



TO-92 Plastic-Encapsulate Transistors

BC546/BC547/BC548 TRANSISTOR (NPN)

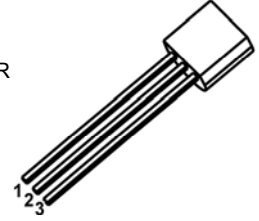
FEATURES

- High Voltage
- Complement to BC556,BC557,BC558

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

TO - 92

1. COLLECTOR
2. BASE
3. EMITTER



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	BC546	6	V
		BC547	6	V
		BC548	5	V
I _C	Collector Current-Continuous	0.1	A	
P _C	Collector Power Dissipation	625	mW	
R _{θJA}	Thermal Resistance from Junction to Ambient	200	°C/W	
T _j	Junction Temperature	150	°C	
T _{stg}	Storage Temperature	-55~+150	°C	

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	BC546	V _{(BR)EBO}	I _E =10μA, I _C =0	6			V
	BC547			6			
	BC548			5			
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