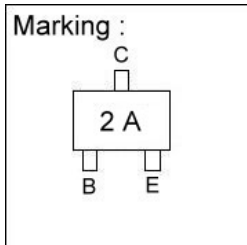
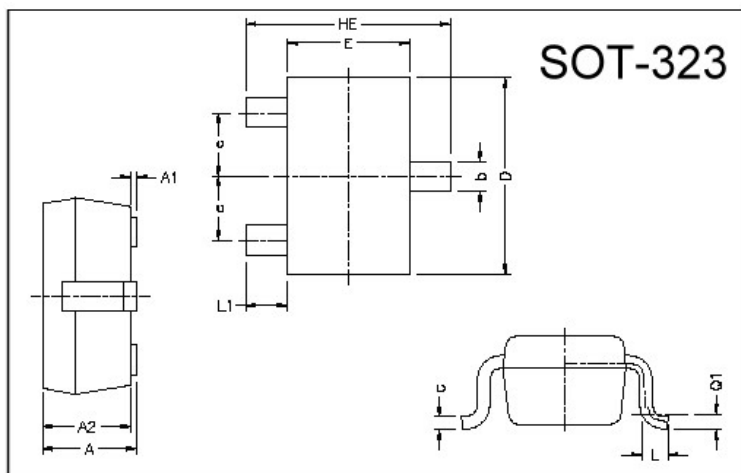


## GSMBT3906 PNP EPITAXIAL PLANAR TRANSISTOR

### Description

The GSMBT3906 is designed for general purpose switching and amplifier applications.

### 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.	

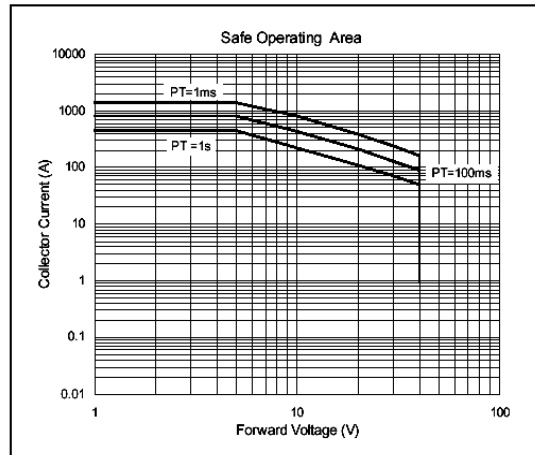
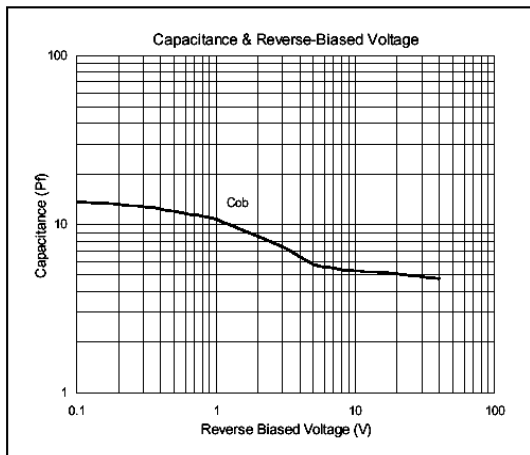
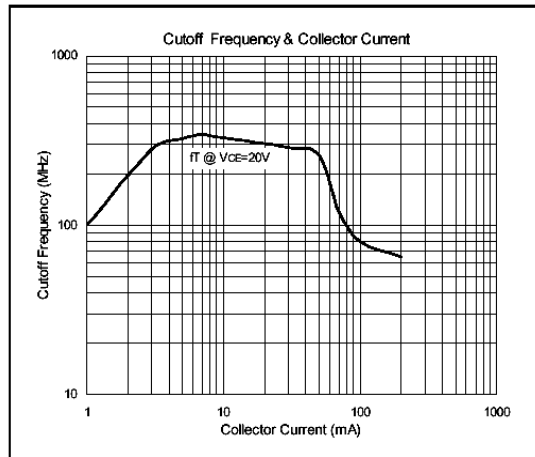
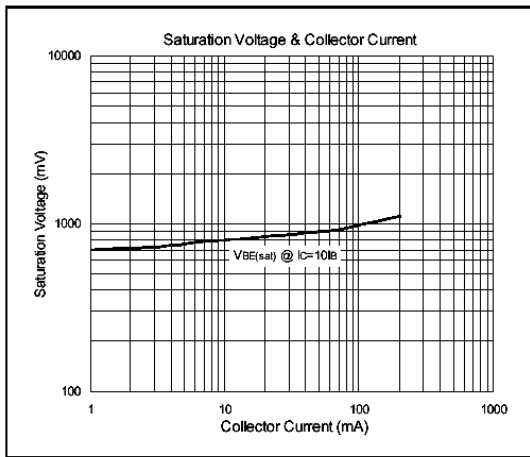
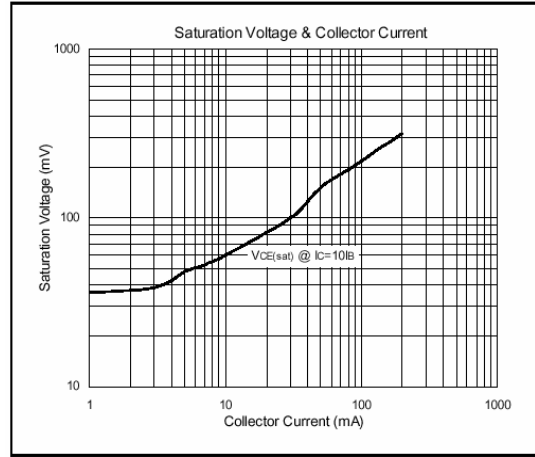
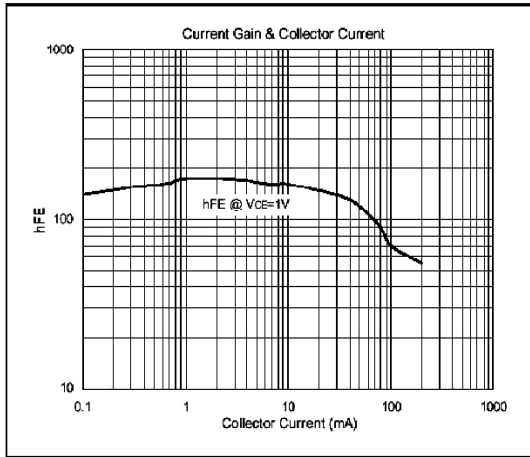
### Absolute Maximum Ratings at Ta = 25°C

