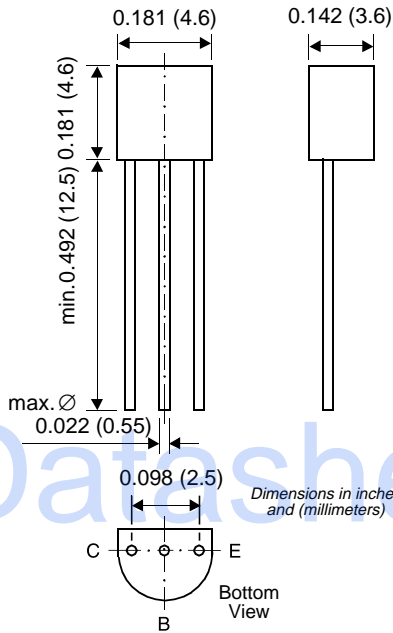




### TO-226AA (TO-92)



### Features

- PNP Silicon Epitaxial Planar Transistors for switching and amplifier applications. Especially suitable 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 BC327 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. 0.18g

**Packaging Codes/Options:**

E6/Bulk - 5K per container

E7/4K per Ammo tape

### Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameters		Symbols	Value	Units
Collector-Emitter Voltage	BC327 BC328	-V <sub>CES</sub>	50 30	V
Collector-Emitter Voltage	BC327 BC328	-V <sub>CEO</sub>	45 25	V
Emitter-Base Voltage		-V <sub>EBO</sub>	5	V
Collector Current		-I <sub>C</sub>	800	mA
Peak Collector Current		-I <sub>CM</sub>	1	A
Base Current		-I <sub>B</sub>	100	mA
Power Dissipation at Tamb = 25°C		P <sub>tot</sub>	625 <sup>(1)</sup>	mW
Thermal Resistance Junction to Ambient Air		R <sub>θJA</sub>	200 <sup>(1)</sup>	°C/W
Junction Temperature		T <sub>j</sub>	150	°C
Storage Temperature Range		T <sub>s</sub>	- 65 to +150	°C

**Notes:** (1) Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case.

## Small Signal Transistors (PNP)

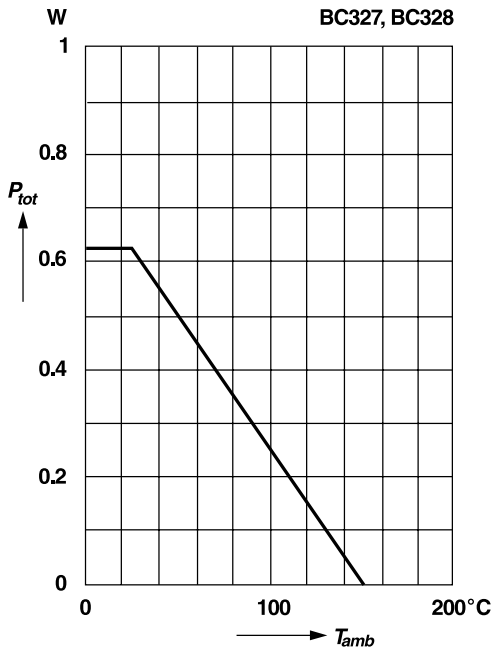
### Electrical Characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit	
DC Current Gain	hFE	-V <sub>CE</sub> = 1 V, -I <sub>C</sub> = 100 mA	Current Gain Group -16	100	160	250	—
			-25	160	250	400	
			-40	250	400	630	
		Current Gain Group -16	60	130	—		
			-25	100	200	—	
			-40	170	320	—	
Collector-Emitter Cutoff Current	-I <sub>CES</sub>	-V <sub>CE</sub> = 45 V	BC327	—	2	100	nA
			BC328	—	2	100	nA
		-V <sub>CE</sub> = 45 V, T <sub>amb</sub> = 125°C	BC327	—	—	10	μA
			BC328	—	—	10	μA
Collector Saturation Voltage	-V <sub>CEsat</sub>	-I <sub>C</sub> = 500 mA, -I <sub>B</sub> = 50 mA	—	—	0.7	V	
Base-Emitter Voltage	-V <sub>BE</sub>	-V <sub>CE</sub> = 1 V, -I <sub>C</sub> = 300 mA	—	—	1.2	V	
Collector-Emitter Breakdown Voltage	-V <sub>(BR)CEO</sub>	-I <sub>C</sub> = 10 mA	BC327	45	—	—	V
			BC328	25	—	—	
Collector-Emitter Breakdown Voltage	-V <sub>(BR)CES</sub>	-I <sub>C</sub> = 0.1 mA	BC327	50	—	—	V
			BC328	30	—	—	
Emitter-Base Breakdown Voltage	-V <sub>(BR)EBO</sub>	-I <sub>E</sub> = 0.1 mA	5	—	—	V	
Gain-Bandwidth Product	f <sub>T</sub>	-V <sub>CE</sub> = 5 V, -I <sub>C</sub> = 10 mA f = 50 MHz	—	100	—	MHz	
Collector-Base Capacitance	C <sub>CB0</sub>	-V <sub>CB</sub> = 10 V, f = 1 MHz	—	12	—	pF	

