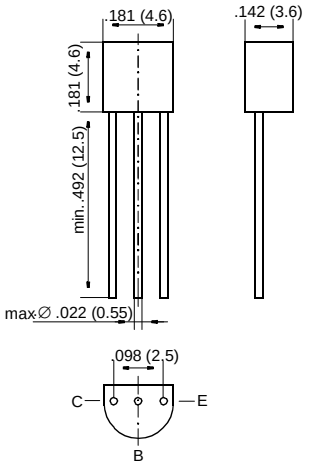
BC327, BC328

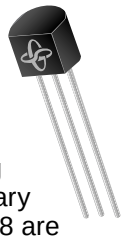
Small Signal Transistors (PNP)

TO-92



Dimensions in inches and (millimeters)

FEATURES



- PNP Silicon Epitaxial Planar Transistors for switching and amplifier applications. Especially suit-able for AF-driver stages and low-power output stages.
- These types are also available subdivided into three groups -16, -25, and -40, according to their DC current gain. As complementary types, the NPN transistors BC337 and BC338 are recommended.
- On special request, these transistors are also manufactured in the pin configuration TO-18.

MECHANICAL DATA

Case: TO-92 Plastic Package
Weight: approx. 0.18 g

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified

		Symbol	Value	Unit
Collector-Emitter Voltage	**BC327** **BC328**	$-V_{CES}$ $-V_{CES}$	50 30	V V
Collector-Emitter Voltage	**BC327** **BC328**	$-V_{CEO}$ $-V_{CEO}$	45 25	V V
Emitter-Base Voltage		$-V_{EBO}$	5	V
Collector Current		$-I_C$	800	mA
Peak Collector Current		$-I_{CM}$	1	A
Base Current		$-I_B$	100	mA
Power Dissipation at T_{amb} = 25 °C		P_{tot}	625[1)]	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_S	–65 to +150	°C

[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case.

ELECTRICAL CHARACTERISTICS

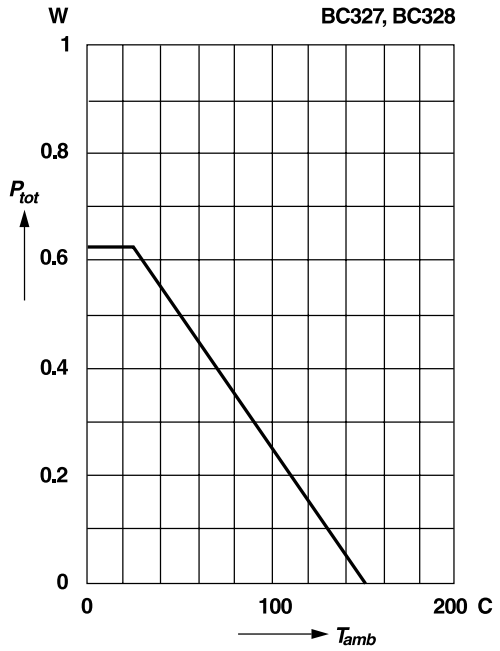
Ratings at 25 °C ambient temperature unless otherwise specified

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA					
Current Gain Group-16	h_{FE}	100	160	250	–
-25	h_{FE}	160	250	400	–
-40	h_{FE}	250	400	630	–
at $-V_{CE}$ = 1 V, $-I_C$ = 300 mA					
Current Gain Group-16	h_{FE}	60	130	–	–
-25	h_{FE}	100	200	–	–
-40	h_{FE}	170	320	–	–
Thermal Resistance Junction to Ambient Air	R_{thJA}	–	–	200[1)]	K/W
Collector-Emitter Cutoff Current					
at $-V_{CE}$ = 45 V **BC327**	$-I_{CES}$	–	2	100	nA
at $-V_{CE}$ = 25 V **BC328**	$-I_{CES}$	–	2	100	nA
at $-V_{CE}$ = 45 V, T_{amb} = 125 °C **BC327**	$-I_{CES}$	–	–	10	µA
at $-V_{CE}$ = 25 V, T_{amb} = 125 °C **BC328**	$-I_{CES}$	–	–	10	µA
Collector-Emitter Breakdown Voltage at $-I_C$ = 10 mA **BC327**	–	45	–	–	V
BC328	$V_{(BR)CEO}$	25	–	–	V
	–				
	$V_{(BR)CEO}$				
Collector-Emitter Breakdown Voltage at $-I_C$ = 0.1 mA **BC327**	–	50	–	–	V
BC328	$V_{(BR)CES}$	30	–	–	V
	–				
	$V_{(BR)CES}$				
Emitter-Base Breakdown Voltage at $-I_E$ = 0.1 mA	– $V_{(BR)EBO}$	5	–	–	V
Collector Saturation Voltage at $-I_C$ = 500 mA, $-I_B$ = 50 mA	$-V_{CEsat}$	–	–	0.7	V
Base-Emitter Voltage at $-V_{CE}$ = 1 V, $-I_C$ = 300 mA	$-V_{BE}$	–	–	1.2	V
Gain-Bandwidth Product at $-V_{CE}$ = 5 V, $-I_C$ = 10 mA, f = 50 MHz	f_T	–	100	–	MHz
Collector-Base Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz	C_{CBO}	–	12	–	pF

