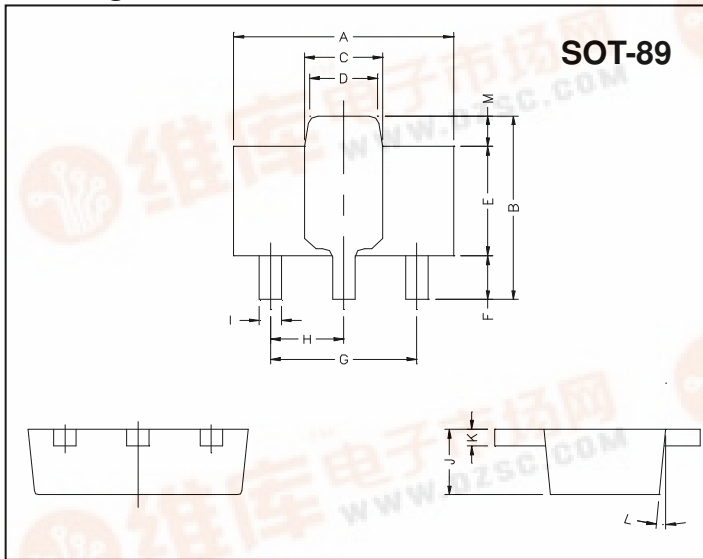
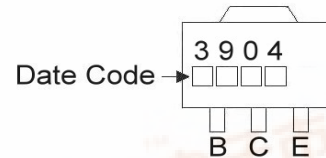


GTM**CORPORATION**ISSUED DATE :2005/04/04
REVISED DATE :**GM3904****NPN EPITAXIAL PLANAR TRANSISTOR****Description**

The GM3904 is designed for general purpose switching and amplifier applications.

Features

- Collector-Emitter Voltage: $V_{CEO}=40V$
- Complementary to GM3906

Package Dimensions**Marking :**

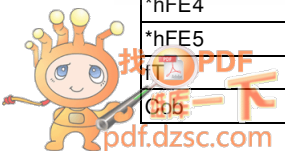
REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.4	4.6	G	3.00	REF.
B	4.05	4.25	H	1.50	REF.
C	1.50	1.70	I	0.40	0.52
D	1.30	1.50	J	1.40	1.60
E	2.40	2.60	K	0.35	0.41
F	0.89	1.20	L	5°	TYP.
			M	0.70	REF.

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$, unless otherwise specified)

