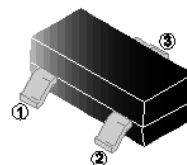


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Ideally suited for automatic insertion
- For switching and AF amplifier applications

**SOT-23**



## MARKING

<b>Part Number</b>	BC856A-C	BC856B-C	-
<b>Marking</b>	3A	3B	-
<b>Part Number</b>	BC857A-C	BC857B-C	BC857C-C
<b>Marking</b>	3E	3F	3G
<b>Part Number</b>	BC858A-C	BC858B-C	BC858C-C
<b>Marking</b>	3J	3K	3L

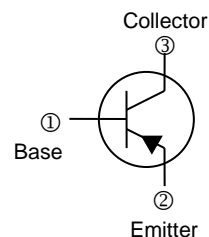
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

## ORDER INFORMATION

Part Number	Type
BC856-□-C	Lead (Pb)-free and Halogen-free
BC857-□-C	
BC858-□-C	

\*□=h<sub>FE</sub> Rank



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

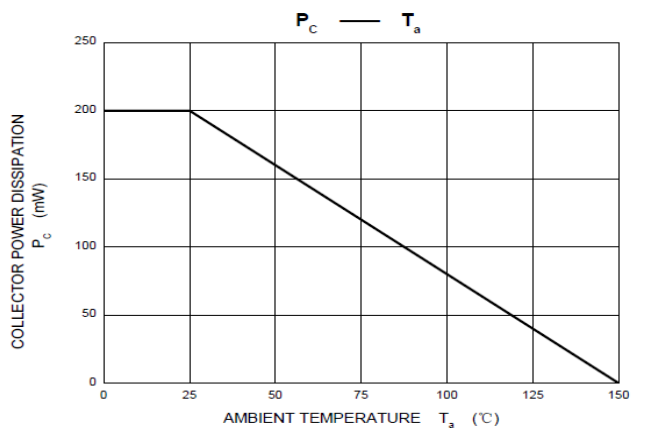
