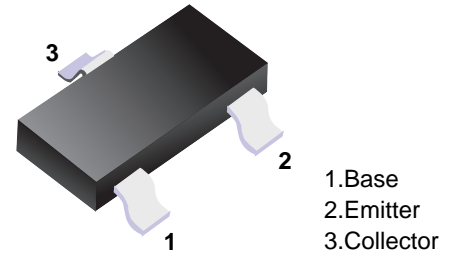


■ PNP Transistors



■ Simplified outline(SOT-23)

■ Features

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

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	BC856	BC857	BC858	Unit
Collector - Base Voltage	V <sub>CB0</sub>	-80	-50	-30	V
Collector - Emitter Voltage	V <sub>CE0</sub>	-65	-45	-30	
Emitter - Base Voltage	V <sub>EB0</sub>	-5			
Collector Current - Continuous	I <sub>c</sub>	-100			mA
Collector Power Dissipation	P <sub>c</sub>	200			mW
Junction Temperature	T <sub>J</sub>	150			°C
Storage Temperature range	T <sub>stg</sub>	-55 to 150			

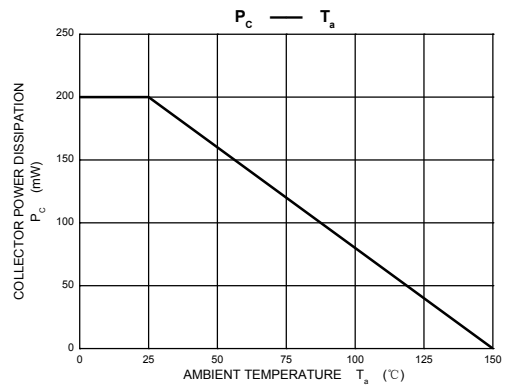
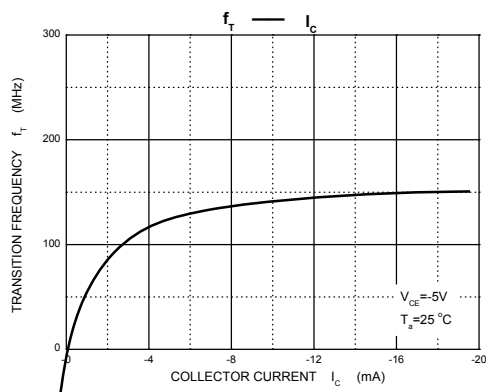
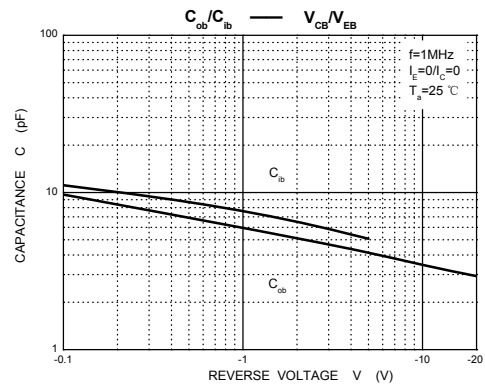
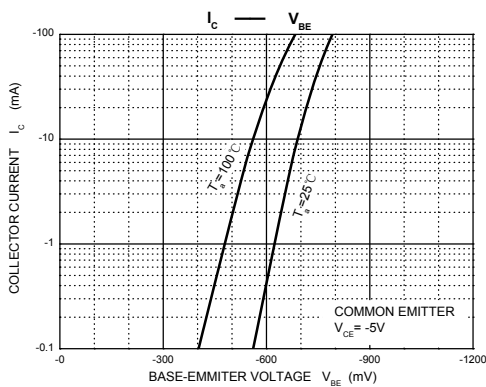
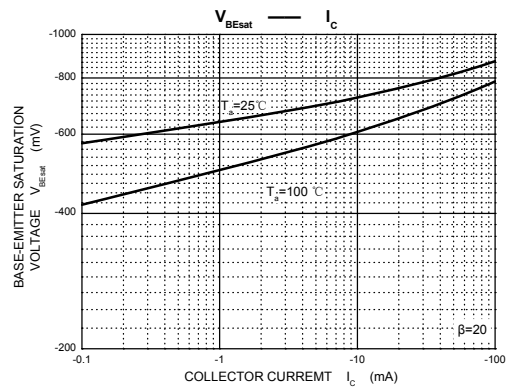
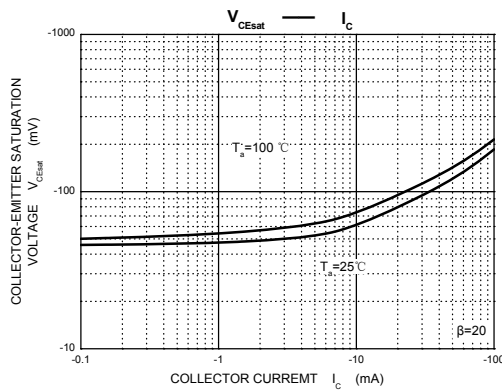
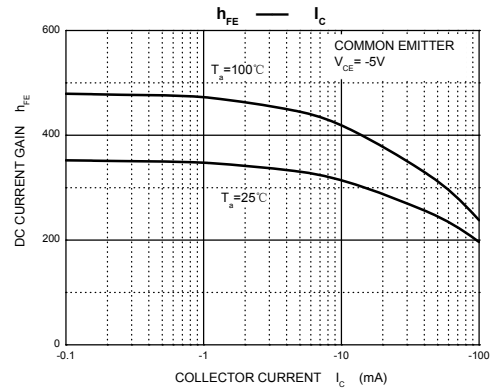
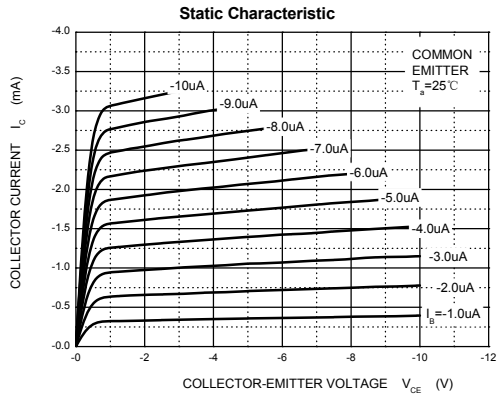
**■ Electrical Characteristics Ta = 25°C**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit	
Collector- base breakdown voltage	BC856	$I_C = -100 \mu A, I_E = 0$	-80			V	
	BC857		-50				
	BC858		-30				
Collector- emitter breakdown voltage	BC856	$I_C = -1mA, I_B = 0$	-65			V	
	BC857		-45				
	BC858		-30				
Emitter - base breakdown voltage	$V_{EBO}$	$I_E = -100 \mu A, I_C = 0$	-5				
Collector-base cut-off current	BC856	$I_{CBO}$	$V_{CB} = -70V, I_E = 0$			nA	
	BC857		$V_{CB} = -45V, I_E = 0$				
	BC858		$V_{CB} = -25V, I_E = 0$				
Collector- emittercut-off current	BC856	$I_{CEO}$	$V_{CE} = -55V, I_E = 0$			uA	
	BC857		$V_{CE} = -40V, I_E = 0$				
	BC858		$V_{CE} = -25V, I_E = 0$				
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-100	nA	
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		
DC current gain	BC856A,857A,858A	$h_{FE}$	$V_{CE} = -5V, I_C = -2mA$	125		250	
	BC856B,857B,858B			220		475	
	BC856C,857C,858C			420		800	
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, f = 1MHz$			4.5	pF	
Transition frequency	$f_T$	$V_{CE} = -5V, I_C = -10mA, f = 100MHz$	100			MHz	

