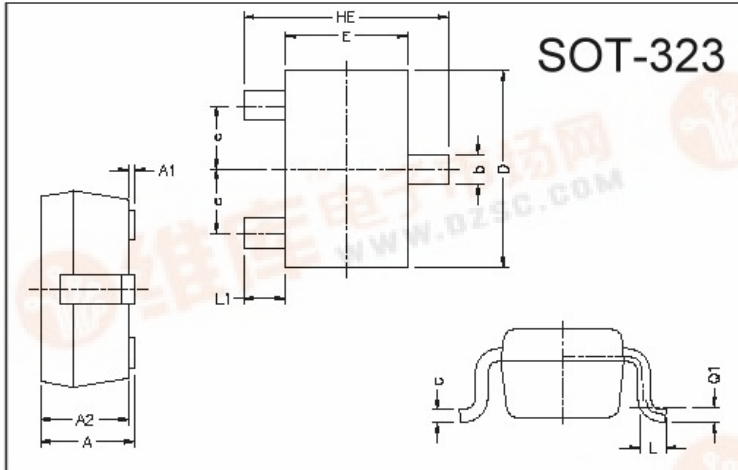
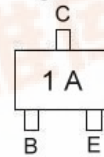


GTM**CORPORATION**ISSUED DATE :2005/06/08
REVISED DATE :**GSMBT3904****NPN EPITAXIAL PLANAR TRANSISTOR****Description**

The GSMBT3904 is designed for general purpose switching and amplifier applications.

Package Dimensions

Marking :



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.	

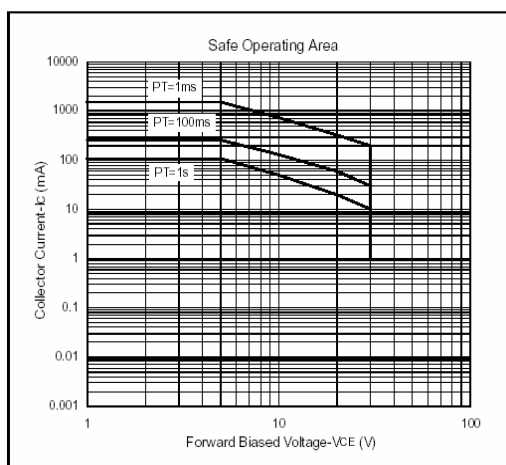
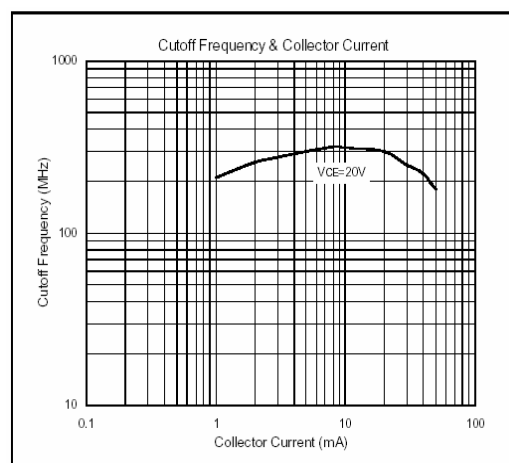
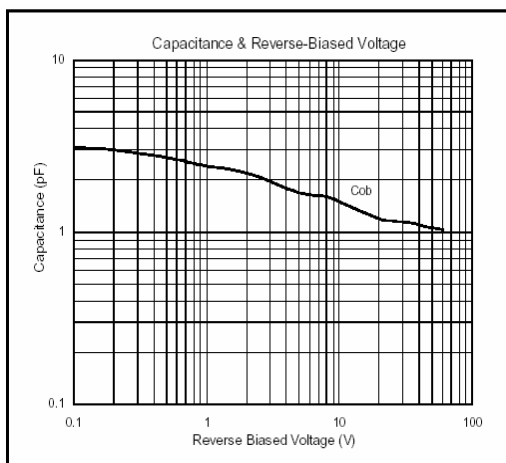
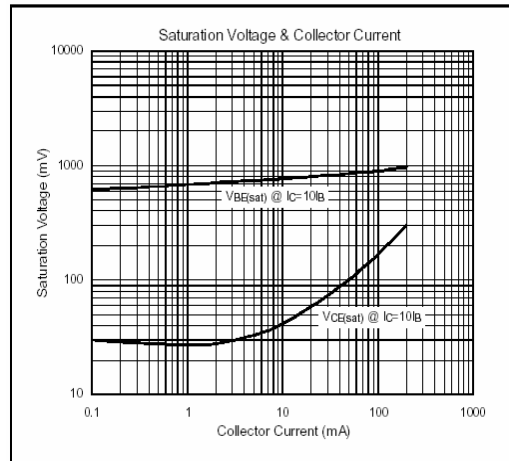
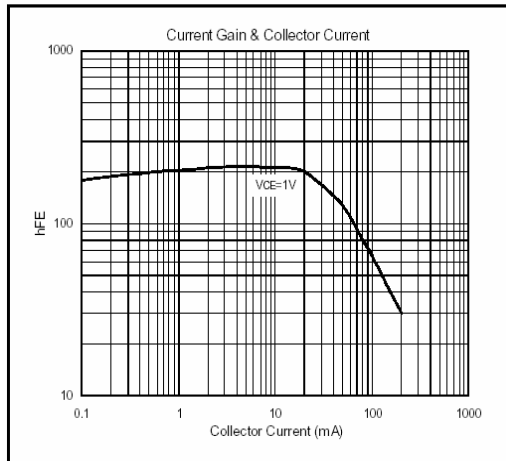
Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Junction Temperature	Tj	+150	°C
Storage Temperature	Tstg	-65 ~ +150	°C
Collector to Base Voltage	VCBO	60	V
Collector to Emitter Voltage	VCEO	40	V
Emitter to Base Voltage	VEBO	6	V
Collector Current	IC	200	mA
Total Power Dissipation	PD	350	mW

Characteristics at Ta = 25°C

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=10uA, IE=0
BVCEO	40	-	-	V	IC=1mA, IB=0
BVEBO	6	-	-	V	IE=10uA, IC=0
ICES	-	-	50	nA	VCB=30V
IEBO	-	-	50	nA	VEB=3V
VCE(sat)1	-	-	200	mV	IC=10mA, IB=1mA
VCE(sat)2	-	-	300	mV	IC=50mA, IB=5mA
VBE(sat)1	650	-	850	mV	IC=10mA, IB=1mA
VBE(sat)2	-	-	950	mV	IC=50mA, IB=5mA
hFE1	40	-	-		VCE=1V, IC=0.1mA
hFE2	70	-	-		VCE=1V, IC=1mA
hFE3	100	-	300		VCE=1V, IC=10mA
hFE4	60	-	-		VCE=1V, IC=50mA
hFE5	30	-	-		VCE=1V, IC=100mA
fT	300	-	-	MHz	VCE=20V, IE=-10mA, f=100MHz
Cob	-	-	4	pF	VCB=10V, f=100KHz
Cib	-	-	8	pF	VEB=0.5V, f=100KHz
td	-	-	35	ns	VCC=3V, VBE(OFF)=0.5V, IC=10mA, IB1=1mA
tr	-	-	35	ns	VCC=3V, VBE(OFF)=0.5V, IC=10mA, IB1=1mA
tstg	-	-	200	ns	VCC=3V, IC=10mA, IB1=-IB2=1mA
tf	-	-	50	ns	VCC=3V, IC=10mA, IB1=-IB2=1mA

Characteristics Curve



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