

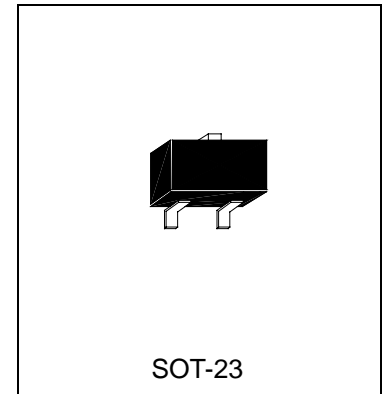


HBC846

NPN EPITAXIAL PLANAR TRANSISTOR

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

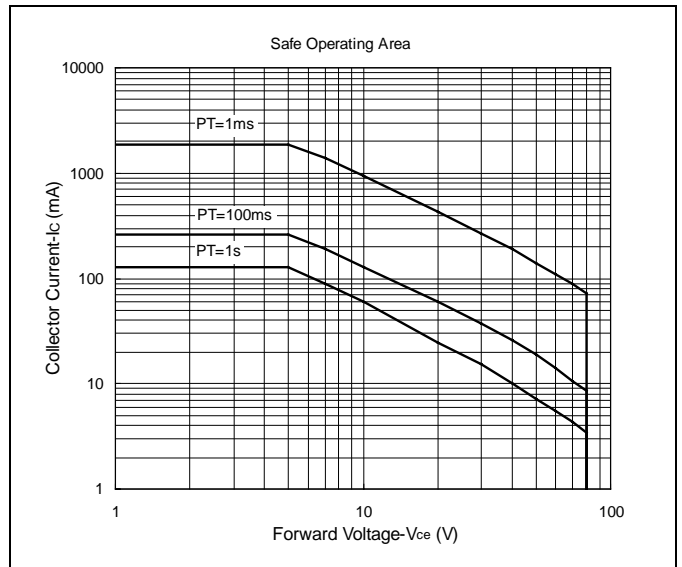
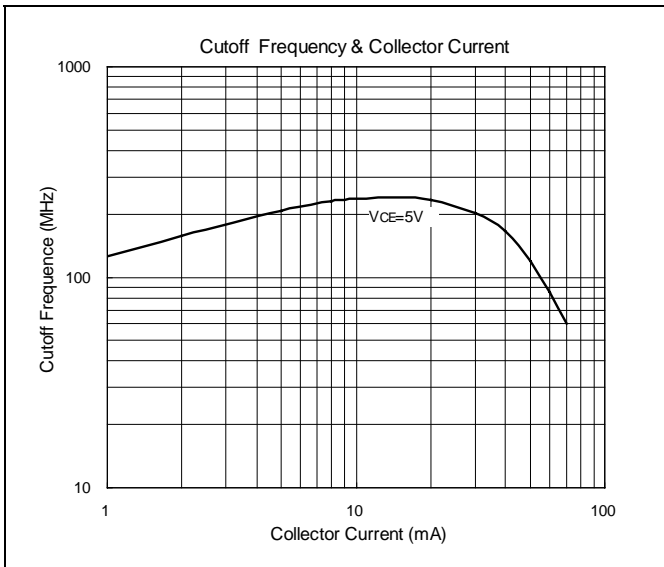
