BC549

TO-92 Plastic-Encapsulate Transistors

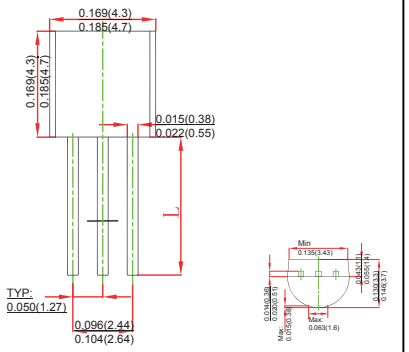
FEATURES

- Low Noise
- TRANSISTOR(NPN)

MECHANICAL DATA

- Case style:TO-92molded plastic
- Mounting position:any

TO-92



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	0.1	A
P_C	Collector Power Dissipation	0.625	W
T_J	Junction Temperature	150	℃
T_{atg}	Storage Temperature	-55-150	℃

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100uA, I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_C=10uA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=30V, I_E=0			15	nA
Collector cut-off current	I_{CEO}	V_{CE}=30V , I_B=0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}=5V , I_C=0			0.1	uA
DC current gain	HFE	V_{CE}=5V , I_C=2mA	110		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=0.5mA			0.25	V
		I_C=100mA, I_B=5mA			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA, I_B=0.5mA		0.7		V
		I_C=100mA, I_B=5mA		0.9		V
Base- emitter on voltage	$V_{BE(ON)}$	V_{CE}=5V , I_C=2mA	0.58		0.7	V
		V_{CE}=5V , I_C=10mA			0.72	
Gain Bandwidth Product	fT	V_{CE}=5V,I_C=10mA,f=100MHz		300		MHz

CLASSIFICATION OF HFE:

Rank	**A**	**B**	**C**
Range	110-220	200-450	420-800

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

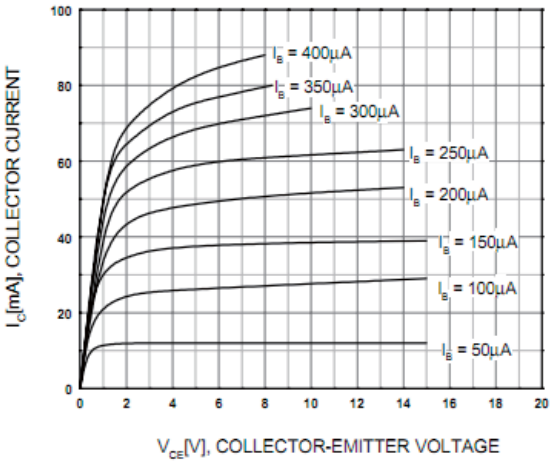


Figure 1. Static Characteristic

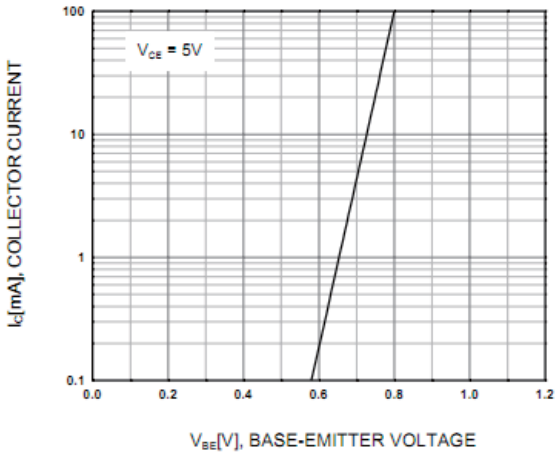


Figure 2. Transfer Characteristic

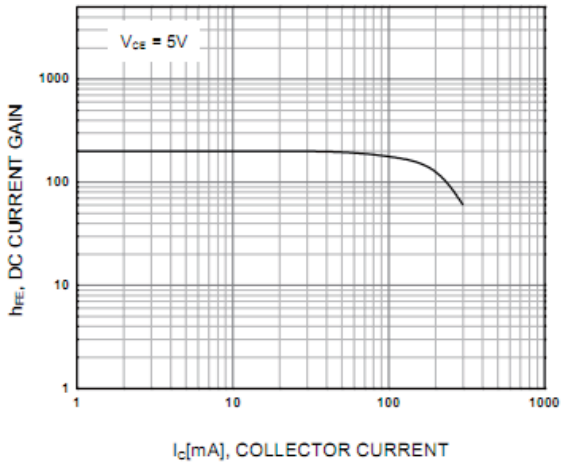


Figure 3. DC current Gain

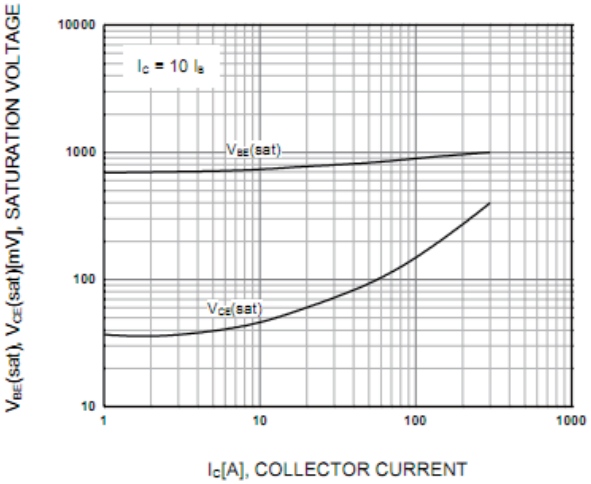


Figure 4. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

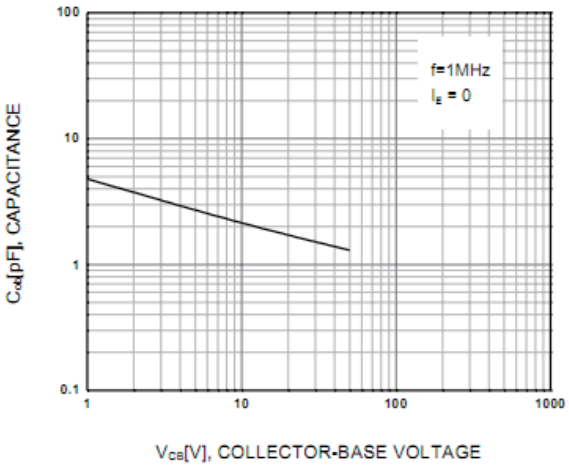


Figure 5. Output Capacitance

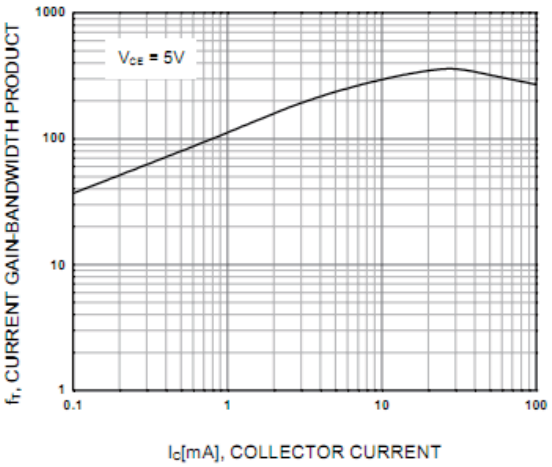


Figure 6. Current Gain Bandwidth Product