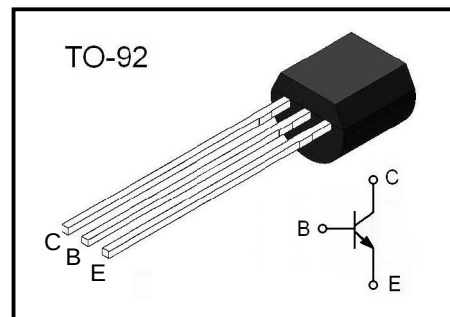


NPN Plastic-Encapsulate Transistors

Switching and Applications

Features

- ◆High Voltage: BC546, $V_{CE0}=65V$
- ◆Low Noise: BC549, BC550
- ◆Complement to BC556/557/558/559/BC560



Absolute Maximum Ratings ($T_a=25^{\circ}C$)

Parameter		Symbol	Value	Unit
Collector-Base Voltage	BC546	BV_{CBO}	80	V
	BC547/550		50	
	BC548/549		30	
Collector-Emitter Voltage	BC546	BV_{CEO}	65	V
	BC547/550		45	
	BC548/549		30	
Emitter-Base Voltage	BC546/547	BV_{EBO}	6	V
	BC548/549/550		5	
Collector Current		I_C	100	mA
Collector Power Dissipation		P_C	500	mW
Junction Temperature Storage Temperature		T_j 、 T_{stg}	150 -55~+150	$^{\circ}C$

Electrical Characteristics ($T_a=25^{\circ}C$)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector cut-off current	I_{CBO}	$V_{CB} = 30V, I_E = 0$			15	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			15	nA
DC current gain	h_{FE}	$V_{CE} = 5V, I_C = 2mA$	110		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 0.5mA$ $I_C = 100mA, I_B = 5mA$			0.25 0.60	V
Base -emitter saturation voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 0.5mA$ $I_C = 100mA, I_B = 5mA$			1.0	V
Transition frequency	f_T	$V_{CE} = 5V, I_B = 10mA$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			6	pF