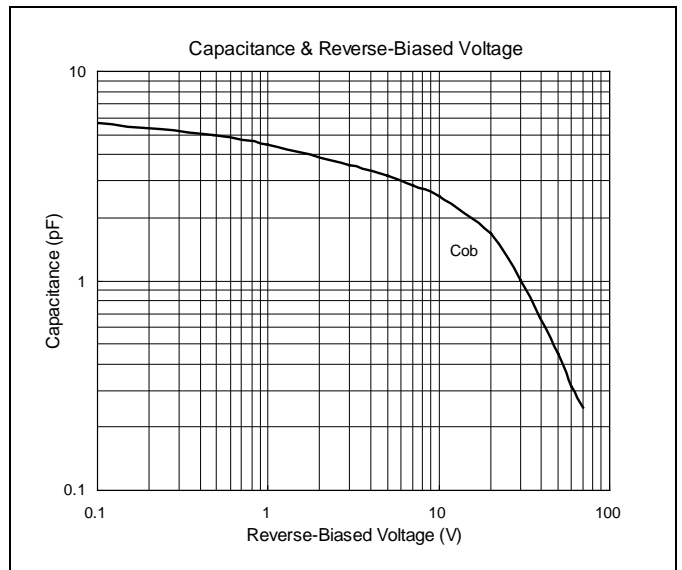
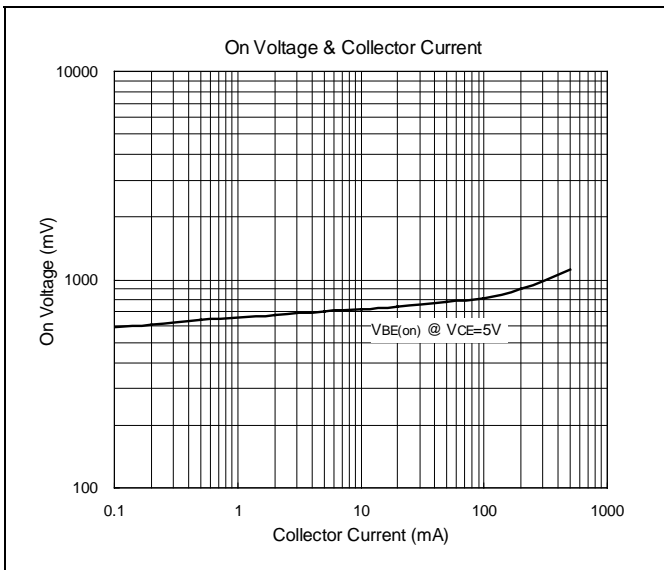
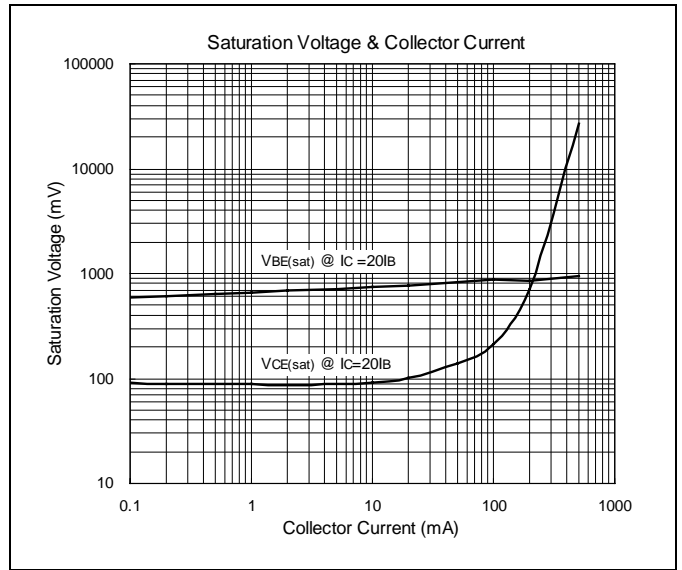
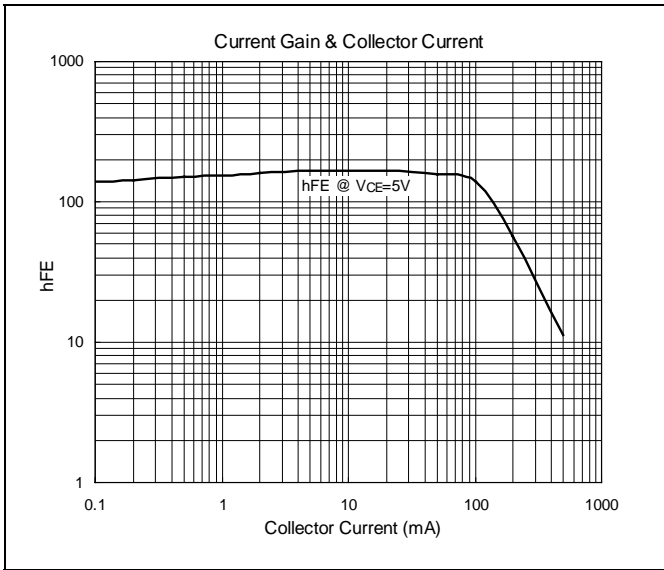
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

