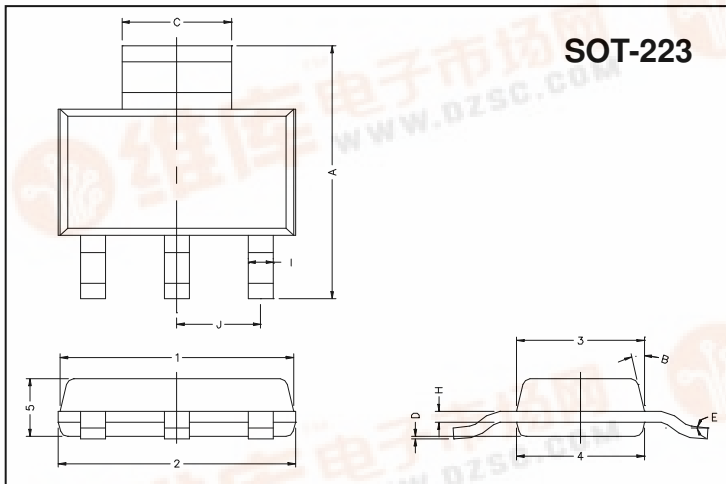


GTM**CORPORATION**ISSUED DATE :2005/06/02
REVISED DATE :**GL3904****NPN EPITAXIAL PLANAR TRANSISTOR****Description**

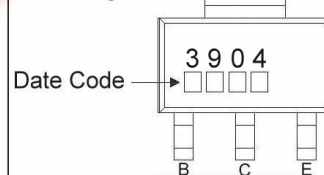
The GL3904 is designed for general purpose switching and amplifier applications.

Features

- Collector-Emitter Voltage: $V_{CEO}=40V$
- Complementary to GL3906

Package Dimensions

Marking :



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.70	7.30	B	13° TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80

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

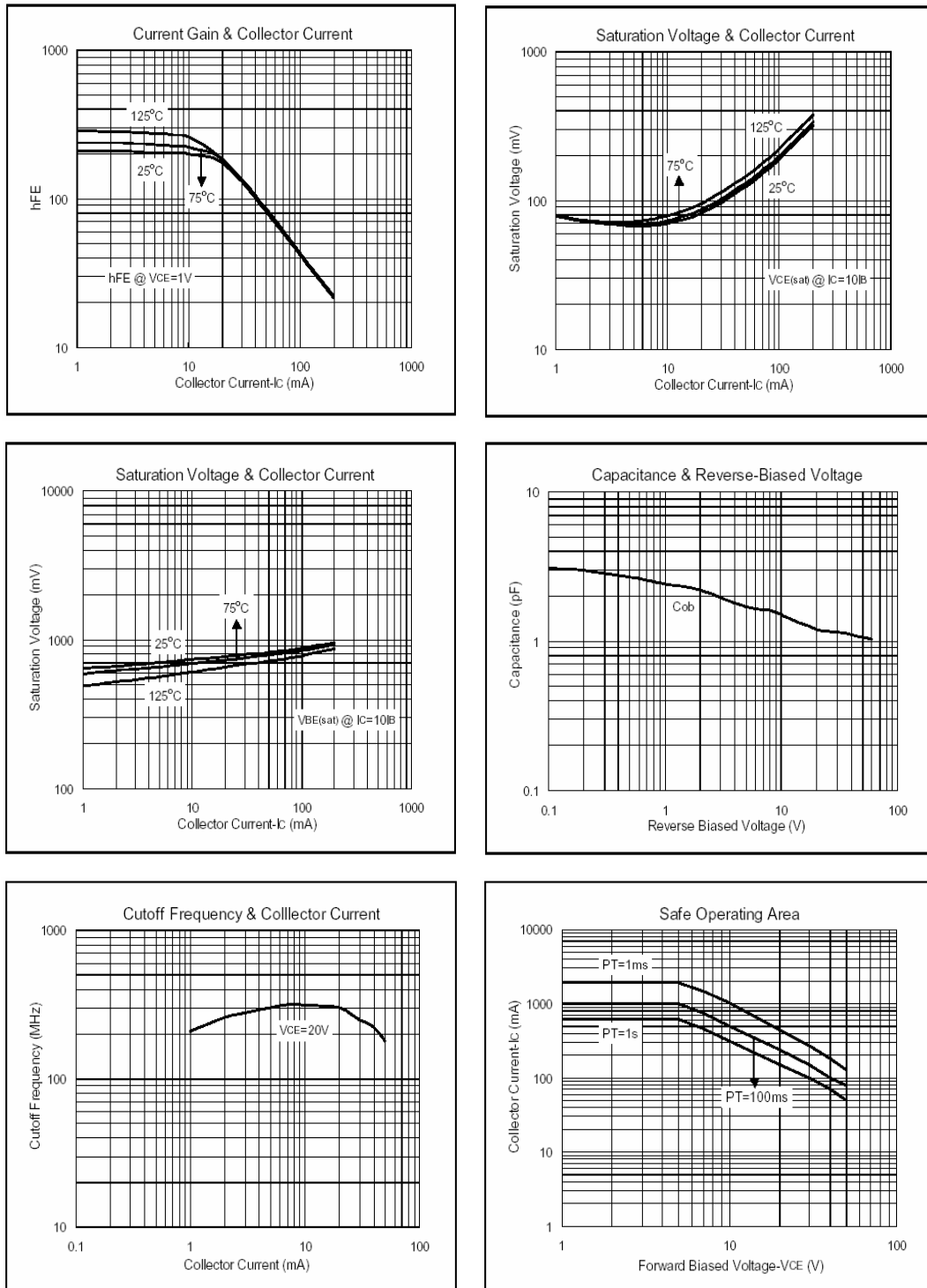
Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6	V
Collect Current(DC)	I_C	200	mA
Junction Temperature	T_j	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$
Total Power Dissipation	P_D	1.5	W

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

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
B_{VCBO}	60	-	-	V	$I_C=10\mu\text{A}$, $I_E=0$
B_{VCEO}	40	-	-	V	$I_C=1\text{mA}$, $I_B=0$
B_{VEBO}	6	-	-	V	$I_E=10\mu\text{A}$, $I_C=0$
I_{CEX}	-	-	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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