

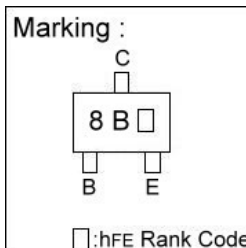
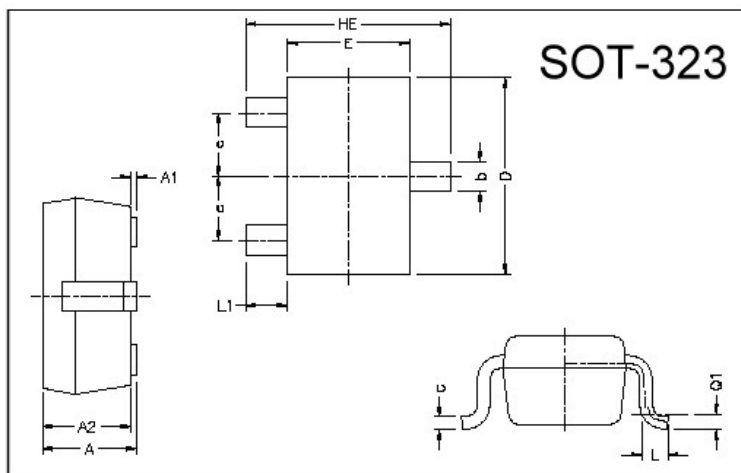
## GSBC847

### NPN EPITAXIAL PLANAR TRANSISTOR

#### Description

The GSBC847 is designed for switching and AF amplifier application suitable for automatic insertion in thick and thin-film circuits.

#### Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.80	1.10	L1	0.42 REF.	
A1	0	0.10	L	0.15	0.35
A2	0.80	1.00	b	0.25	0.40
D	1.80	2.20	c	0.10	0.25
E	1.15	1.35	e	0.65 REF.	
HE	1.80	2.40	Q1	0.15 BSC.	

#### Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	T <sub>j</sub>	+150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ +150	°C
Collector to Base Voltage	VCBO	50	V
Collector to Emitter Voltage	VCEO	45	V
Emitter to Base Voltage	VEBO	6	V
Collector Current	I <sub>C</sub>	100	mA
Total Power Dissipation	PD	225	mW

