



**BC856 BC857 BC858 Transistor(PNP)**

**Feature**

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

**Marking:**

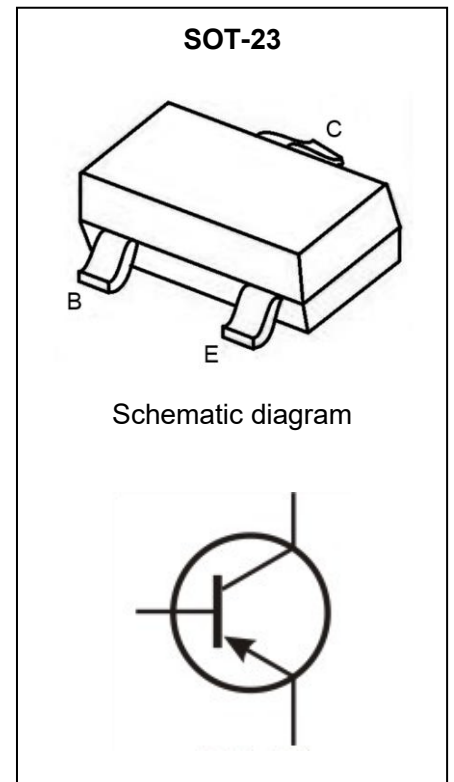
**BC856A=3A;BC856B=3B;**

**BC857A=3E;BC857B=3F;BC857C=3G;**

**BC858A=3J;BC858B=3K;BC858C=3L**

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CB0</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>	0.2	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>STG</sub>	-55~ +150	°C

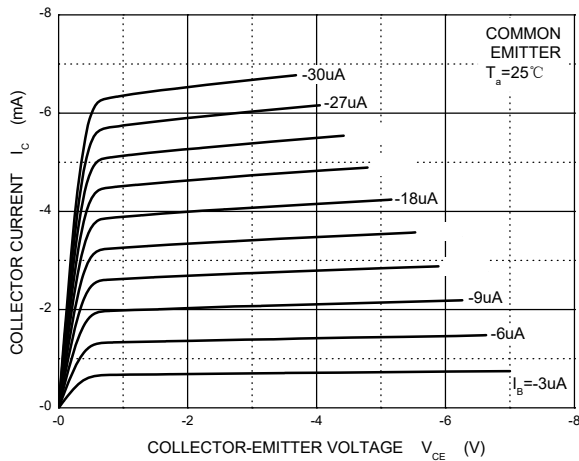


## ELECTRICAL CHARACTERISTICS( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

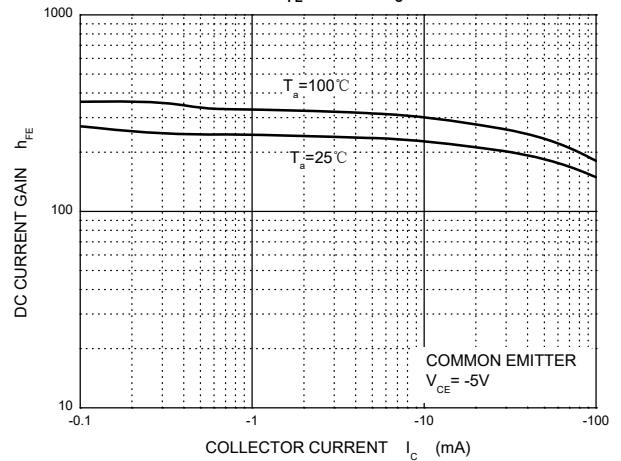
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>Collector-base breakdown voltage</b>						
BC856	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}, I_E=0$	-80			V
BC857			-50			
BC858			-30			
<b>Collector-emitter breakdown voltage</b>						
BC856	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-65			V
BC857			-45			
BC858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