Classification Of hFE

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

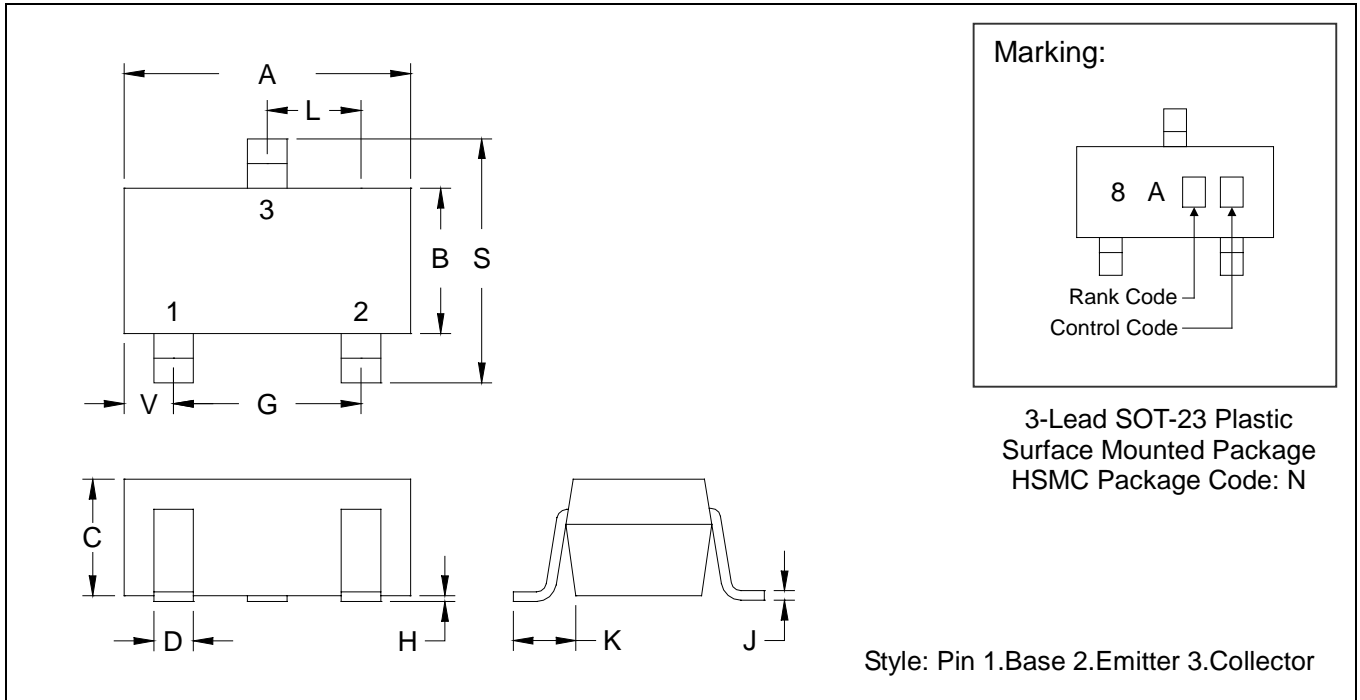


Characteristics Curve





SOT-23 Dimension



*: 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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