

TO-92



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



Features

- ◇ For switching and AF amplifier applications
- ◇ These types are subdivided into three groups A, B and C according to their current gain
- ◇ Moisture sensitivity level 1
- ◇ Driver transistor
- ◇ Pb free version and RoHS compliant
- ◇ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

Mechanical Data

- ◇ Case : TO-92 small outline plastic package per MIL-STD-202, Method 208 guaranteed
- ◇ High temperature soldering guaranteed: 260°C/10s
- ◇ Weight approx.: 190 mg

Ordering Information (example)

Part No.	Package	Packing	Packing code	Packing code (Green)	Marking	Manufacture code
BC546...BC550A/B/C	TO-92	4K / AMMO	A1	A1G	BC546A/B/C	B0

Note : Detail please see "Ordering Information(detail, example)" below.

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Collector Base Voltage	V _{CBO}	BC546	80
		BC547, BC550	50
		BC548, BC549	30
Collector Emitter Voltage	V _{CEO}	BC546	65
		BC547, BC550	45
		BC548, BC549	30
Emitter Base Voltage	V _{EBO}	6	V
Collector Current (DC)	I _C	100	mA
Peak Collector Current	I _{CM}	200	mA
Total Power Dissipation	P _{TOT}	500	mW
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{STG}	- 65 to + 150	°C

Small Signal Product

Characteristics at $T_A=25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Units
DC Current Gain at $V_{CE}=5\text{V}$, $I_C=2\text{mA}$ Current Gain Group A	h_{FE}	110	-	220	V
		200	-	450	
		420	-	800	
Collector Base Cutoff Current at $V_{CB}=30\text{V}$	I_{CBO}	-	-	15	nA
Emitter Base Cutoff Current at $V_{EB}=5\text{V}$	I_{EBO}	-	-	100	nA
Collector Base Breakdown Voltage at $I_C=100\mu\text{A}$	BC546	80	-	-	V
	BC547, BC550	50	-	-	
	BC548, BC549	30	-	-	
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	BC546	65	-	-	V
	BC547, BC550	45	-	-	
	BC548, BC549	30	-	-	
Emitter Base Breakdown Voltage at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	6	-	-	V

