

# GTM CORPORATION

ISSUED DATE :2003/10/24  
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## GSC1384 NPN EPITAXIAL PLANAR TRANSISTOR

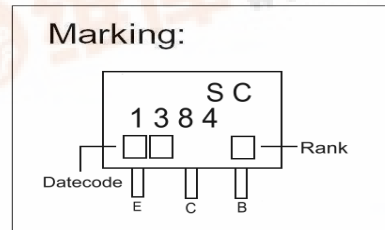
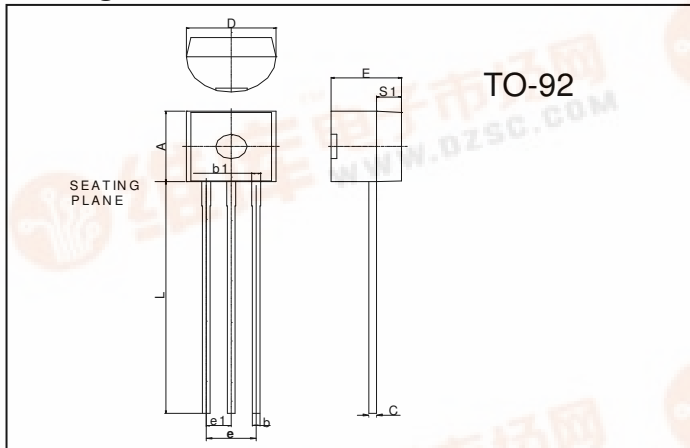
### Description

The GSC1384 is designed for power amplifier and driver.

### Features

- \*Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- \*Complementary pair with GSA684

### Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.45	4.7	D	4.44	4.7
S1	1.02	-	E	3.30	3.81
b	0.36	0.51	L	12.70	-
b1	0.36	0.76	e1	1.150	1.390
C	0.36	0.51	e	2.42	2.66

### Absolute Maximum Ratings (Ta = 25°C, unless otherwise specified)

Parameter		Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	60	V
Collector to Emitter Voltage	$V_{CEO}$	50	V
Emitter to Base Voltage	$V_{EBO}$	5	V
Collect Current(DC)	$I_C$	1	A
Collect Current*(Pulse)	$I_{CP}$	1.5	A
Junction Temperature	$T_j$	+150	°C
Storage Temperature Range	$T_{STG}$	-55 ~ +150	°C
Total Power Dissipation	$P_D$	1	W

### Electrical Characteristics (Ta = 25°C, unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{CBO}$	60	-	-	V	$I_C=10\mu A, I_E=0$
$V_{CEO}$	50	-	-	V	$I_C=2mA, I_B=0$
$V_{EBO}$	5	-	-	V	$I_E=10\mu A, I_C=0$
$I_{CBO}$	-	-	0.1	$\mu A$	$V_{CB}=20V, I_E=0$
$V_{CE(sat)}$	-	200	400	mV	$I_C=0.5A, I_B=50mA(\text{note})$
$V_{BE(sat)}$	-	0.85	1.2	V	$I_C=0.5A, I_B=50mA(\text{note})$
* $h_{FE1}$	85	160	340		$V_{CE}=10V, I_C=500mA(\text{note})$
* $h_{FE2}$	50	100	-		$V_{CE}=5V, I_C=1A(\text{note})$
fT	-	200	-	MHz	$V_{CE}=10V, I_B=-50mA, f=200MHz$
Cob	-	11	20	pF	$V_{CB}=10V, I_E=0, f=1MHz$

