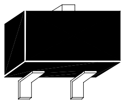
HBC846

NPN EPITAXIAL PLANAR TRANSISTOR



SOT-23

Description

The HBC846 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.. 6 V
  IC Collector Current .... 100 mA

Characteristics (Ta=25°C)

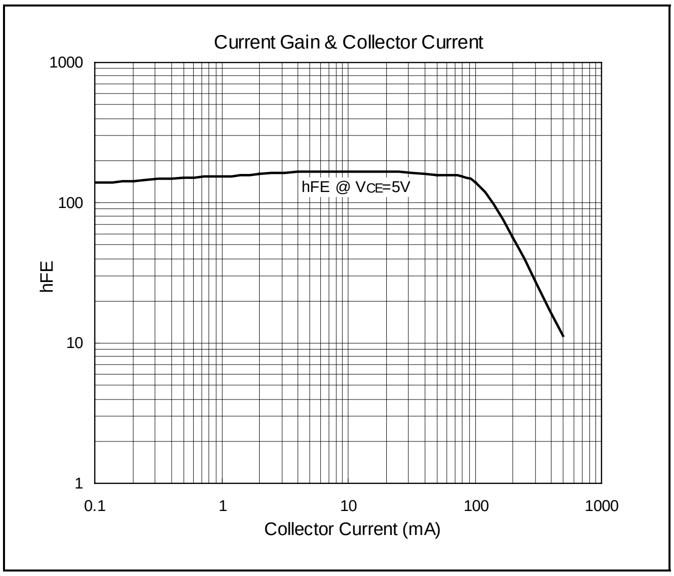
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	80	-	-	V	IC=100uA
BVCEO	65	-	-	V	IC=1mA
BVEBO	6	-	-	V	IE=10uA
ICBO	-	-	15	nA	VCB=30V
*VCE(sat)1	-	90	250	mV	IC=10mA, IB=0.5mA
*VCE(sat)2	-	200	600	mV	IC=100mA, IB=5mA
*VBE(sat)1	-	700	-	mV	IC=10mA, IB=0.5mA
*VBE(sat)2	-	900	-	mV	IC=100mA, IB=5mA
VBE(on)1	580	-	700	mV	VCE=5V, IC=2mA
VBE(on)2	-	-	770	mV	VCE=5V, IC=10mA
*hFE	110	-	800		VCE=5V, IC=2mA
fT	-	300	-	MHz	VCE=5V, IC=10mA
Cob	-	3.5	6	pF	VCB=10V, f=1MHz, IE=0

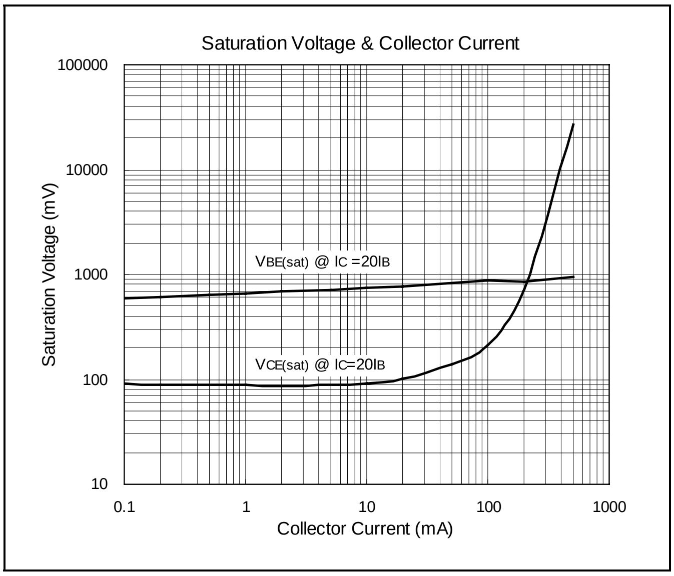
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