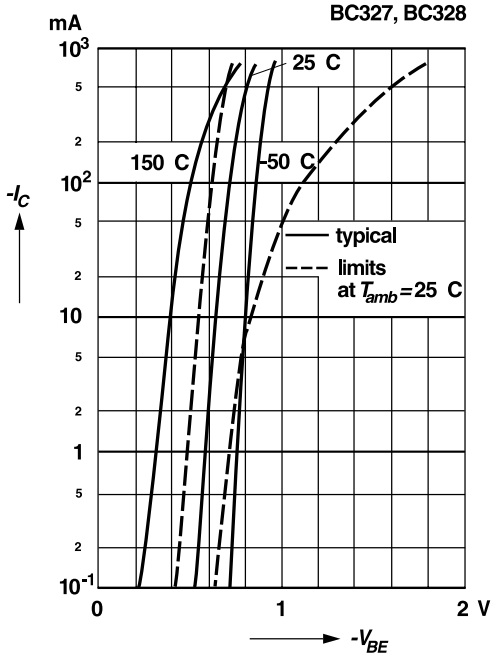
[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case.

Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

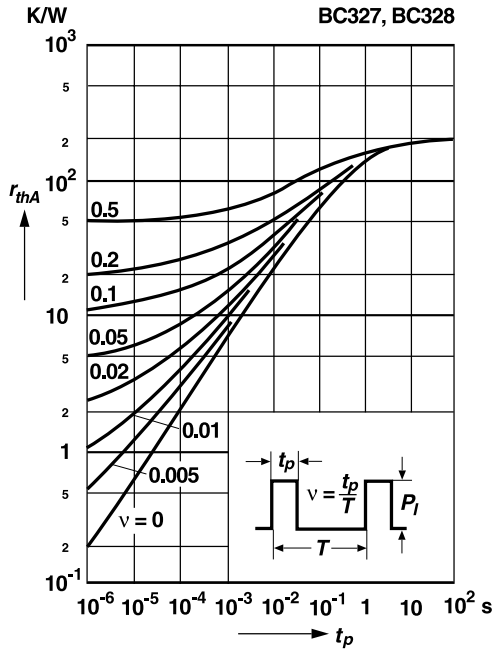


Collector current versus base-emitter voltage

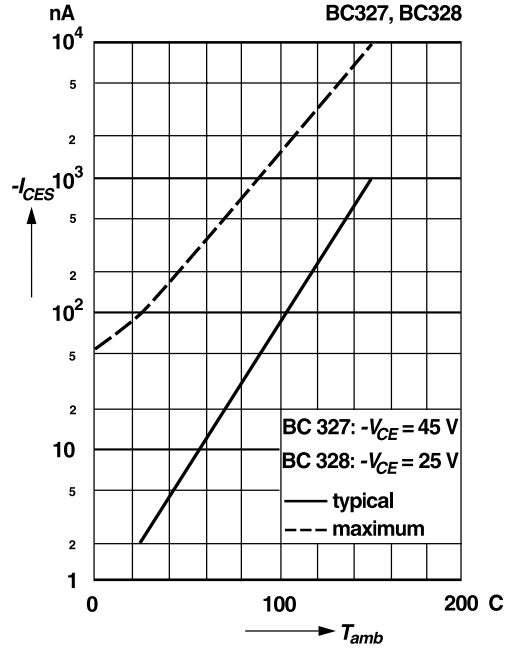


Pulse thermal resistance versus pulse duration

Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



Collector-emitter cutoff current versus ambient temperature



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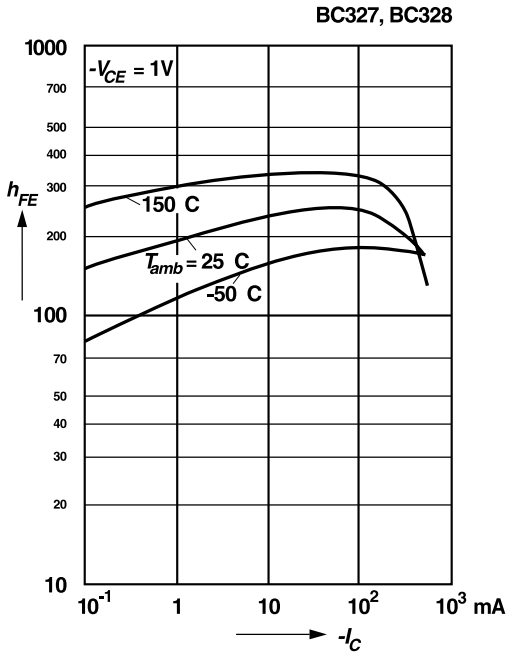
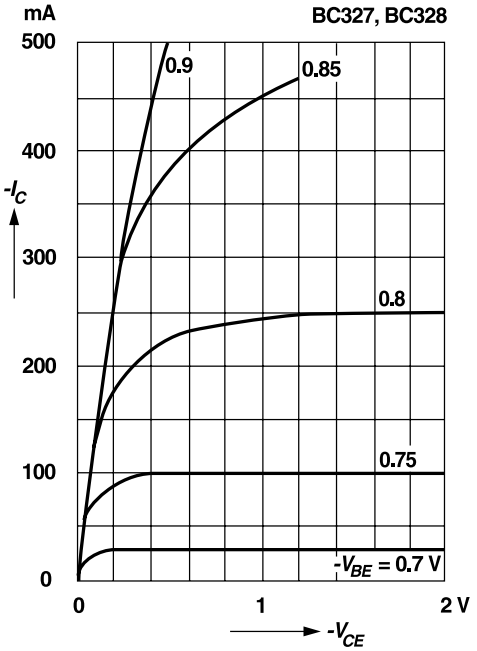
RATINGS AND CHARACTERISTIC CURVES BC327, BC328

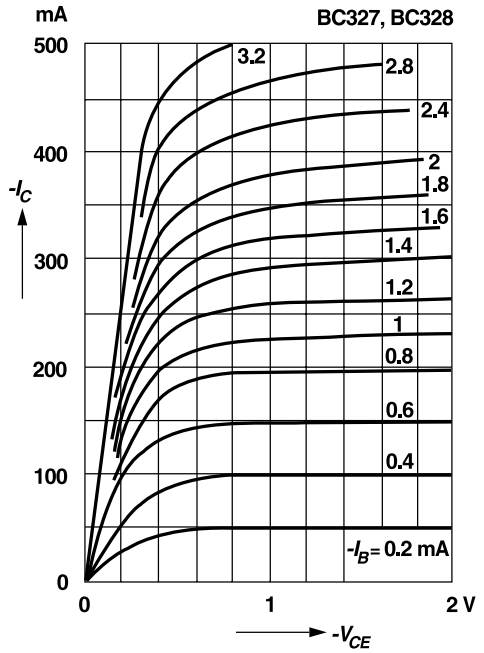
DC current gain
versus collector current