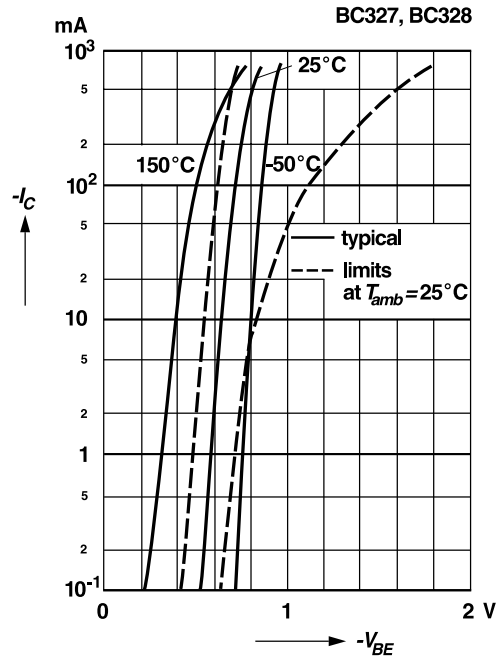
### Ratings and Characteristic Curves

#### Admissible power dissipation versus ambient temperature

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

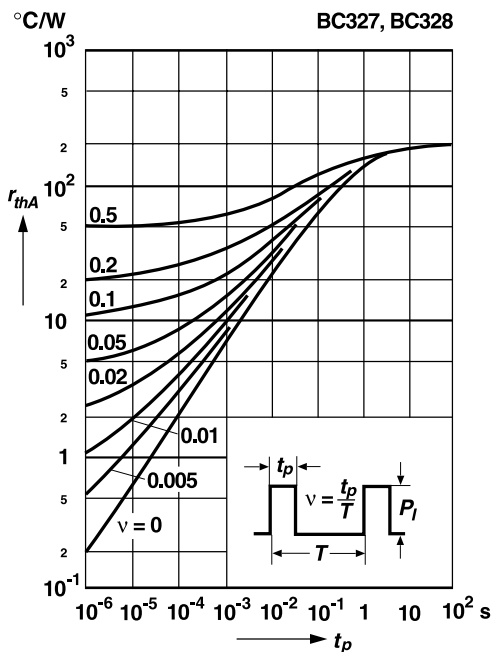


#### Collector current versus base-emitter voltage

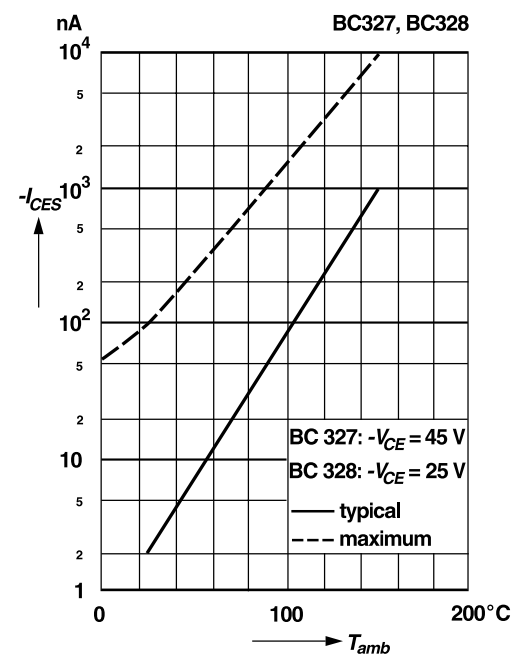