**■ Classification of hfe**

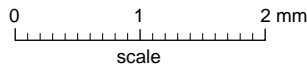
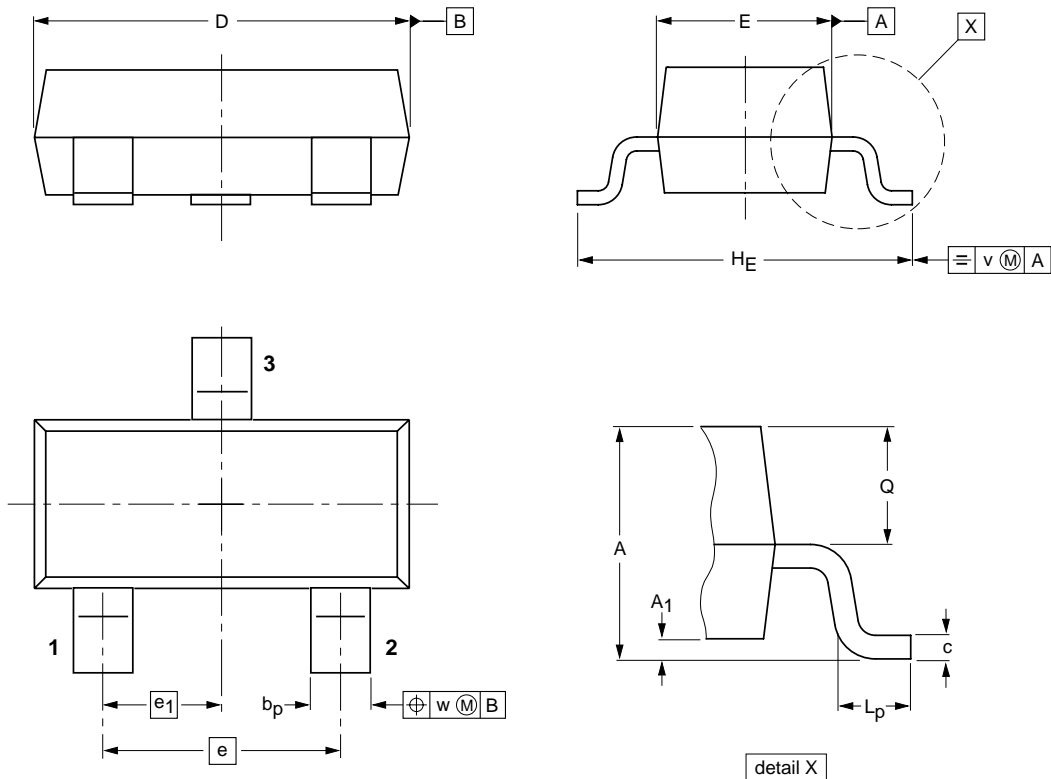
Type	BC856A	BC856B	BC856C	BC857A	BC857B	BC857C	BC858A	BC858B	BC858C
Range	125-250	220-475	420-800	125-250	220-475	420-800	125-250	220-475	420-800
Marking	3A	3B	3C	3E	3F	3G	3J	3K	3L

■ Typical Characteristics



**Package Outline**

**SOT-23**



**DIMENSIONS (mm are the original dimensions)**

UNIT	A	A <sub>1</sub> max.	b <sub>p</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1