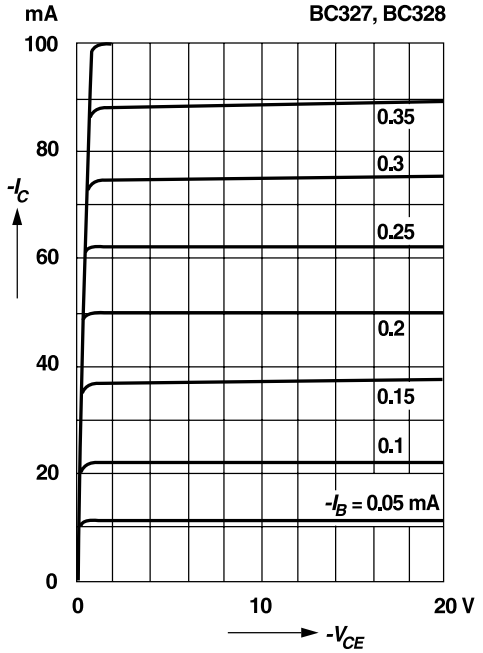
Common emitter
collector characteristics



Common emitter
collector characteristics



Common emitter
collector characteristics



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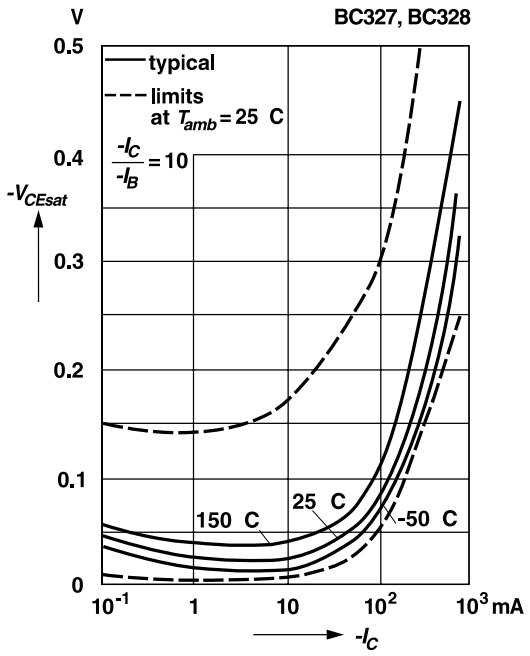
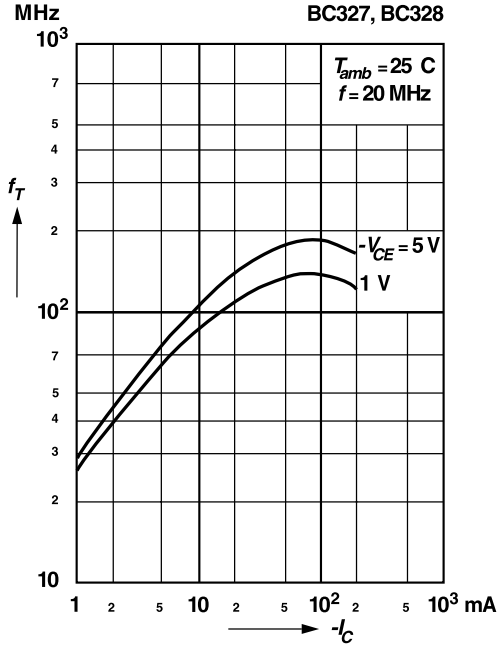
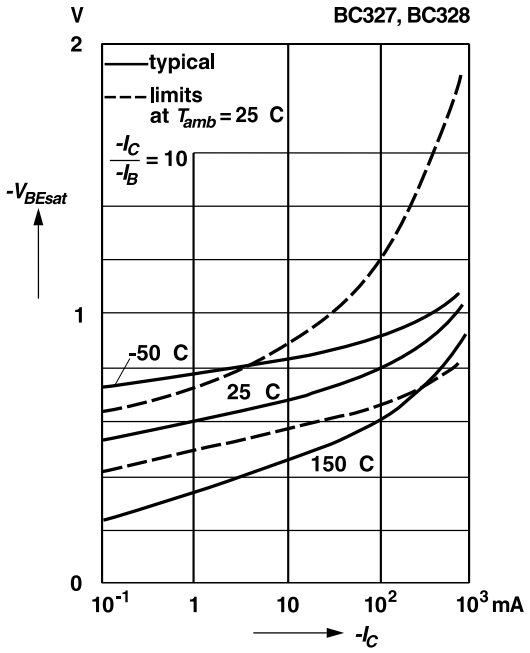
Collector saturation voltage versus collector current



Gain-bandwidth product versus collector current



Base saturation voltage versus collector current



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