

Small Signal Product

NPN Transistor
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 and RoHS compliant
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code


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

TO-92
MECHANICAL DATA

- Case: TO-92 small outline plastic package
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Weight: 190 mg (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Total Power dissipation	P _{TOT}	500	mW
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}	BC546	6
		BC547, BC550	6
		BC548, BC549	6
Collector Current	I _C	100	mA
Peak Collector Current	I _{CM}	200	mA
Junction and Storage Temperature Range	T _J , T _{STG}	-65 to + 150	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = 100µA	BC546	80
			BC547, BC550	50
			BC548, BC549	30
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C = 10mA	BC546	65
			BC547, BC550	45
			BC548, BC549	30
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = 100µA	BC546	6
			BC547, BC550	6
			BC548, BC549	6
Collector Base Cutoff Current	I _{CBO}	V _{CB} = 30V	-	15
Emitter Base Cutoff Current	I _{EBO}	V _{EB} = 5 V	-	100
DC Current Gain	h _{FE}	Current Gain Group: A B C V _{CE} = 5V, I _C = 2mA	A	110
			B	200
			C	420

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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG.1 Static Characteristic

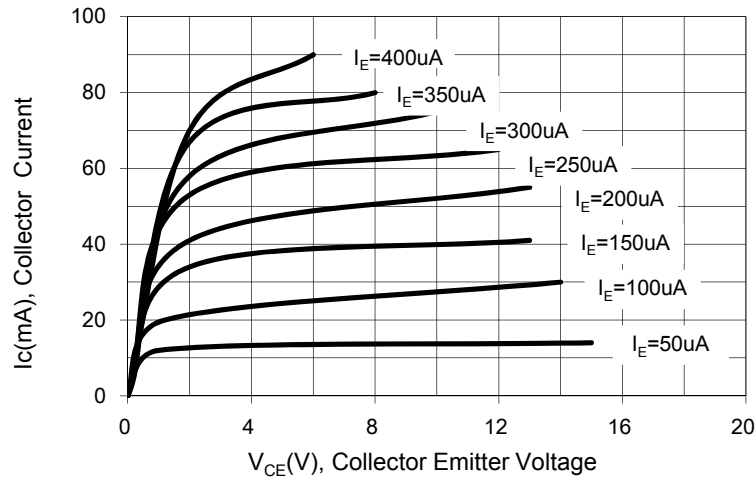


FIG. 2 Transfer Characteristic

