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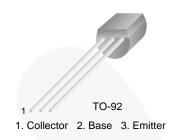
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BC546 / BC547 / BC548 / BC549 / BC550 NPN Epitaxial Silicon Transistor

Features

- Switching and Amplifier
- High-Voltage: BC546, V_{CEO} = 65 V
- Low-Noise: BC549, BC550
- Complement to BC556, BC557, BC558, BC559, and BC560



Ordering Information

Part Number	Marking	Package	Packing Method	
BC546ABU	BC546A	TO-92 3L	Bulk	
BC546ATA	BC546A	TO-92 3L	Ammo	
BC546BTA	BC546B	TO-92 3L	Ammo	
BC546BTF	BC546B	TO-92 3L	Tape and Reel	
BC546CTA	BC546C	TO-92 3L	Ammo	
BC547ATA	BC547A	TO-92 3L	Ammo	
BC547B	BC547B	TO-92 3L	Bulk	
BC547BBU	BC547B	TO-92 3L	Bulk	
BC547BTA	BC547B	TO-92 3L	Ammo	
BC547BTF	BC547B	TO-92 3L	Tape and Reel	
BC547CBU	BC547C	TO-92 3L Bulk		
BC547CTA	BC547C	TO-92 3L	Ammo	
BC547CTFR	BC547C	TO-92 3L Tape and F		
BC548BU	BC548	TO-92 3L Bulk		
BC548BTA	BC548B	TO-92 3L Ammo		
BC548CTA	BC548C	TO-92 3L	-92 3L Ammo	
BC549BTA	BC549B	TO-92 3L Ammo		
BC549BTF	BC549B	TO-92 3L Tape and Reel		
BC549CTA	BC549C	TO-92 3L Ammo		
BC550CBU	BC550C	TO-92 3L	Bulk	
BC550CTA	BC550C	TO-92 3L	Ammo	

November 2014

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^{\circ}$ C unless otherwise noted.

Symbol	Parameter		Value	Unit	
		BC546	80		
V _{CBO}	Collector-Base Voltage	BC547 / BC550	50	V	
		BC548 / BC549	30		
		BC546	65		
V _{CEO}	Collector-Emitter Voltage	BC547 / BC550	45	V	
		BC548 / BC549	30		
V	Emitter-Base Voltage	BC546 / BC547	6	- V	
V _{EBO}	Liniter-base voltage	BC548 / BC549 / BC550	5		
Ι _C	Collector Current (DC)		100	mA	
P _C	Collector Power Dissipation		500	mW	
TJ	Junction Temperature		150	°C	
T _{STG}	Storage Temperature Range		-65 to +150	°C	

