

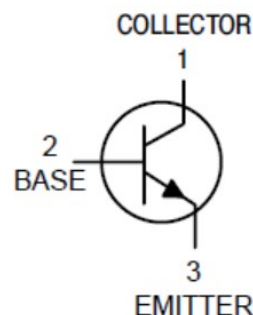
BC547

Features

- The NPN Bipolar Transistor is designed for use in linear and switching applications. The device is housed in the TO-92 package.
- These are PbFree Devices
- Complement to:BC557

Maximum Ratings (Ta = 25°)

Parameter	Symbol	Rating	Unit
Collector- base voltage	BV_{CBO}	50	V
Collector-emitter voltage	BV_{CEO}	45	V
Emitter-base voltage	BV_{EBO}	6	V
Collector current	I_{CM}	100	mA
Collector Power Dissipation	P_C	0.5	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector- Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu A, I_E=0$	50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1mA, I_B=0$	45			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=10\mu A, I_C=0$	6			V
Collector- Base cut-off current	I_{CBO}	$V_{CB}=50V, I_E=0$			0.1	μA
Collector-emitter cut-off current	I_{CEO}	$V_{CE}=45V, I_B=0$			0.1	μA
Emitter-Base cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	H_{FE}	$V_{CE}=5V, I_C=2mA$	110		800	
Collector-emitter saturation voltage	V_{CESAT}	$I_C=10mA, I_B=0.5mA$		90	250	mV
		$I_C=100mA, I_B=5mA$		250	600	mV
Base-Emitter On Voltage	V_{BEON}	$V_{CE}=5V, I_C=2mA$	580	660	700	mV
		$V_{CE}=5V, I_C=10mA$			720	mV
Transition frequency	f_T	$V_{CE}=5V, I_C=10mA$		300		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1.0MHz$		3	6	pF
Noise Figure	N_F	$V_{CE}=5V, I_C=200\mu A$			10	dB

H_{FE} Classification

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