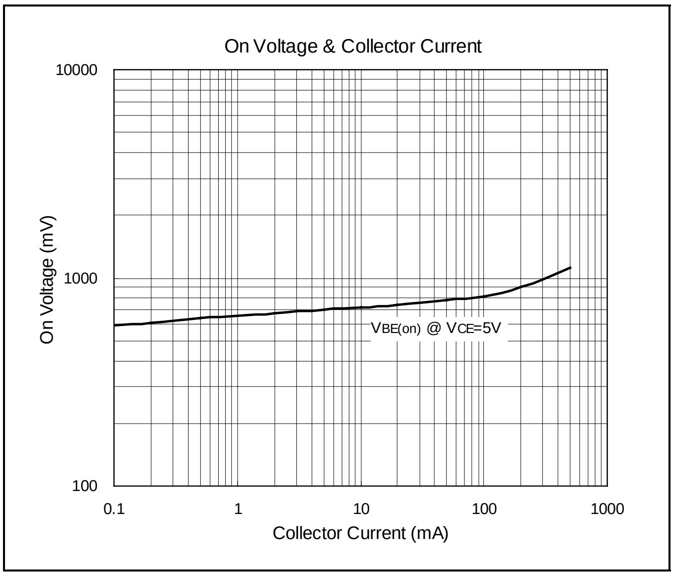
Classification Of hFE

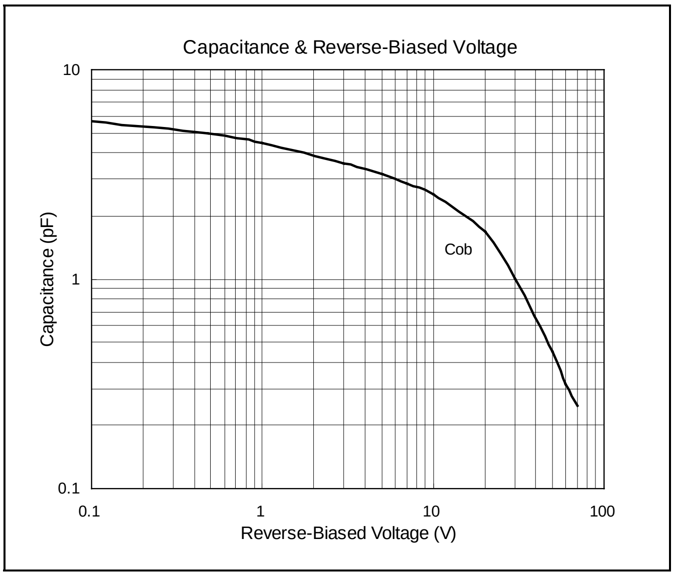
Rank	A	B	C
hFE	110-220	200-450	420-800

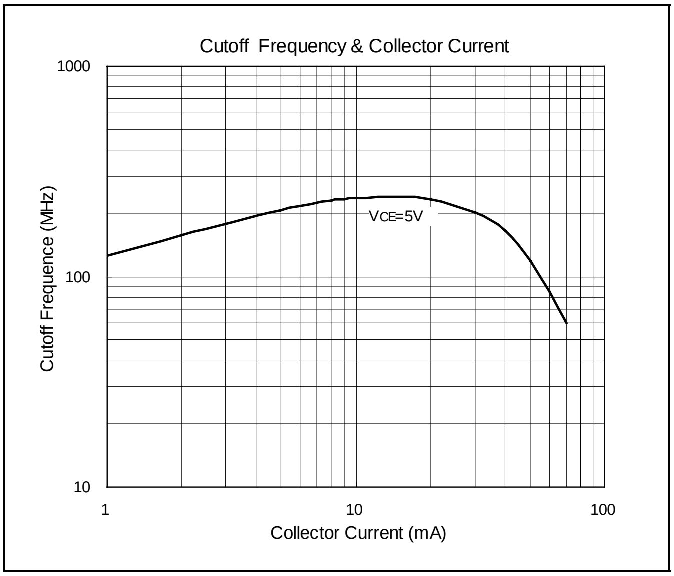
Characteristics Curve

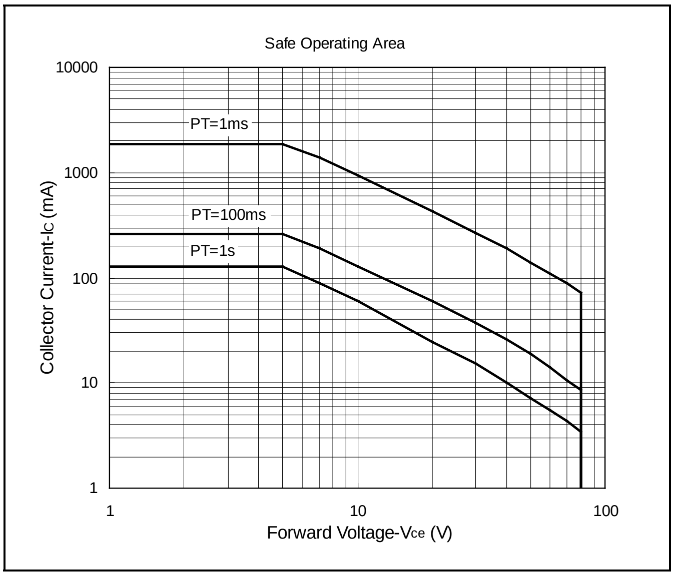




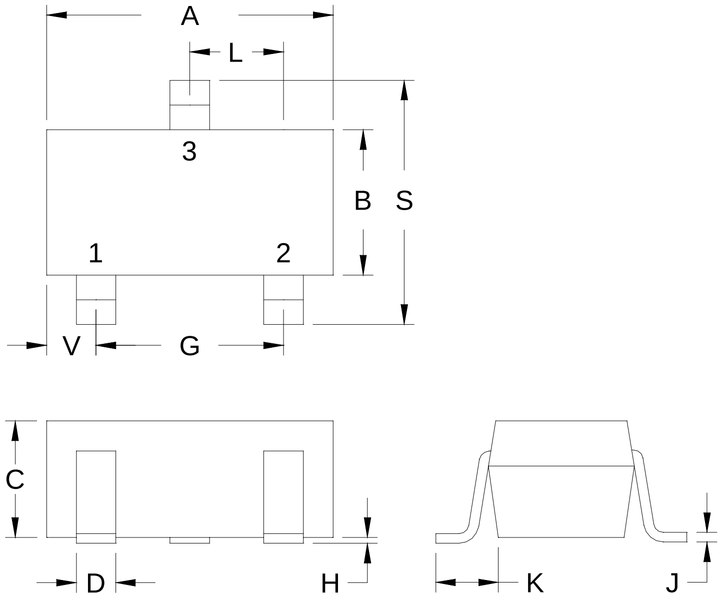


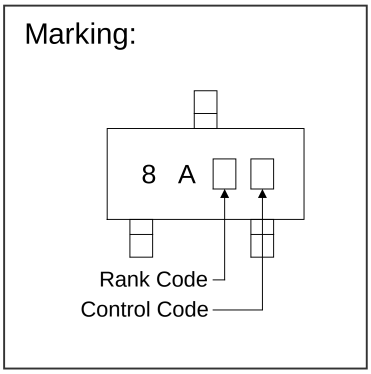






SOT-23 Dimension





3-Lead SOT-23 Plastic
Surface Mounted Package
HSMC Package Code: N

Style: Pin 1.Base 2.Emitter 3.Collector

*: 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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