



# TIGER ELECTRONIC CO.,LTD

## TO-92 Plastic-Encapsulate Transistors

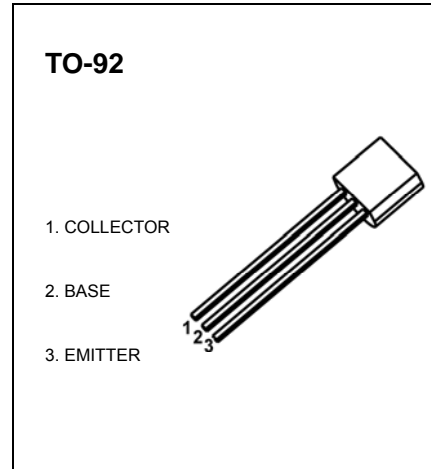
### BC546/BC547/BC548 TRANSISTOR (NPN)

#### FEATURES

- High Voltage
- Complement to BC556,BC557,BC558

#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit		
V <sub>CBO</sub>	Collector-Base Voltage	BC546 BC547 BC548	80 50 30	V	
	V <sub>CEO</sub>	Collector-Emitter Voltage	BC546 BC547 BC548		65 45 30
		V <sub>EBO</sub>	Emitter-Base Voltage		6
I <sub>C</sub>		Collector Current -Continuous	100	mA	
P <sub>D</sub>	Total Device Dissipation	625	mW		
T <sub>J</sub>	Junction Temperature	150	°C		
T <sub>stg</sub>	Storage Temperature	-55-150	°C		



#### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BC546 BC547 BC548	V <sub>CBO</sub>	I <sub>C</sub> = 100μA , I <sub>E</sub> =0	80 50 30	V
Collector-emitter breakdown voltage	BC546 BC547 BC548	V <sub>CEO</sub>	I <sub>C</sub> = 1mA , I <sub>B</sub> =0	65 45 30	V
Emitter-base breakdown voltage	BC546 BC547 BC548	V <sub>EBO</sub>	I <sub>E</sub> = 10μA, I <sub>C</sub> =0	6	V
Collector cut-off current	BC546 BC547 BC548	I <sub>CBO</sub>	V <sub>CB</sub> = 70V, I <sub>E</sub> =0 V <sub>CB</sub> = 50 V, I <sub>E</sub> =0 V <sub>CB</sub> = 30V, I <sub>E</sub> =0	0.1	μA
Collector cut-off current	BC546 BC547 BC548	I <sub>CEO</sub>	V <sub>CE</sub> = 60 V, I <sub>B</sub> =0 V <sub>CE</sub> = 45 V, I <sub>B</sub> =0 V <sub>CE</sub> = 30 V, I <sub>B</sub> =0	0.1	μA
Emitter cut-off current	BC546 BC547 BC548	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0	0.1	μA
DC current gain	BC546 BC547 BC548 BC546A/BC547A/BC548A BC546B/BC547B/BC548B BC546C/BC547C/BC548C	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> = 2mA	110 110 110 110 200 420	800 800 800 220 450 800
Collector-emitter saturation voltage		V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> = 5mA	0.3	V
Base-emitter saturation voltage		V <sub>BE(sat)</sub>	I <sub>C</sub> = 100mA, I <sub>B</sub> =5mA	1.1	V
Transition frequency		f <sub>T</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA f = 100MHz	150	MHz