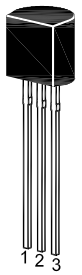
BC368

NPN Silicon Epitaxial Planar Transistor

Applications

- General purpose switching and amplification
- Power applications such as audio output stages



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

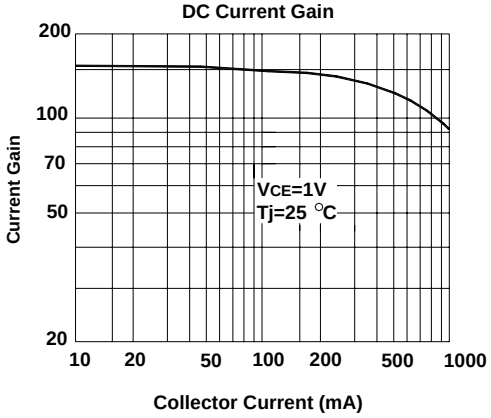
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	32	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	1	A
Peak Collector Current	I_{CM}	2	A
Total Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

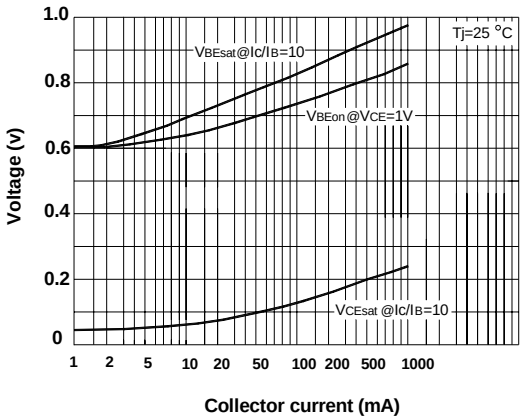
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at V_{CE} = 10 V, I_C = 5 mA at V_{CE} = 1 V, I_C = 500 mA at V_{CE} = 1 V, I_C = 1 A	 h_{FE} h_{FE} h_{FE}	 50 85 60	 - 375 -	 - - -
Collector Base Cutoff Current at V_{CB} = 25 V	I_{CBO}	-	100	nA
Emitter Base Cutoff Current at V_{EB} = 5 V	I_{EBO}	-	100	nA
Collector Base Breakdown Voltage at I_C = 100 µA	$V_{(BR)CBO}$	32	-	V
Collector Emitter Breakdown Voltage at I_C = 10 mA	$V_{(BR)CEO}$	20	-	V
Emitter Base Breakdown Voltage at I_E = 100 µA	$V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at I_C = 1 A, I_B = 100 mA	$V_{CE(sat)}$	-	0.5	V
Base Emitter On Voltage at V_{CE} = 1 V, I_C = 1 A	$V_{BE(on)}$	-	1	V
Gain Bandwidth Product at V_{CE} = 5 V, I_C = 10 mA, f = 20 MHz	f_T	40	-	MHz

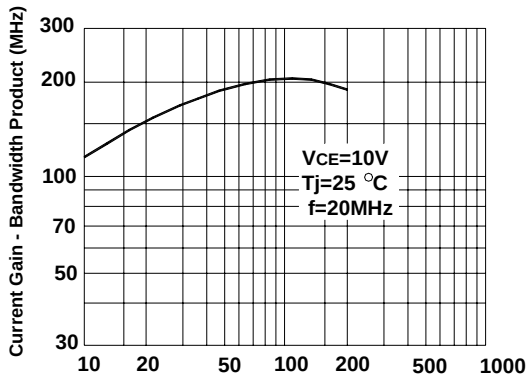
DC Current Gain



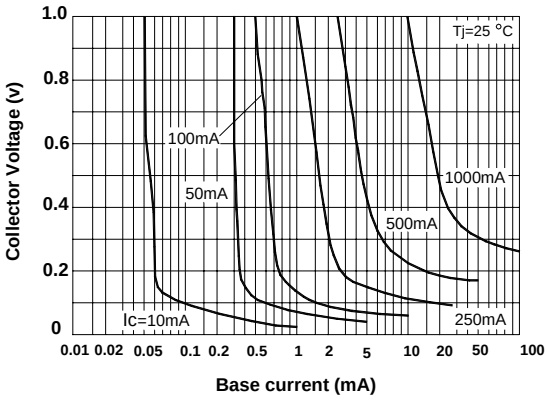
On Voltages



Current Gain - Bandwidth Product



Collector Saturation Region



Capacitance