

BC546/BC547/BC548 TRANSISTOR (NPN)

FEATURES

- High Voltage
- Complement to BC556,BC557,BC558

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

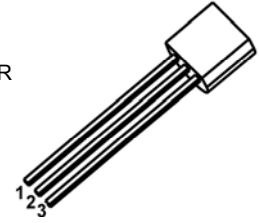
Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BC546	80	V
		BC547	50	
		BC548	30	
V_{CEO}	Collector-Emitter Voltage	BC546	65	V
		BC547	45	
		BC548	30	
V_{EBO}	Emitter-Base Voltage		6	V
I_C	Collector Current-Continuous		0.1	A
P_C	Collector Power Dissipation		625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient		200	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature		-55~+150	$^{\circ}\text{C}$

TO - 92

1. COLLECTOR

2. BASE

3. EMITTER



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter		Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC546	V _{(BR)CBO}	I _C = 0.1mA,I _E =0	80			V
	BC547			50			
	BC548			30			
Collector-emitter breakdown voltage	BC546	V _{(BR)CEO}	I _C =1mA,I _B =0	65			V
	BC547			45			
	BC548			30			
Emitter-base breakdown voltage		V _{(BR)EBO}	I _E =10μA,I _C =0	6			V
Collector cut-off current	BC546	I _{CBO}	V _{CB} =70V,I _E =0			0.1	μA
	BC547		V _{CB} =50V,I _E =0			0.1	μA
	BC548		V _{CB} =30V,I _E =0			0.1	μA
Collector cut-off current	BC546	I _{CEO}	V _{CE} =60V,I _B =0			0.1	μA
	BC547		V _{CE} =45V,I _B =0			0.1	μA
	BC548		V _{CE} =30V,I _B =0			0.1	μA
Emitter 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 _{CE(sat)}	I _C =100mA,I _B =5mA			0.3	V
Base-emitter saturation voltage		V _{BE(sat)}	I _C =100mA,I _B =5mA			1.1	V
Base-emitter voltage		V _{BE}	V _{CE} =5V, I _C =2mA	0.58		0.7	V
			V _{CE} =5V, I _C =10mA			0.75	V
Collector output capacitance		C _{ob}	V _{CB} =10V,I _E =0, f=1MHz			4.5	pF
Transition frequency		f _T	V _{CE} =5V,I _C =10mA, f=100MHz	150			MH

CLASSIFICATION of h_{FE}

RANK	A	B	C
RANGE	110-220	200-450	420-800