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	-40	V
Collector to Emitter Voltage	VCEO	-40	V
Emitter to Base Voltage	VEBO	-5	V
Collector Current	I <sub>C</sub>	-200	mA
Total Power Dissipation	PD	300	mW

### Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-40	-	-	V	I <sub>C</sub> =-10uA
BVCEO	-40	-	-	V	I <sub>C</sub> =-10mA
BVEBO	-5	-	-	V	I <sub>E</sub> =-10uA
ICES	-	-	-50	nA	V <sub>CB</sub> =-30V
IEBO	-	-	-50	nA	V <sub>EB</sub> =-3V
VCE(sat)1	-	-	-0.25	V	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA
VCE(sat)2	-	-	-0.4	V	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA
VBE(sat)1	-0.65	-	-0.85	V	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA
VBE(sat)2	-	-	-0.95	V	I <sub>C</sub> =-50mA, I <sub>B</sub> =-5mA
hFE1	60	-	-		V <sub>CE</sub> =-1V, I <sub>C</sub> =-0.1mA
hFE2	80	-	-		V <sub>CE</sub> =-1V, I <sub>C</sub> =-1mA
hFE3	100	-	300		V <sub>CE</sub> =-1V, I <sub>C</sub> =-10mA
hFE4	60	-	-		V <sub>CE</sub> =-1V, I <sub>C</sub> =-50mA
hFE5	30	-	-		V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA
f <sub>T</sub>	250	-	-	MHz	V <sub>CE</sub> =-20V, I <sub>E</sub> =-10mA, f=100MHz
C <sub>ob</sub>	-	-	4.5	pF	V <sub>CB</sub> =-10V, f=100KHz
C <sub>ib</sub>	-	-	10	pF	V <sub>EB</sub> =-0.5V, f=100KHz
t <sub>d</sub>	-	-	35	ns	V <sub>CC</sub> =-3V, V <sub>BE</sub> (OFF)=-0.5V, I <sub>C</sub> =-10mA, I <sub>B1</sub> =-1mA
t <sub>r</sub>	-	-	35	ns	V <sub>CC</sub> =-3V, V <sub>BE</sub> (OFF)=-0.5V, I <sub>C</sub> =-10mA, I <sub>B1</sub> =-1mA
t <sub>stg</sub>	-	-	225	ns	V <sub>CC</sub> =-3V, I <sub>C</sub> =-10mA, I <sub>B1</sub> =-I <sub>B2</sub> =-1mA
t <sub>f</sub>	-	-	75	ns	V <sub>CC</sub> =-3V, I <sub>C</sub> =-10mA, I <sub>B1</sub> =-I <sub>B2</sub> =-1mA

## Characteristics Curve



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