

## GSMBT2222A

### NPN EPITAXIAL PLANAR TRANSISTOR

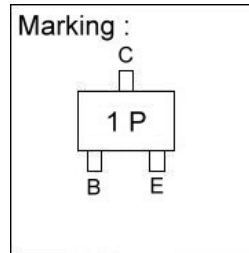
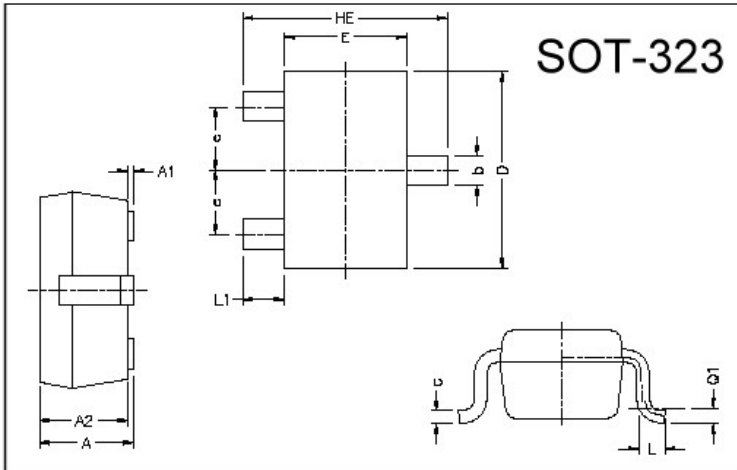
#### Description

The GSMBT2222A is designed for general purpose amplifier and high speed, medium-power switching applications.

#### Features

- High frequency current gain
- High speed switching
- For complementary use with PNP type GSMBT2907A

