

# 深圳市晶泰源电子有限公司

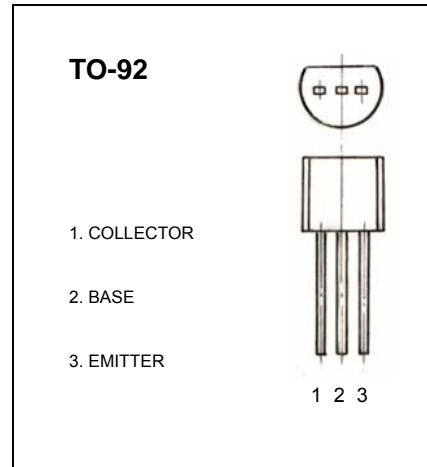
## BC546/BC547/BC548 TRANSISTOR (NPN)

### FEATURES

- High Voltage
- Complement to BC556, BC557, BC558

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

Symbol	Parameter	Value	Units
$V_{CBO}$	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	100	mA
$P_D$	Total Device Dissipation	625	mW
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55-150	°C



### ELECTRICAL CHARACTERISTICS ( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage BC546 BC547 BC548	$V_{CBO}$	$I_C= 100\mu\text{A}, I_E=0$	80		V
			50		
			30		
Collector-emitter breakdown voltage BC546 BC547 BC548	$V_{CEO}$	$I_C= 1\text{mA}, I_B=0$	65		V
			45		
			30		
Emitter-base breakdown voltage	$V_{EBO}$	$I_E= 10\mu\text{A}, I_C=0$	6		V
Collector cut-off current BC546 BC547 BC548	$I_{CBO}$	$V_{CB}= 70\text{V}, I_E=0$ $V_{CB}= 50\text{ V}, I_E=0$ $V_{CB}= 30\text{V}, I_E=0$		0.1	$\mu\text{A}$
Collector cut-off current BC546 BC547 BC548	$I_{CEO}$	$V_{CE}= 60\text{ V}, I_B=0$ $V_{CE}= 45\text{ V}, I_B=0$ $V_{CE}= 30\text{ V}, I_B=0$		0.1	$\mu\text{A}$
Emitter cut-off current BC546 BC547 BC548	$I_{EBO}$	$V_{EB}= 5\text{V}, I_C=0$		0.1	$\mu\text{A}$
DC current gain BC546 BC547 BC548 BC546A/BC547A/BC548A BC546B/BC547B/BC548B BC546C/BC547C/BC548C	$h_{FE}$	$V_{CE}=5\text{V}, I_C= 2\text{mA}$	110	800	
			110	800	
			110	800	
			110	220	
			200	450	
			420	800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B= 5\text{mA}$		0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C= 100\text{mA}, I_B=5\text{mA}$		1.1	V
Transition frequency	$f_T$	$V_{CE}= 5\text{V}, I_C= 10\text{mA}$ $f = 100\text{MHz}$	150		MHz