**Typical Characteristics**

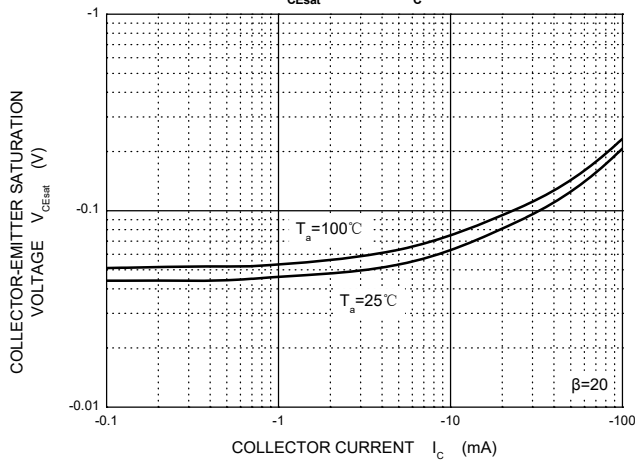
**Static Characteristic**



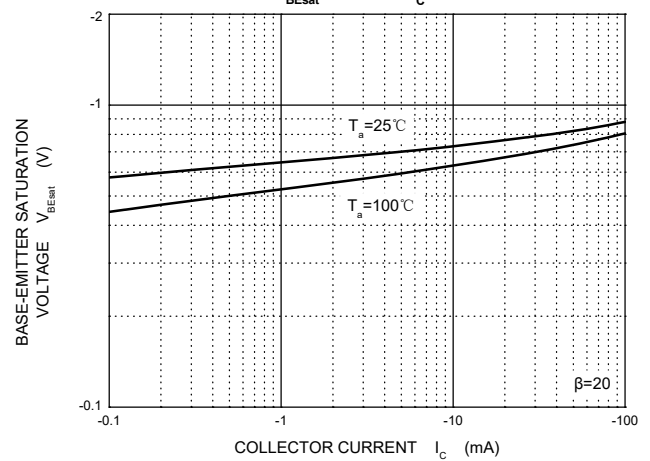
$h_{FE}$  —  $I_c$



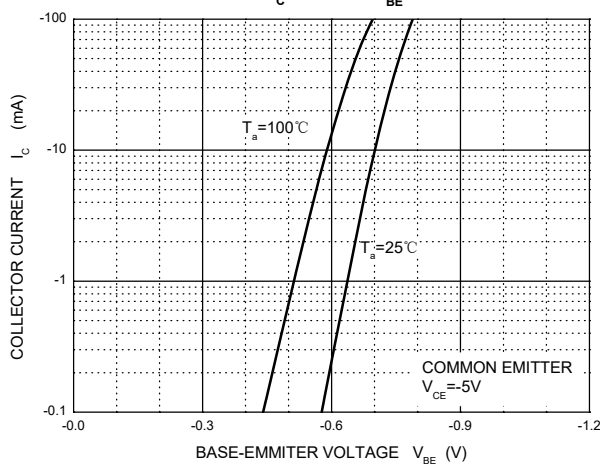
$V_{CEsat}$  —  $I_c$