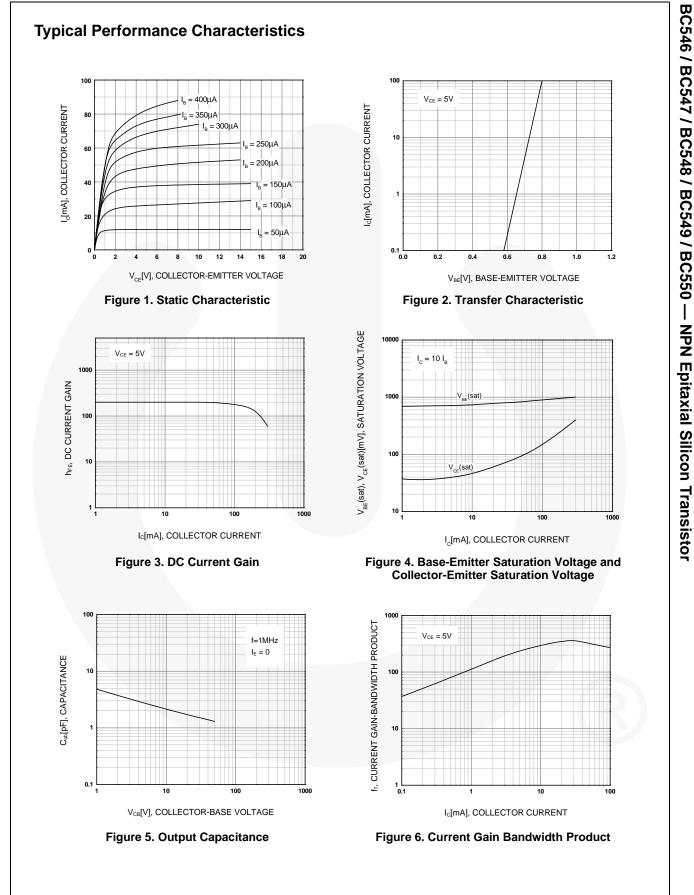
Electrical Characteristics

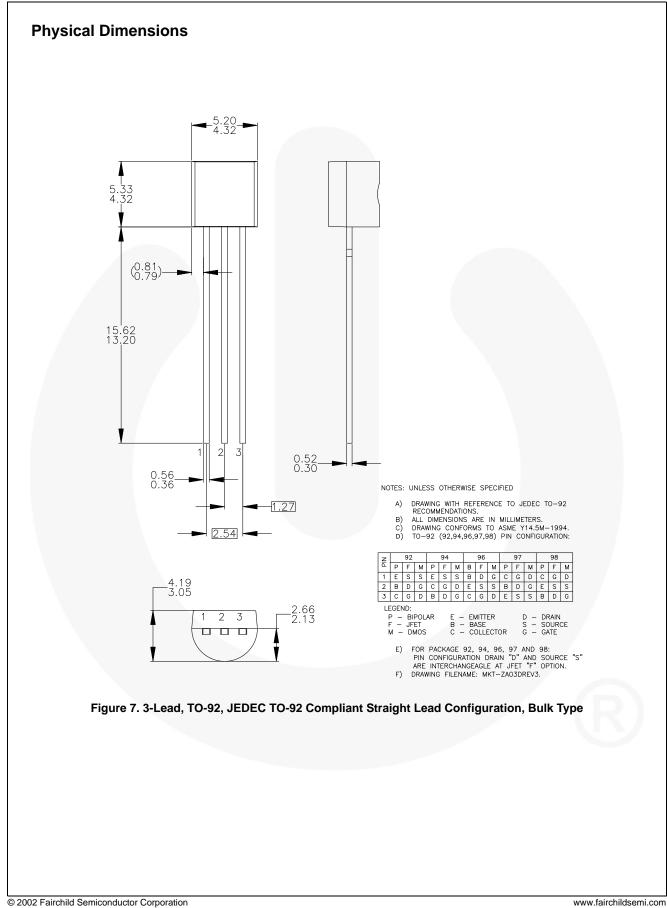
Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

Symbol		Parameter	Conditions	Min.	Тур.	Max.	Unit
I _{CBO}	Collector Cut-Off Current		$V_{CB} = 30 \text{ V}, I_{E} = 0$			15	nA
h _{FE}	DC Current Gain		$V_{CE} = 5 \text{ V}, \text{ I}_{C} = 2 \text{ mA}$	110		800	
Collector		r-Emitter Saturation	$I_{\rm C} = 10$ mA, $I_{\rm B} = 0.5$ mA		90	250	mV
V _{CE} (sat) Voltage		$I_{\rm C} = 100 \text{ mA}, I_{\rm B} = 5 \text{ mA}$		250	600		
V _{BE} (sat) Base-En	aittor Soturation Voltago	$I_{\rm C} = 10$ mA, $I_{\rm B} = 0.5$ mA		700		m)/	
	nitter Saturation Voltage	I _C = 100 mA, I _B = 5 mA		900		mV	
)/ (an)	V _{BE} (on) Base-Emitter On Voltage		$V_{CE} = 5 \text{ V}, I_{C} = 2 \text{ mA}$	580	660	700	mV
V _{BE} (on) Base-En	niller On vollage	$V_{CE} = 5 \text{ V}, I_{C} = 10 \text{ mA}$			720		
f _T	Current Gain Bandwidth Product		$V_{CE} = 5 \text{ V}, I_{C} = 10 \text{ mA},$ f = 100 MHz		300		MHz
C _{ob}	Output Capacitance		$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		3.5	6.0	pF
C _{ib}	Input Capacitance		V _{EB} = 0.5 V, I _C = 0, f = 1 MHz		9		pF
	NF Noise Figure	BC546 / BC547 / BC548	V _{CE} = 5 V, I _C = 200 μA,		2.0	10.0	
		BC549 / BC550	f = 1 kHz, $R_G = 2 k\Omega$		1.2	4.0	dB
INF		BC549	V _{CE} = 5 V, I _C = 200 μA,		1.4	4.0	uБ
		BC550	$R_{G} = 2 \text{ k}\Omega$, f = 30 to 15000 MHz		1.4	3.0	

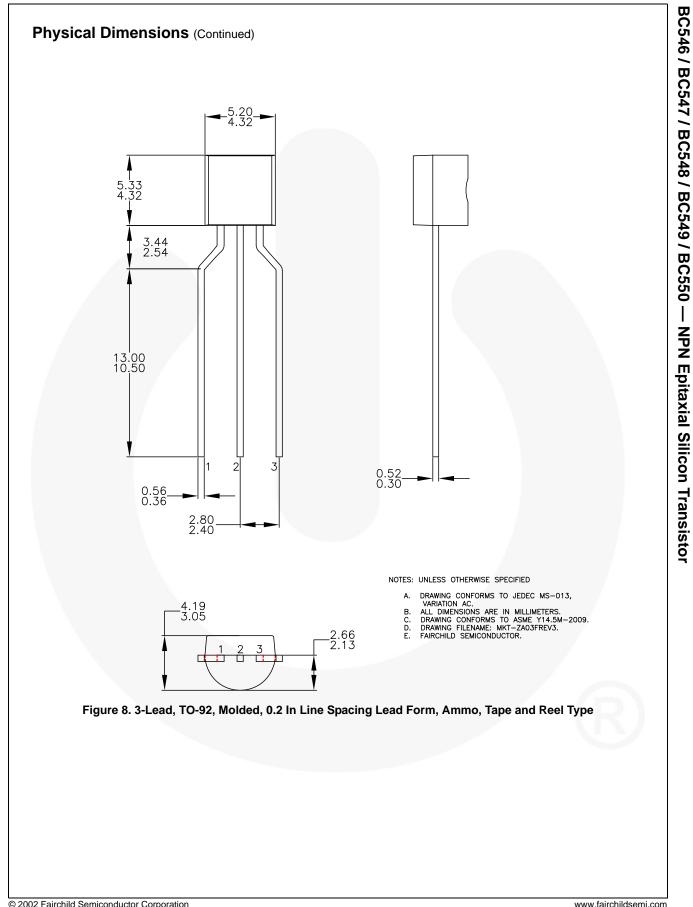
h_{FE} Classification

Classification	Α	В	C
h _{FE}	110 ~ 220	200 ~ 450	420 ~ 800





BC546 / BC547 / BC548 / BC549 / BC550 — NPN Epitaxial Silicon Transistor



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Rev. 172

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