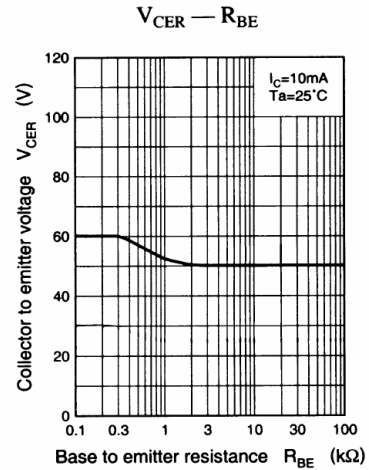
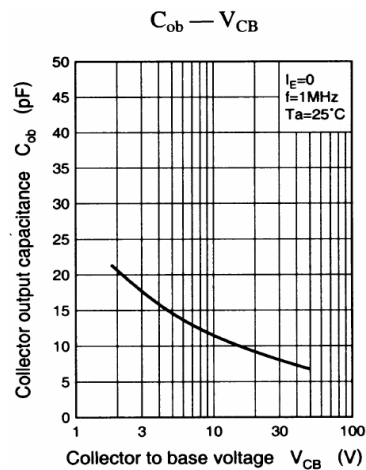
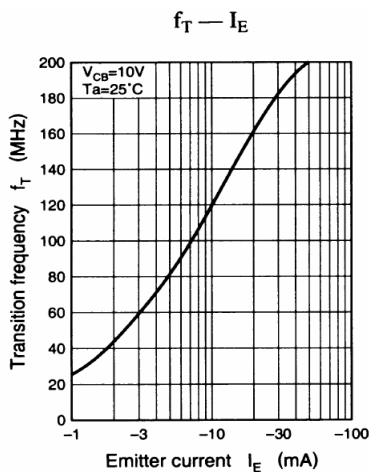
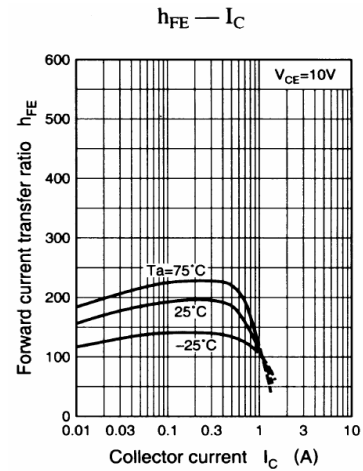
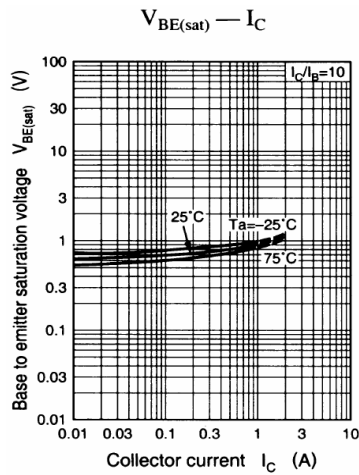
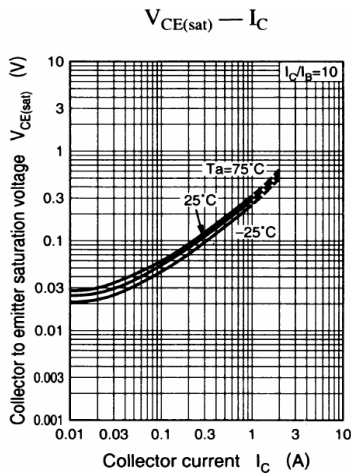
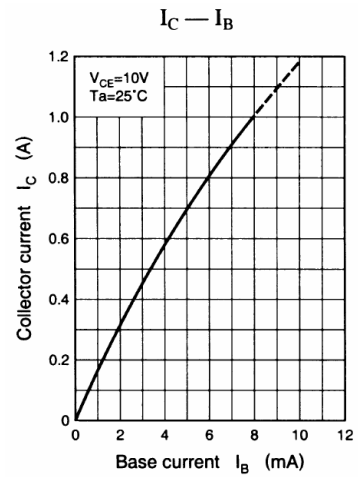
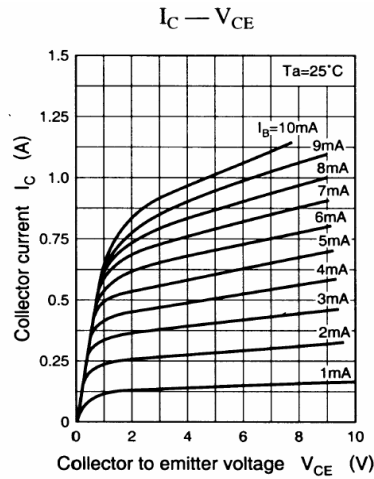
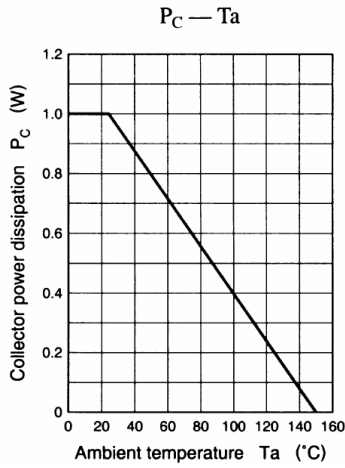
Note: Pulse measurement

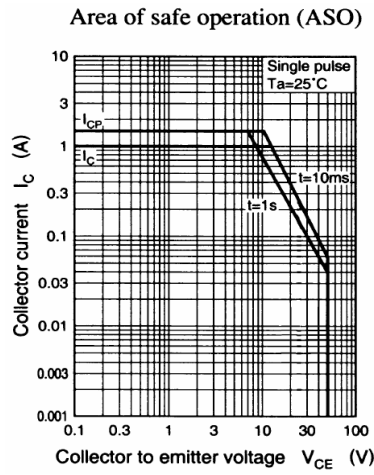
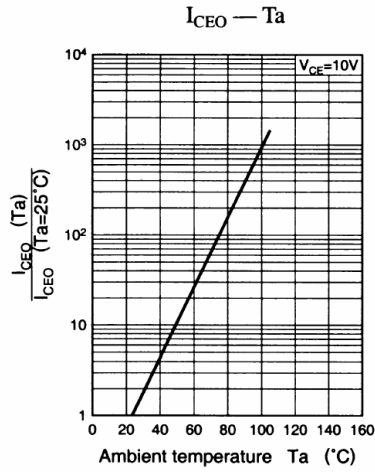
### Classification Of $h_{FE1}$

Rank	Q	R	S
Range	85-170	120-240	170-340



## Characteristics Curve





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