#### 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

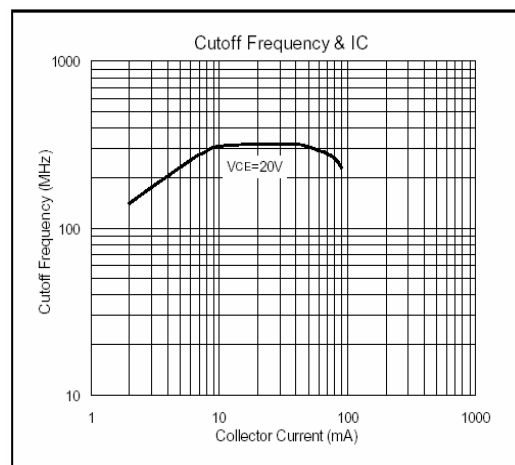
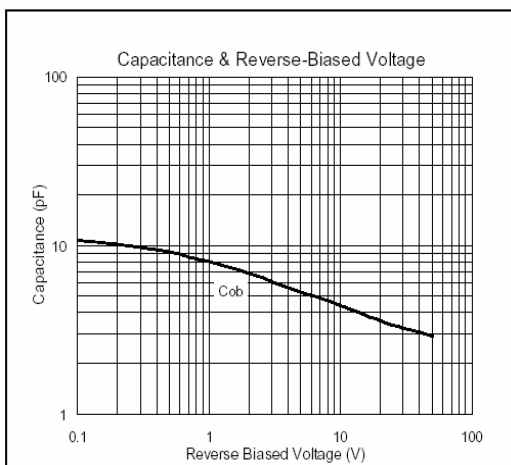
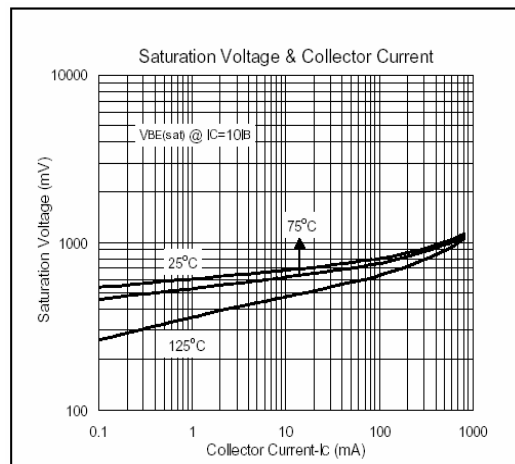
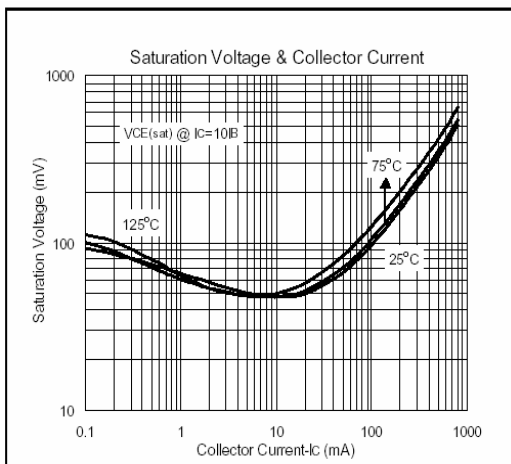
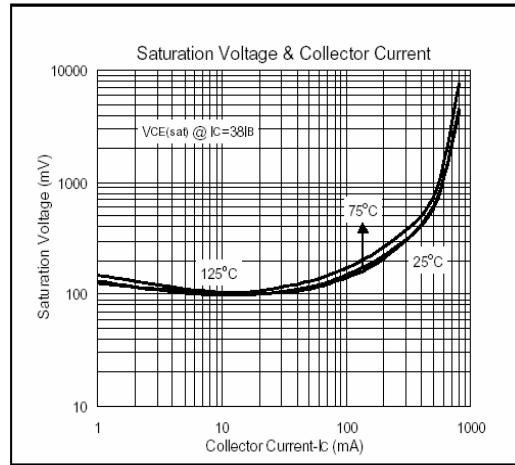
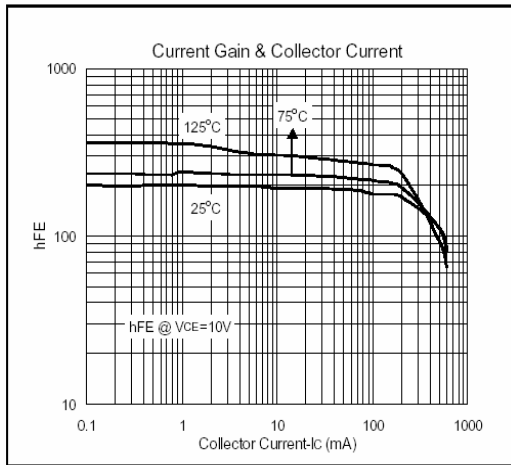
Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-55 ~ +150	°C
Collector to Base Voltage at Ta=25°C	VCBO	75	V
Collector to Emitter Voltage at Ta=25°C	VCEO	40	V
Emitter to Base Voltage at Ta=25°C	VEBO	6	V
Collector Current at Ta=25°C	IC	600	mA
Total Power Dissipation at Ta=25°C	PD	225	mW

#### Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCEO	75	-	-	V	IC=100uA, IE=0
BVCEO	40	-	-	V	IC=10mA, IB=0
BVEBO	6	-	-	V	IE=10uA, IC=0
ICBO	-	-	10	nA	VCB=60V, IE=0
ICEX	-	-	10	nA	VCE=60V, VEB(OFF)=3V
IEBO	-	-	10	nA	VEB=3V
*VCE(sat)1	-	-	500	mV	IC=380mA, IB=10mA
*VCE(sat)2	-	-	1.0	V	IC=500mA, IB=50mA
*VBE(sat)1	-	-	1.2	V	IC=150mA, IB=15mA
*VBE(sat)2	-	-	2.0	V	IC=500mA, IB=50mA
*hFE1	35	-	-		VCE=10V, IC=100uA
*hFE2	50	-	-		VCE=10V, IC=1mA
*hFE3	75	-	-		VCE=10V, IC=10mA
*hFE4	100	-	300		VCE=10V, IC=150mA
*hFE5	40	-	-		VCE=10V, IC=500mA
fT	300	-	-	MHz	VCB=20V, IC=20mA, f=100MHz

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

## Characteristics Curve



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