinning
1 = C 2 = B 3 = E

Power dissipation – Verlustleistung	500 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 gegurtet in Ammo-Pack

Maximum ratings (T_A = 25˚C) **Grenzwerte (T_A = 25˚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˚C) **Kennwerte (T_j = 25˚C)**

		Group A	Group B	Group C
DC current gain – Kollektor-Basis-Stromverhältnis				
$-V_{CE}$ = 5 V, $-I_C$ = 2 mA	h_{FE}	110...220	200...460	420...800
h-Parameters at $-V_{CE}$ = 5V, $-I_C$ = 2 mA, f = 1 kHz				
Small signal current gain Stromverstärkung	h_{fe}	typ. 220	typ. 330	typ. 600
Input impedance – Eingangsimpedanz	h_{ie}	1.6...4.5 kΩ	3.2...8.5 kΩ	6...15 kΩ
Output admittance – Ausg.-Leitwert	h_{oe}	18 < 30 µS	30 < 60 µS	60 < 110 µS
Reverse voltage transfer ratio Spannungsrückwirkung	h_{re}	typ.1.5 $*10^{-4}$	typ. 2 $*10^{-4}$	typ. 3 $*10^{-4}$
Collector saturation voltage – Kollektor-Sättigungsspg.				
$-I_C$ = 100 mA, $-I_B$ = 5 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°C) Kennwerte (T_j = 25°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	- I_{CE0}	–	–	0.1 µA
- V_{CE} = 40 V	BC 557	- I_{CE0}	–	–	0.1 µA
- V_{CE} = 25 V	BC 558	- I_{CE0}	–	–	0.1 µA
- V_{CE} = 25 V	BC 559	- I_{CE0}	–	–	0.1 µA
Gain-Bandwidth Product – Transitfrequenz					
- 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...	F	–	2 dB	10 dB
R_G = 2 kΩ f = 1 kHz,	BC 558				
Δf = 200 Hz	BC 559	F	–	1 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

[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