#### Pulse thermal resistance versus pulse duration

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

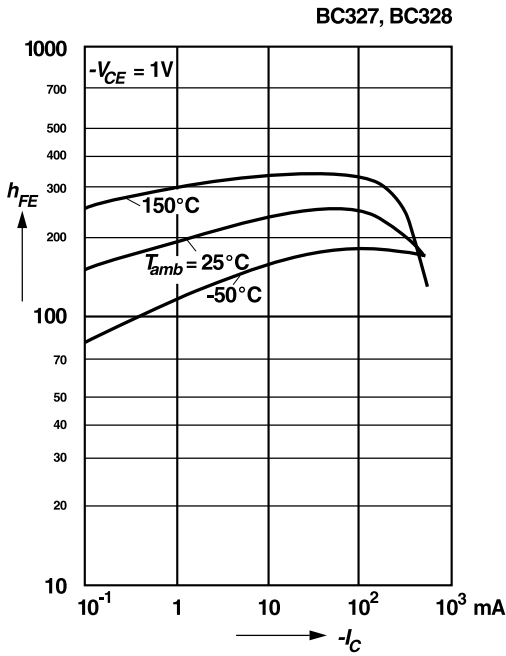


#### Collector-emitter cutoff current versus ambient temperature

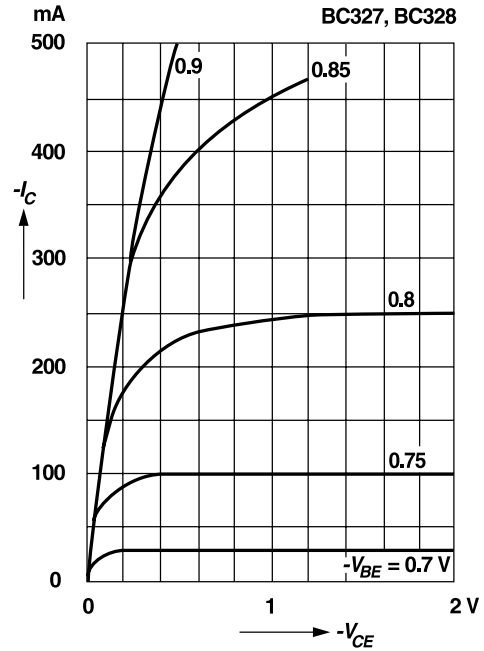


### Ratings and Characteristic Curves

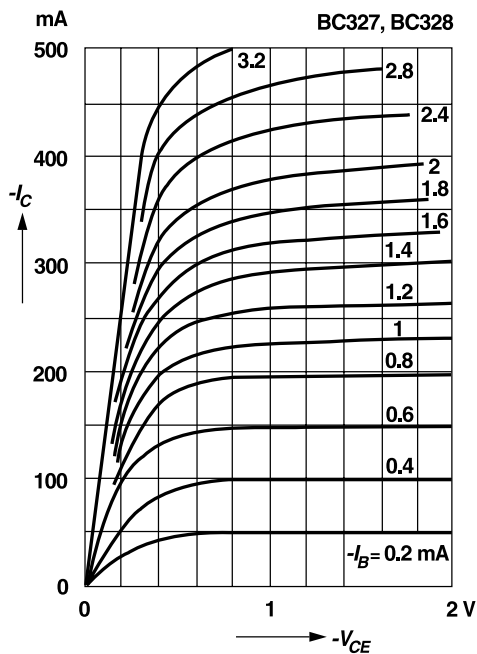
DC current gain versus collector current



