



## SOT-23 Plastic-Encapsulate Transistors

**BC856A, B** TRANSISTOR (PNP)

**BC857A, B,C**

**BC858A, B,C**

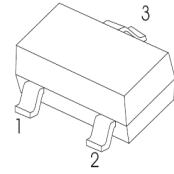
### FEATURES

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

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

Symbol	Parameter	Value	Unit
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>EBO</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

### SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

### DEVICE MARKING

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

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BC856 BC857 BC858	V <sub>CBO</sub>	I <sub>C</sub> = -10μA, I <sub>E</sub> =0	-80 -50 -30		V
Collector-emitter breakdown voltage BC856 BC857 BC858	V <sub>CEO</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-65 -45 -30		V
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = -1μA, I <sub>C</sub> =0	-5		V
Collector cut-off current BC856 BC857 BC858	I <sub>CBO</sub>	V <sub>CB</sub> = -70 V, I <sub>E</sub> =0 V <sub>CB</sub> = -45 V, I <sub>E</sub> =0 V <sub>CB</sub> = -25 V, I <sub>E</sub> =0		-0.1	μA
Collector cut-off current BC856 BC857 BC858	I <sub>CEO</sub>	V <sub>CE</sub> = -60 V, I <sub>B</sub> =0 V <sub>CE</sub> = -40 V, I <sub>B</sub> =0 V <sub>CE</sub> = -25 V, I <sub>B</sub> =0		-0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -5 V, I <sub>C</sub> =0		-0.1	μA
DC current gain BC856A, 857A,858A BC856B, 857B,858B BC857C,BC858C	h <sub>FE</sub>	V <sub>CE</sub> = -5V,I <sub>C</sub> = -2mA	125 220 420	250 475 800	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-100mA,I <sub>B</sub> = -5 mA		-0.5	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> = -5 V, I <sub>C</sub> = -10mA f=100MHz	100		MHz
Collector capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, f=1MHz		4.5	pF