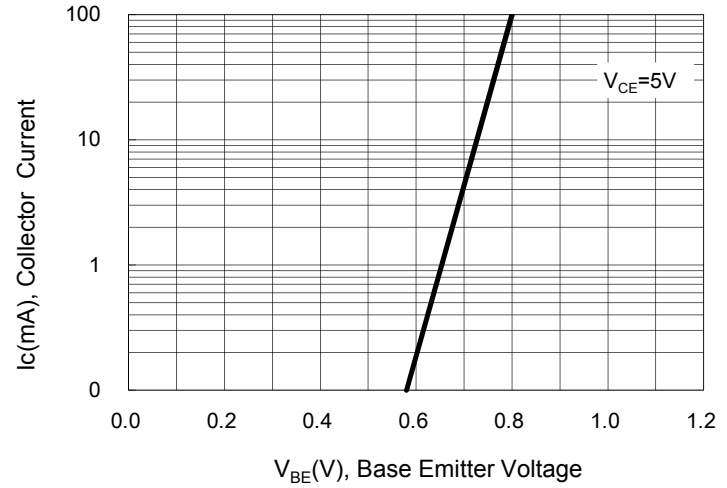


FIG. 3 DC Current Gain

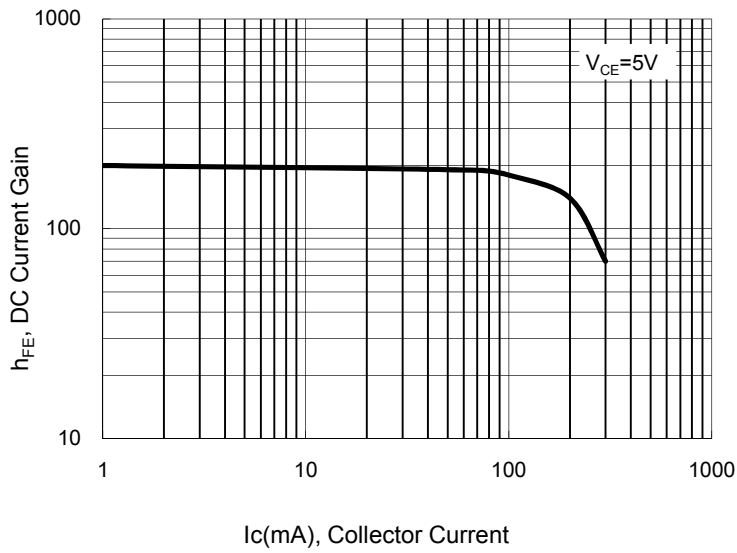
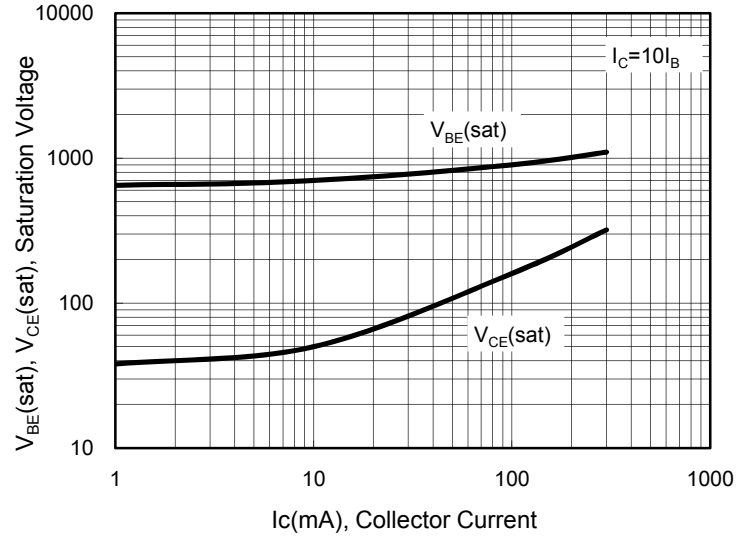


FIG. 4 Base Emitter Saturation Voltage
Collector Emitter Saturation Voltage



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ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE (Note1)	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
BC5xxA/B/C (Note2)		A1	G	TO-92	4K / Ammo	BC5xxA/B/C (Note2)
BC5xxA/B/C (Note2)		B1	G	TO-92	5K / Bulk	BC5xxA/B/C (Note2)

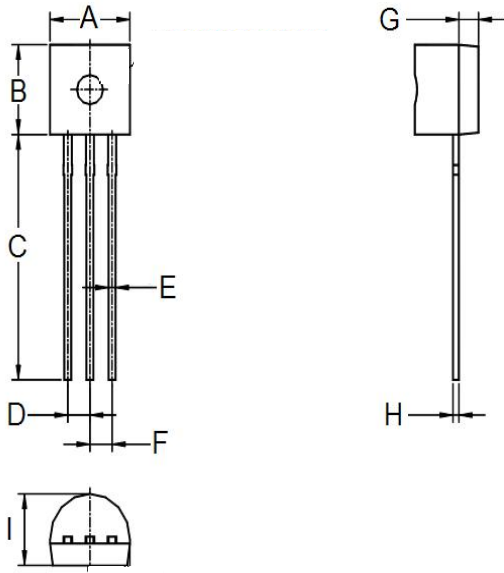
Note1: Manufacture special control, if empty means no special control requirement.

Note2: "xx" is Device Code from "46" thru "50", and "MARKING" should follow the "PART NO."

EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
BC546A A1G	BC546A		A1	G	Green compound

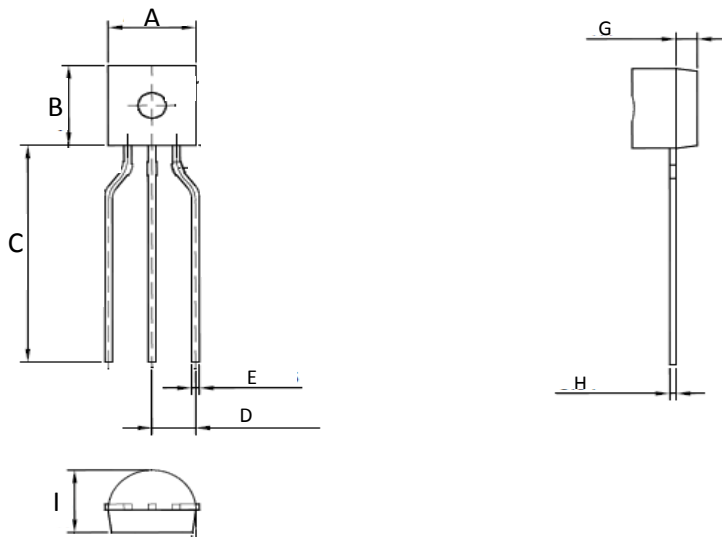
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DIMENSIONS
TO-92 Bulk



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	14.50	0.492	-
D	1.17	1.37	0.046	0.054
E	0.35	0.55	0.014	0.022
F	1.17	1.37	0.046	0.054
G	0.59	1.40	0.023	0.055
H	0.29	0.51	0.011	0.020
I	3.300	4.100	0.130	0.161

TO-92 Ammo



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.30	4.70	0.169	0.185
B	4.30	4.70	0.169	0.185
C	12.50	-	0.492	-
D	2.20	2.80	0.087	0.110
E	0.35	0.55	0.014	0.022
G	1.00	1.20	0.039	0.047
H	0.29	0.51	0.011	0.020
I	3.30	3.70	0.130	0.146

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