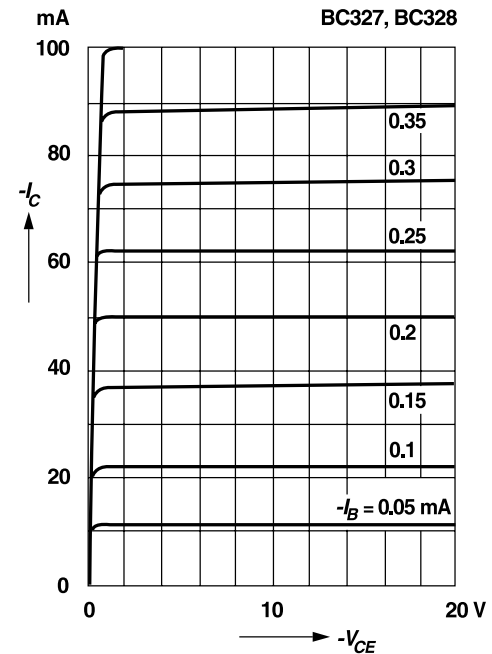
Common emitter collector characteristics



Common emitter collector characteristics

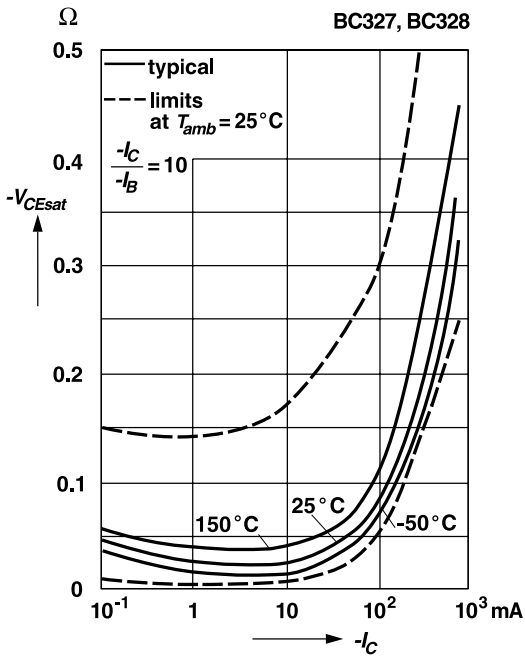


Common emitter collector characteristics

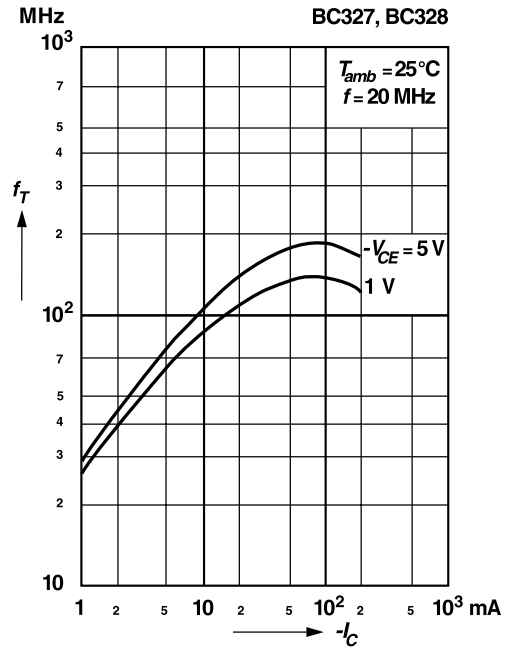


### Ratings and Characteristic Curves

Collector saturation voltage versus collector current



Gain-bandwidth product versus collector current



Base saturation voltage versus collector current

