



# HBC856

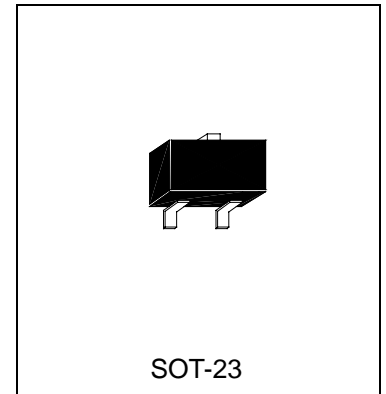
PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HBC856 is designed for switching and AF amplifier amplification suitable for automatic insertion in thick and thin-film circuits.

## Absolute Maximum Ratings

- Maximum Temperatures  
 Storage Temperature ..... -55 to +150 °C  
 Junction Temperature..... +150 °C
- Maximum Power Dissipation  
 Total Power Dissipation (Ta=25°C) ..... 225 mW
- Maximum Voltages and Currents (Ta=25°C)  
 VCBO Collector to Base Voltage ..... -80 V  
 VCEO Collector to Emitter Voltage..... -65 V  
 VEBO Emitter to Base Voltage..... -5 V  
 IC Collector Current..... -100 mA



## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-80	-	-	V	IC=-100uA
BVCEO	-65	-	-	V	IC=-1mA
VEBO	-5	-	-	V	IE=-10uA
ICBO	-	-	-15	nA	VCB=-30V
*VCE(sat)1	-	-75	-300	mV	IC=-10mA, IB=-0.5mA
*VCE(sat)2	-	-250	-650	mV	IC=-100mA, IB=-5mA
*VBE(sat)1	-	-700	-	mV	IC=-10mA, IB=-0.5mA
*VBE(sat)2	-	-850	-	mV	IC=-100mA, IB=-5mA
VBE(on)1	-600	-	-750	mV	VCE=-5V, IC=-2mA
VBE(on)2	-	-	-820	mV	VCE=-5V, IC=-10mA
*hFE	75	-	800		VCE=-5V, IC=-2mA
fT	-	150	-	MHz	VCE=-5V, IC=-10mA
Cob	-	4.5	-	pF	VCB=-10V, f=1MHz