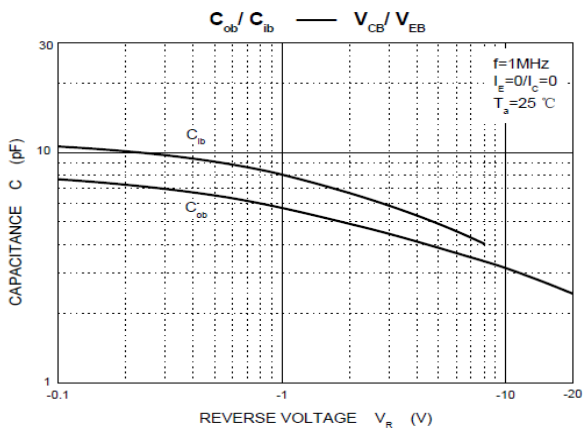
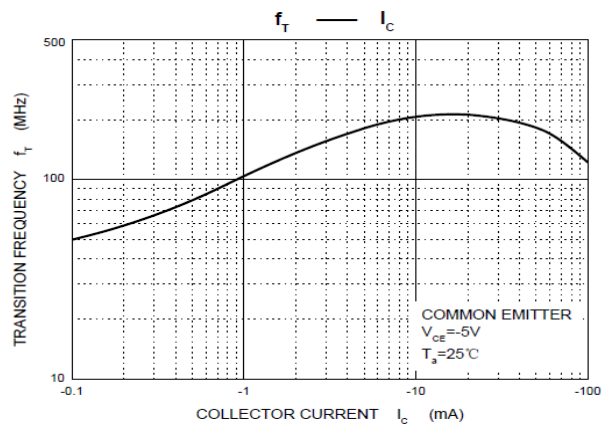
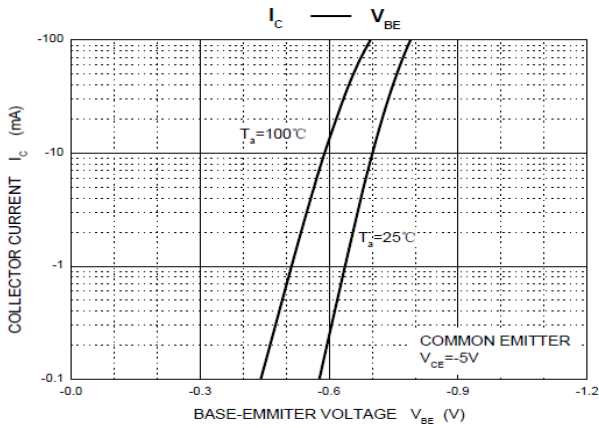
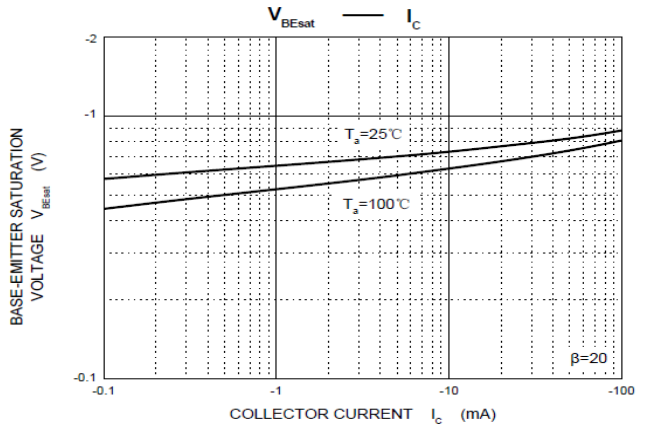
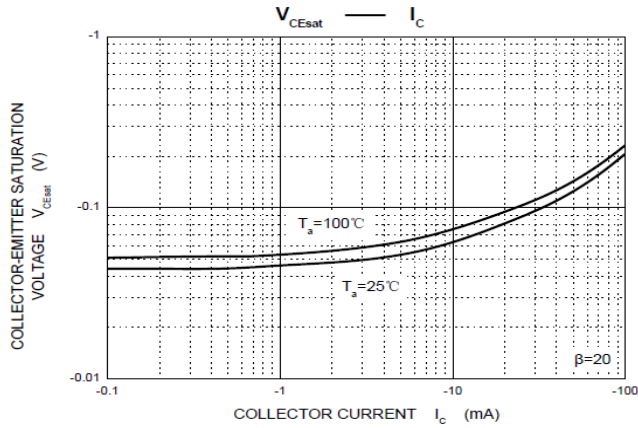
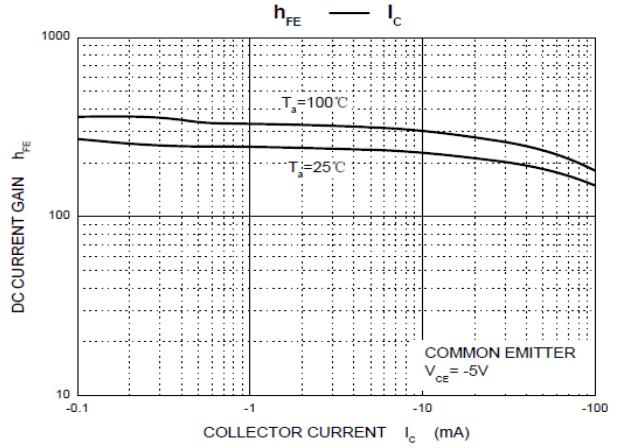
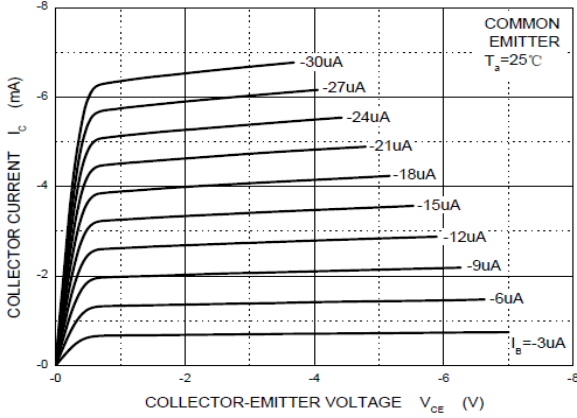
Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V <sub>CBO</sub>	BC856	-80
		BC857	-50
		BC858	-30
Collector-Emitter Voltage	V <sub>CEO</sub>	BC856	-65
		BC857	-45
		BC858	-30
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current-Continuous	I <sub>C</sub>	-0.1	A
Collector Power Dissipation	P <sub>C</sub>	200	mW
Thermal Resistance, Junction-Ambient	R <sub>θJA</sub>	625	°C/W
Junction, Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150	°C