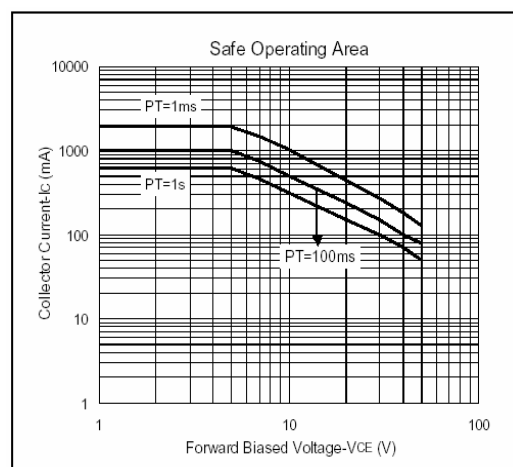
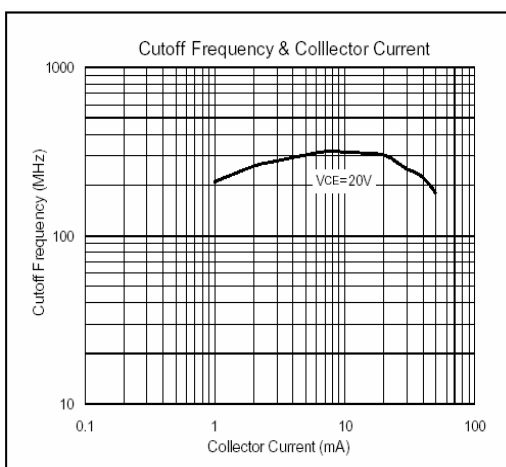
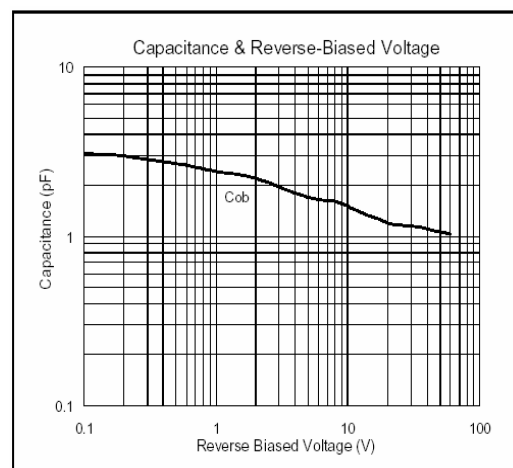
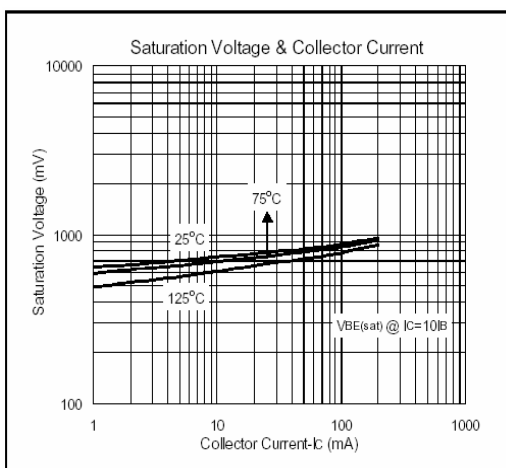
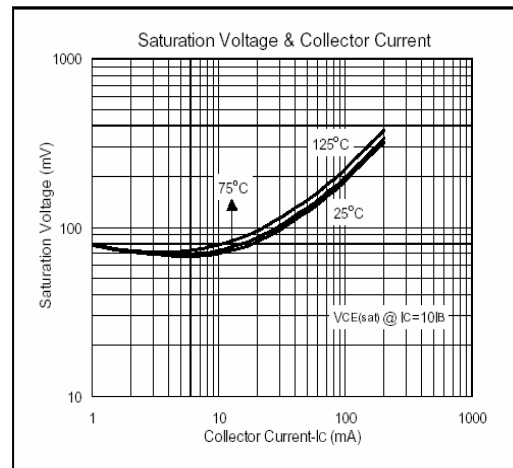
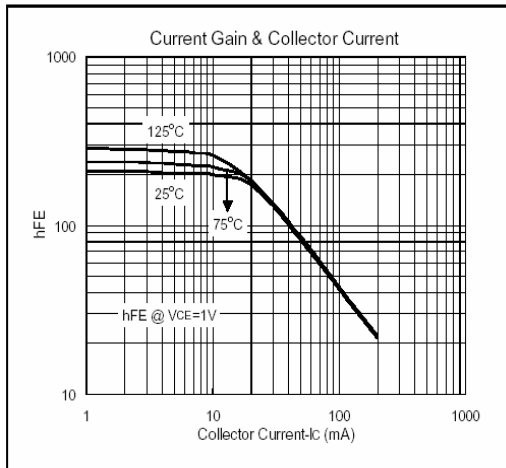
Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6	V
Collect Current(DC)	I_C	200	mA
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$
Total Power Dissipation	P_D	1	W

Electrical Characteristics ($T_a = 25^\circ\text{C}$, unless otherwise specified)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVC_{BO}	60	-	-	V	$I_C=10\mu\text{A}$, $I_E=0$
BV_{CEO}	40	-	-	V	$I_C=1\text{mA}$, $I_B=0$
BVE_{BO}	6	-	-	V	$I_E=10\mu\text{A}$, $I_C=0$
IC_{EX}	-	-	50	nA	$V_{CE}=30V$, $V_{BE}=3V$
* $V_{CE(sat)1}$	-	-	200	mV	$I_C=10\text{mA}$, $I_B=1\text{mA}$
* $V_{CE(sat)2}$	-	-	300	mV	$I_C=50\text{mA}$, $I_B=5\text{mA}$
* $V_{BE(sat)1}$	650	-	850	mV	$I_C=10\text{mA}$, $I_B=1\text{mA}$
* $V_{BE(sat)2}$	-	-	950	mV	$I_C=50\text{mA}$, $I_B=5\text{mA}$
* h_{FE1}	40	-	-	-	$V_{CE}=1V$, $I_C=0.1\text{mA}$
* h_{FE2}	70	-	-	-	$V_{CE}=1V$, $I_C=1\text{mA}$
* h_{FE3}	100	-	300	-	$V_{CE}=1V$, $I_C=10\text{mA}$
* h_{FE4}	60	-	-	-	$V_{CE}=1V$, $I_C=50\text{mA}$
* h_{FE5}	30	-	-	-	$V_{CE}=1V$, $I_C=100\text{mA}$
f_T	300	-	-	MHZ	$V_{CE}=20V$, $I_C=10\text{mA}$, $f=100\text{MHZ}$
C_{ob}	-	-	4	pF	$V_{CB}=5V$, $I_E=0$, $f=1\text{MHZ}$

* Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$ 

Characteristics Curve



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