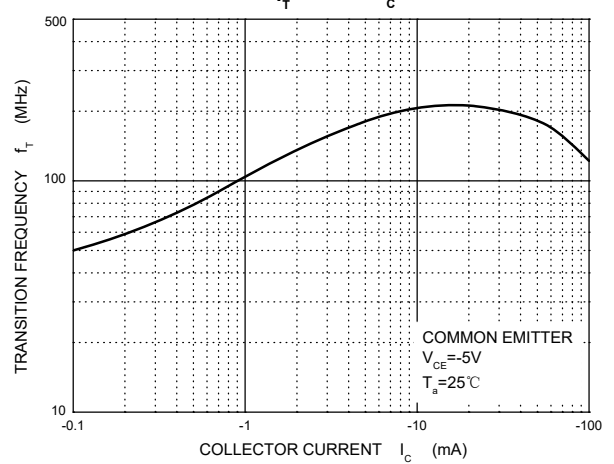
$V_{BEsat}$  —  $I_c$



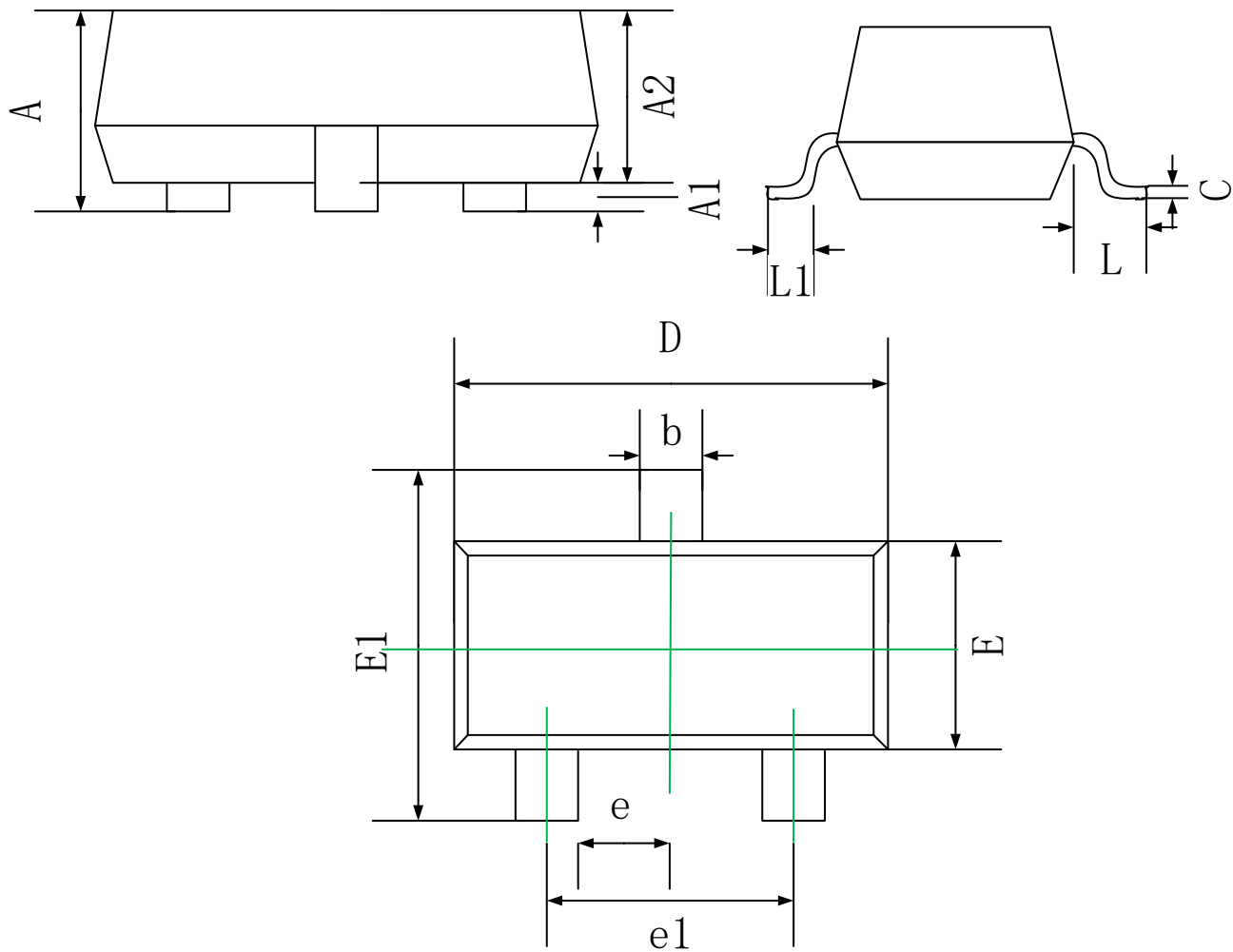
$I_c$  —  $V_{BE}$



$f_T$  —  $I_c$



## SOT-23 Package Information



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50