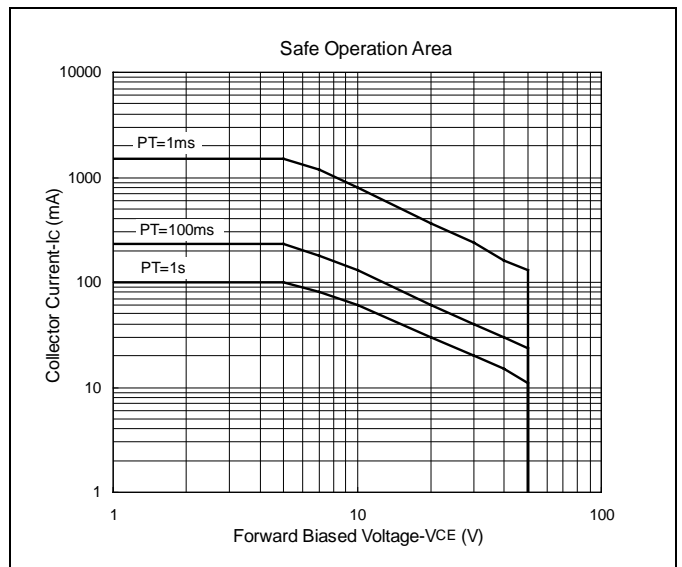
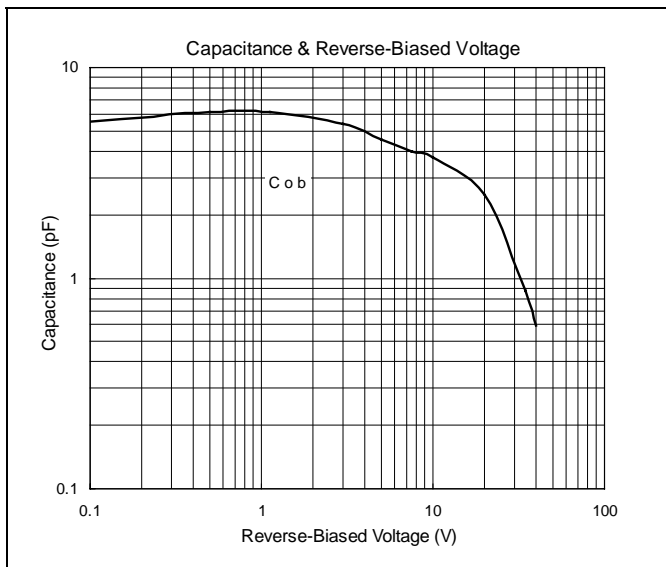
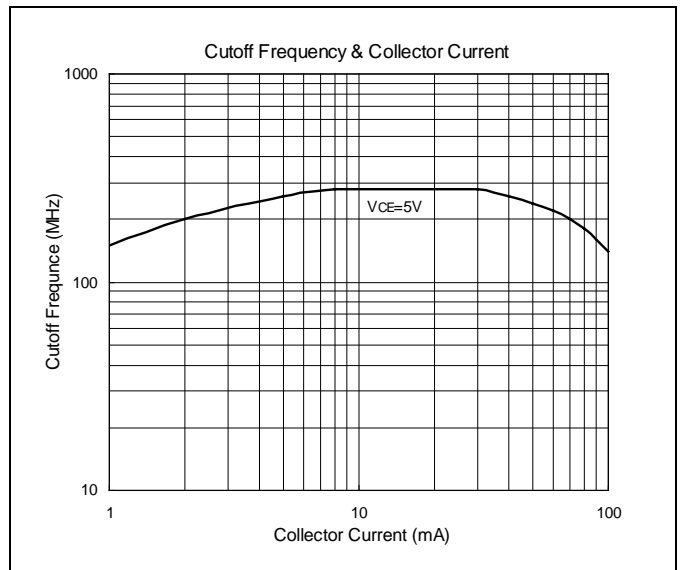
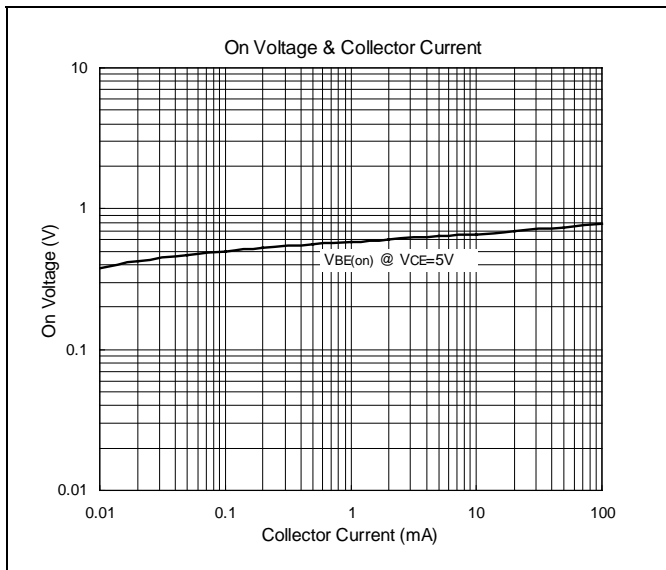
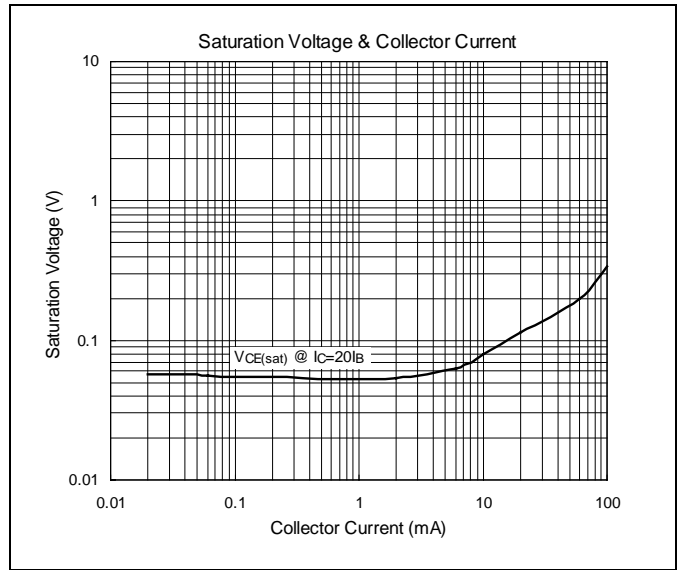
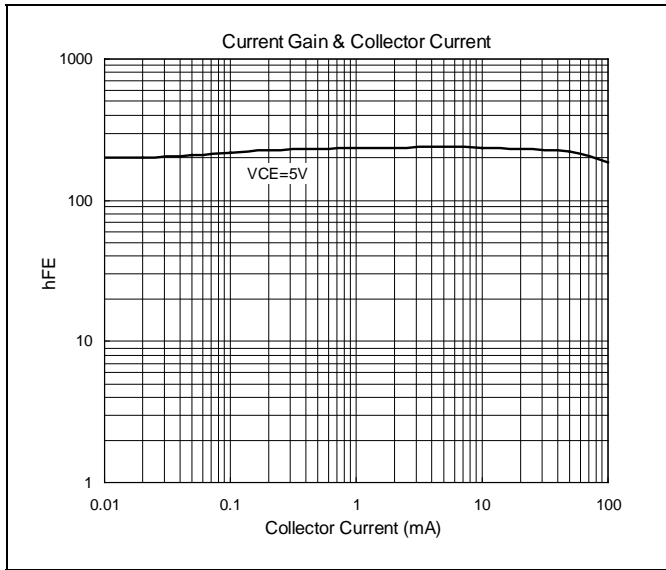
\*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of hFE