FIG.1 Static Characteristic

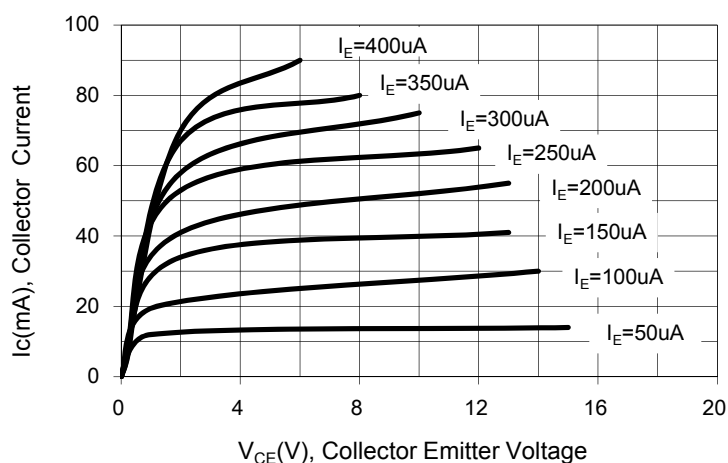


FIG. 2 Transfer Characteristic

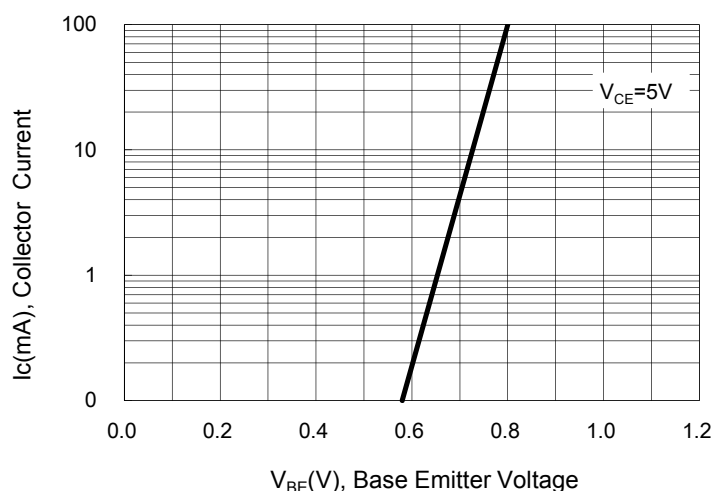


FIG. 3 DC Current Gain

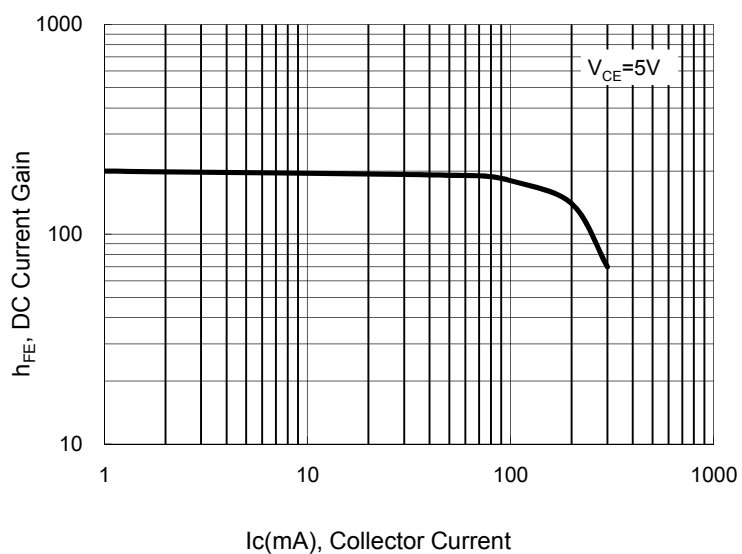
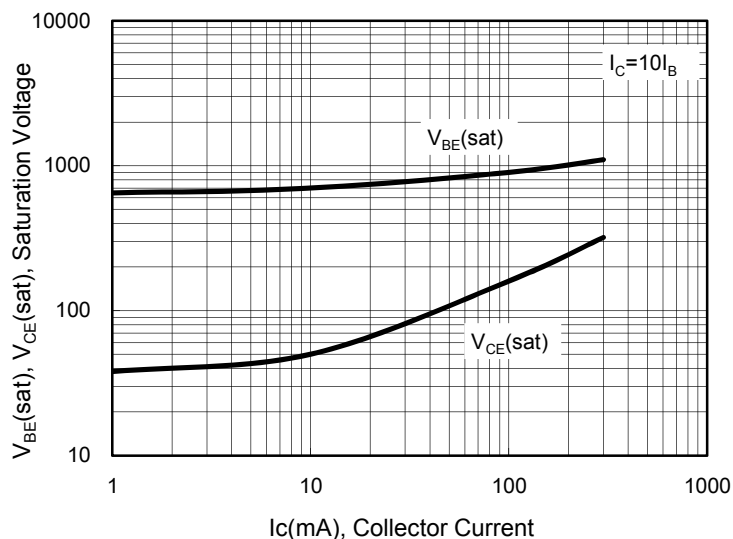


FIG. 4 Base Emitter Saturation Voltage
Collector Emitter Saturation Voltage



Small Signal Product

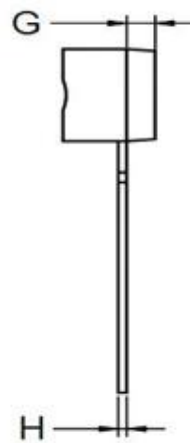
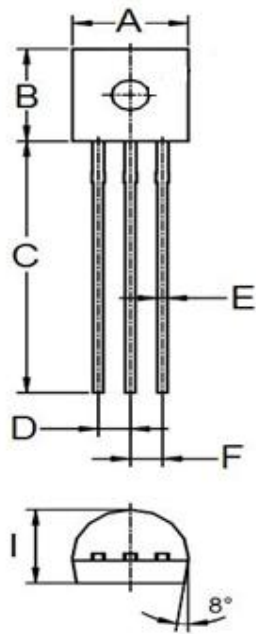
Ordering information(detail, example)

Part No.	Package	Packing	Packing code	Packing code (Green)	Marking	Manufacture code
BC5xxA/B/C (Note1)	TO-92	4K / Ammo	A1	A1G	BC5xxA/B/C (Note1)	(Note 2)
		5K / Bulk	B1	B1G		
BC546A/B/C	TO-92	4K / Ammo	A1	A1G	BC546A/B/C	
BC546A/B/C	TO-92	4K / Ammo	A1	A1G	BC546A/B/C	B0

Note 1: "xx" is Device Code from "46" thru "50".

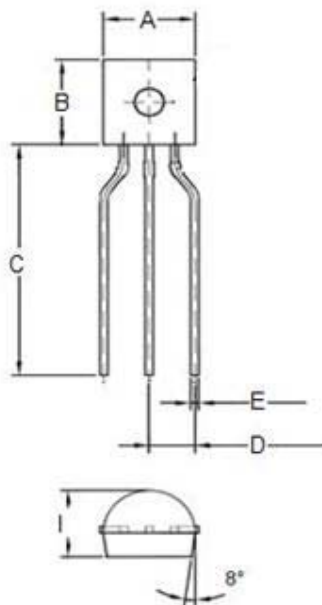
Note 2: Manufacture dpecial control, if empty means no special control requirement.

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	4.40	5.10	0.173	0.201
B	4.30	4.70	0.169	0.185
C	12.50	-	0.492	-
D	1.17	1.37	0.046	0.054
E	0.350	0.550	0.014	0.022
F	1.17	1.37	0.046	0.054
G	1.00	1.40	0.039	0.055
H	0.29	0.51	0.011	0.020
I	3.30	4.10	0.130	0.161

AMMO Packing Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	4.30	5.10	0.169	0.201
B	4.30	4.70	0.169	0.185
C	12.50	-	0.492	-
D	2.20	2.80	0.087	0.110
E	0.350	0.550	0.014	0.022
G	1.00	1.40	0.039	0.055
H	0.29	0.51	0.011	0.020
I	3.40	4.10	0.134	0.161