h_{FE} Classification

Classification	A	B	C
h_{FE}	110-220	200-450	420-800

Typical Characteristics

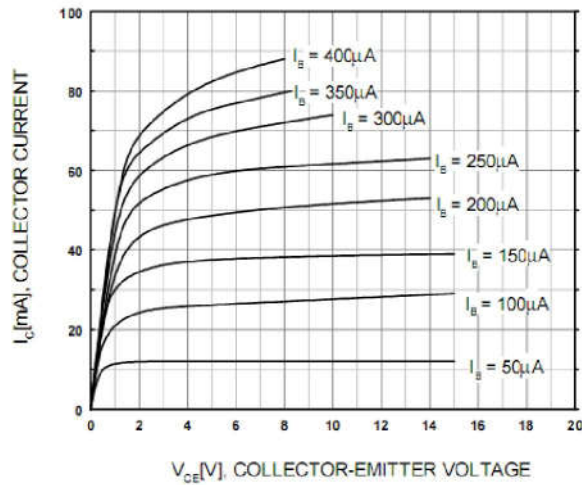


Figure 1. Static Characteristic

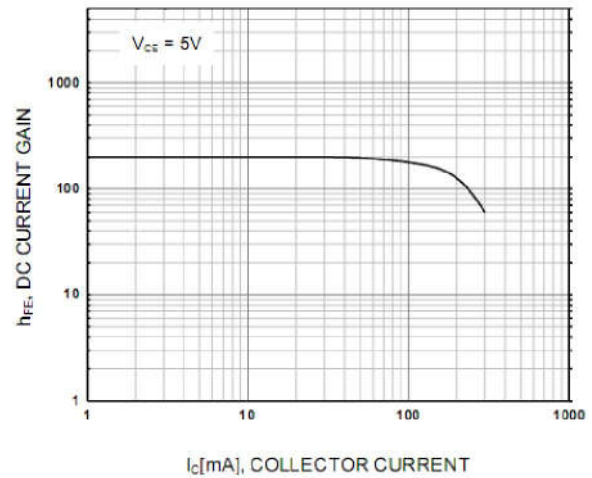


Figure 2. DC current Gain

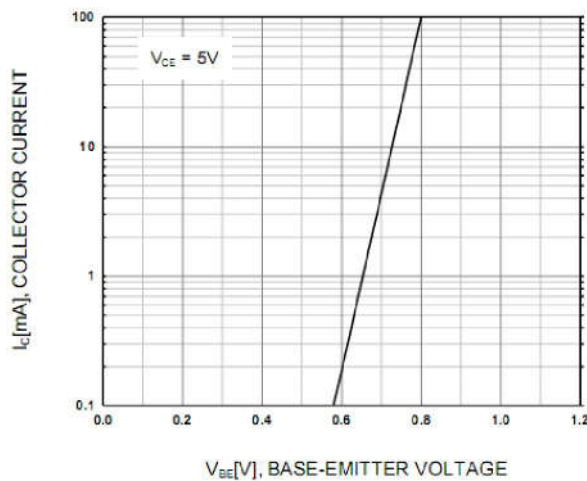


Figure 3. Transfer Characteristic

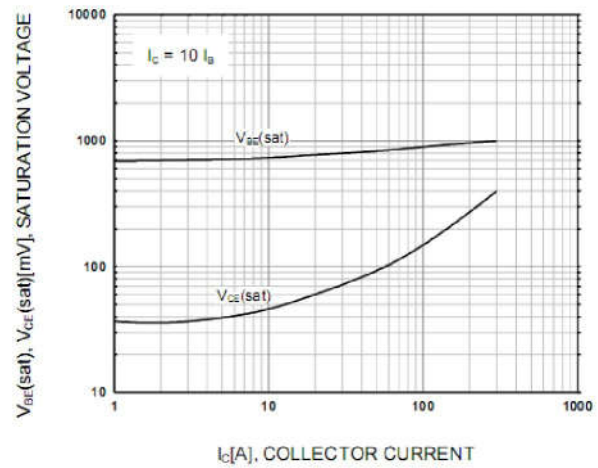


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

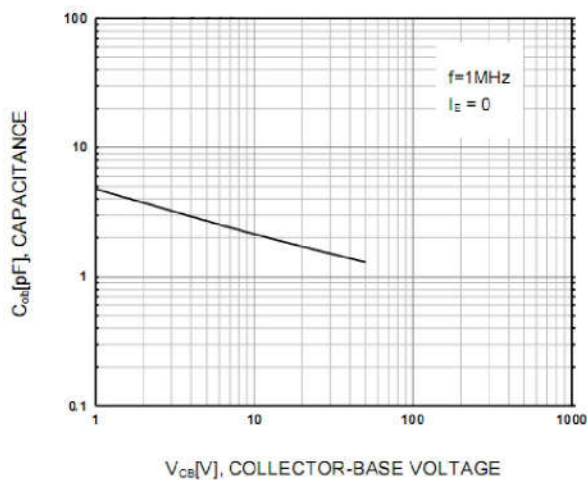


Figure 5. Output Capacitance

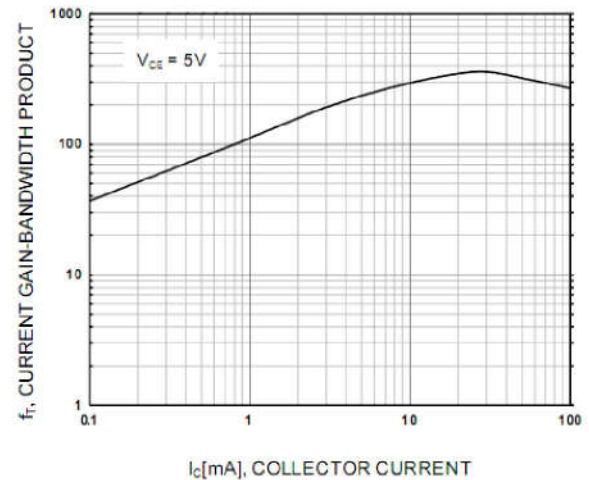


Figure 6. Current Gain Bandwidth Product

Ordering information

Package	Packing Description	Base Quantity
TO-92	Bulk	1000pcs/Bag
	Tape	2000pcs/Box

Package Dimensions

TO-92

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	3.30	3.70	0.130	0.146
A1	2.30	2.70	0.091	0.106
b	0.40	0.50	0.016	0.020
b1	0.50	0.70	0.020	0.028
c	0.35	0.45	0.014	0.018
D	4.45	4.70	0.175	0.185
E	4.40	4.65	0.173	0.183
e	1.17	1.37	0.046	0.054
e1	2.34	2.64	0.092	0.104
L	13.50	14.50	0.531	0.571
L1	1.80	2.20	0.071	0.087

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