Rank	A	B	C	Normal
hFE	125-250	220-475	420-800	75-475

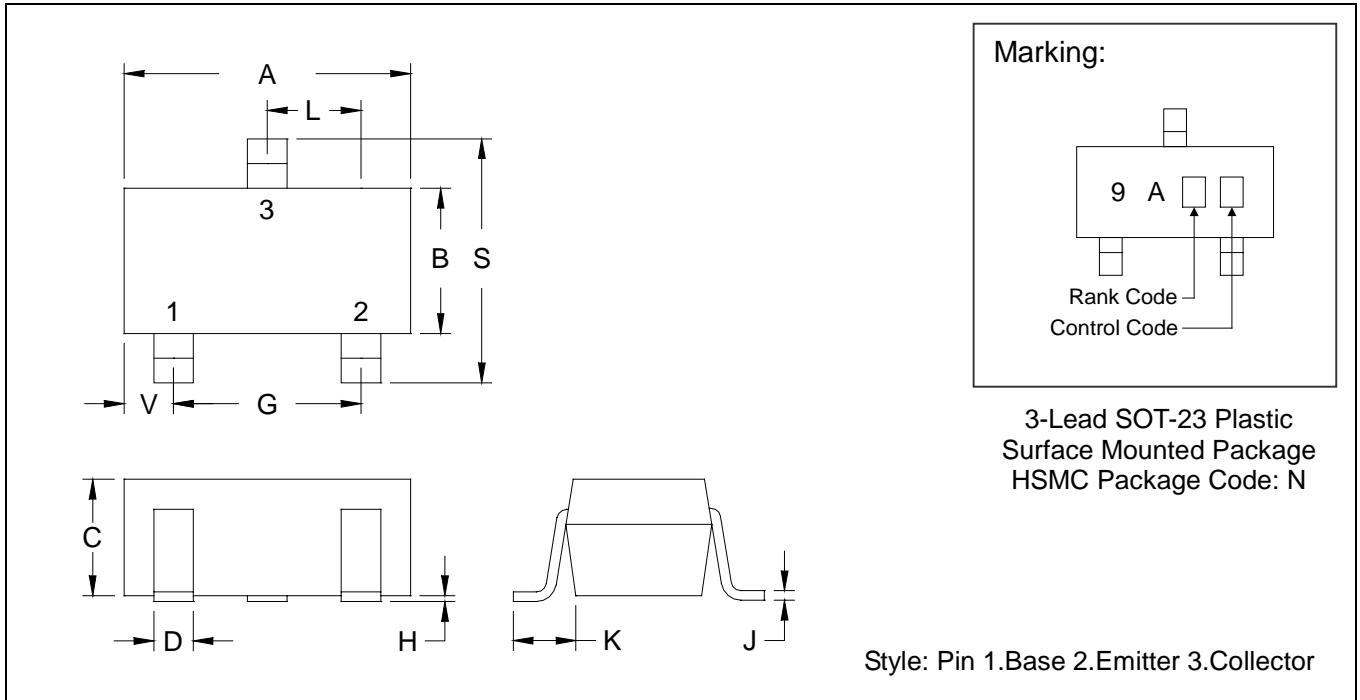


### Characteristics Curve





### SOT-23 Dimension



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

- Notes: 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.  
 2.Controlling dimension: millimeters.  
 3.Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.  
 4.If there is any question with packing specification or packing method, please contact your local HSMC sales office.

**Material:**

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

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