



## TRANSISTOR (PNP)

### FEATURES

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

### SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

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

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage		
	BC856	-80	V
	BC857	-50	
	BC858	-30	
V <sub>CEO</sub>	Collector-Emitter Voltage		
	BC856	-65	V
	BC857	-45	
	BC858	-30	
V <sub>EB0</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current –Continuous	-0.1	A
P <sub>C</sub>	Collector Power Dissipation	200	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-65-150	°C

### DEVICE MARKING

BC856A=3A; BC856B=3B;  
BC857A=3E; BC857B=3F; BC857C=3G;  
BC858A=3J; BC858B=3K; BC858C=3L



**BC856A,B**  
**BC857A, B,C**  
**BC858A, B,C**

**ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	BC856 BC857 BC858	$V_{CBO}$	$I_C = -10\mu A, I_E = 0$	-80 -50 -30	V
Collector-emitter breakdown voltage	BC856 BC857 BC858	$V_{CEO}$	$I_C = -10mA, I_B = 0$	-65 -45 -30	V
Emitter-base breakdown voltage		$V_{EBO}$	$I_E = -1\mu A, I_C = 0$	-5	V
Collector cut-off current	BC856 BC857 BC858	$I_{CBO}$	$V_{CB} = -70V, I_E = 0$ $V_{CB} = -45V, I_E = 0$ $V_{CB} = -25V, I_E = 0$	-0.1	$\mu A$
Collector cut-off current	BC856 BC857 BC858	$I_{CEO}$	$V_{CE} = -60V, I_B = 0$ $V_{CE} = -40V, I_B = 0$ $V_{CE} = -25V, I_B = 0$	-0.1	$\mu A$
Emitter cut-off current		$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	-0.1	$\mu A$
DC current gain	BC856A, 857A,858A BC856B, 857B,858B BC857C,BC858C	$h_{FE}$	$V_{CE} = -5V, I_C = -2mA$	125 220 420	250 475 800
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = -100mA, I_B = -5mA$	-0.5	V
Base-emitter saturation voltage		$V_{BE(sat)}$	$I_C = -100mA, I_B = -5mA$	-1.1	V
Transition frequency		$f_T$	$V_{CE} = -5V, I_C = -10mA$ $f = 100MHz$	100	MHz
Collector capacitance		$C_{ob}$	$V_{CB} = -10V, f = 1MHz$	4.5	pF



# Typical Characteristics