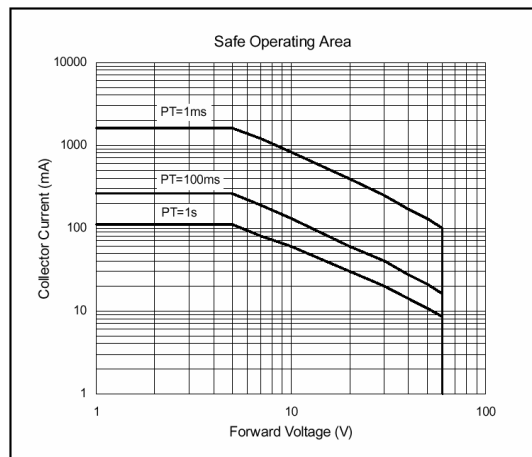
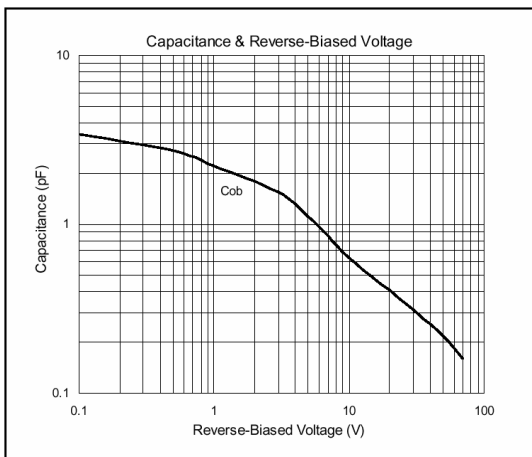
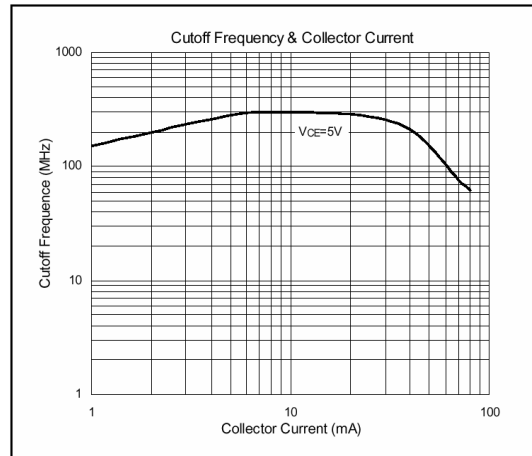
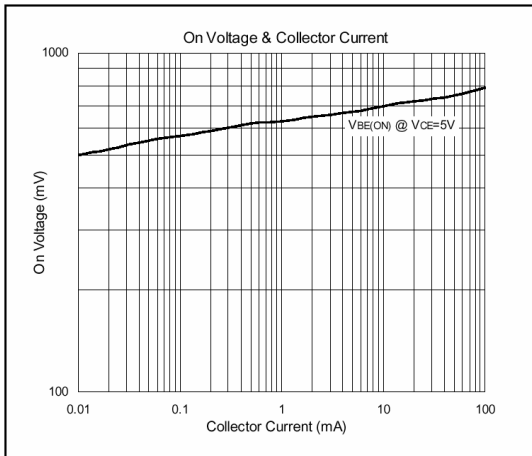
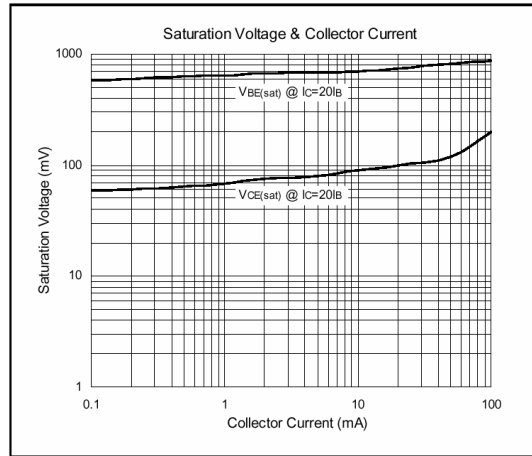
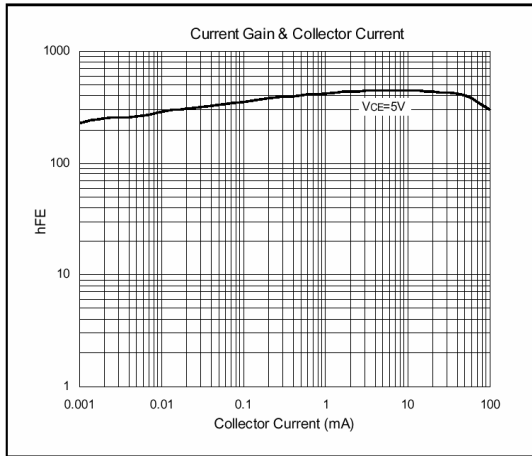
#### Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	50	-	-	V	I <sub>C</sub> =100uA
BVCEO	45	-	-	V	I <sub>C</sub> =1mA
BVEBO	6	-	-	V	I <sub>E</sub> =10uA
ICBO	-	-	15	nA	V <sub>CB</sub> =30V
VCE(sat)1	-	90	250	mV	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA
VCE(sat)2	-	200	600	mV	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA
VBE(sat)1	-	700	-	mV	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA
VBE(sat)2	-	900	-	mV	I <sub>C</sub> =100mA, I <sub>B</sub> =5mA
VBE(on)1	580	-	700	mV	V <sub>CE</sub> =5V, I <sub>C</sub> =2mA
VBE(on)2	-	-	770	mV	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA
hFE	110	-	800		V <sub>CE</sub> =5V, I <sub>C</sub> =2mA
f <sub>T</sub>	-	300	-	MHz	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA
C <sub>ob</sub>	-	3.5	6	pF	V <sub>CB</sub> =10V, f=1MHz, I <sub>E</sub> =0A

#### Classification Of hFE

Rank	8BA	8BB	8BC
Range	110 - 220	200 - 450	420 - 800

## Characteristics Curve



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