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

Parameter		Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	BC856	$V_{CBO}$	-80	-	-	V	$I_C = -10\mu\text{A}, I_E = 0$
	BC857		-50	-	-		
	BC858		-30	-	-		
Collector-Emitter Breakdown Voltage	BC856	$V_{CEO}$	-65	-	-	V	$I_C = -10\text{mA}, I_E = 0$
	BC857		-45	-	-		
	BC858		-30	-	-		
Emitter-Base Breakdown Voltage		$V_{EBO}$	-5	-	-	V	$I_E = -1\mu\text{A}, I_C = 0$
Collector-Base Cut-off Current	BC856	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -70\text{V}, I_E = 0$
	BC857		-	-	-0.1		$V_{CB} = -45\text{V}, I_E = 0$
	BC858		-	-	-0.1		$V_{CB} = -25\text{V}, I_E = 0$
Emitter-Base Cut-off Current		$I_{EBO}$	-	-	-0.1	$\mu\text{A}$	$V_{EB} = -5\text{V}, I_C = 0$
DC Current Gain	BC856A, BC857A, BC858A	$h_{FE}$	125	-	250		$V_{CE} = -5\text{V}, I_C = -2\text{mA}$
	BC856B, BC857B, BC858B		220	-	475		
	BC857C, BC858C		420	-	800		
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -100\text{mA}, I_B = -5\text{mA}$
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	-	-	-1.1	V	$I_C = -100\text{mA}, I_B = -5\text{mA}$
Transition Frequency		$f_T$	-	100	-	MHz	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$
Collector Capacitance		$C_{ob}$	-	4.5	-	pF	$V_{CB} = -10\text{V}, f = 1\text{MHz}$

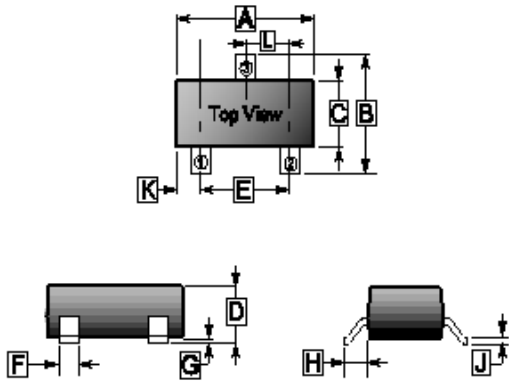
**CHARACTERISTIC CURVES**

Static Characteristic



**PACKAGE OUTLINE DIMENSIONS**

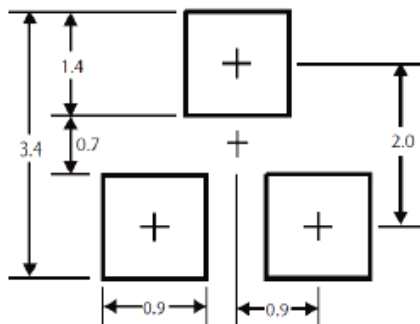
**SOT-23**



REF.	Millimeter	
	Min.	Max.
A	2.65	3.10
B	2.10	3.00
C	1.10	1.80
D	0.89	1.40
E	1.70	2.30
F	0.28	0.55
G	-	0.18
H	0.55 REF.	
J	0.05	0.26
K	0.60 REF.	
L	0.95 TYP.	

**MOUNTING PAD LAYOUT**

**SOT-23**



\*Dimensions in millimeters