

# G2N3906

## PNP EPITAXIAL PLANAR TRANSISTOR

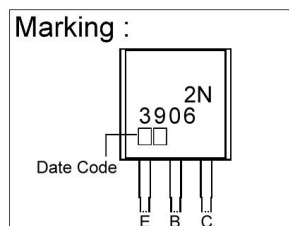
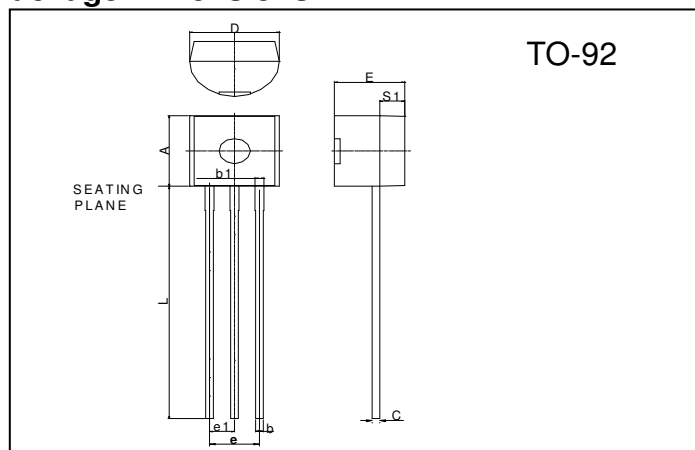
### Description

The G2N3906 is designed for general purpose switching and amplifier applications.

### Features

- \*Pb-free package are available
- \*Collector-Emitter Voltage:  $V_{CEO} = -40V$
- \*Collect Dissipation:  $P_c (\text{max}) = 625mW$
- \*Complementary to G2N3904

### 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

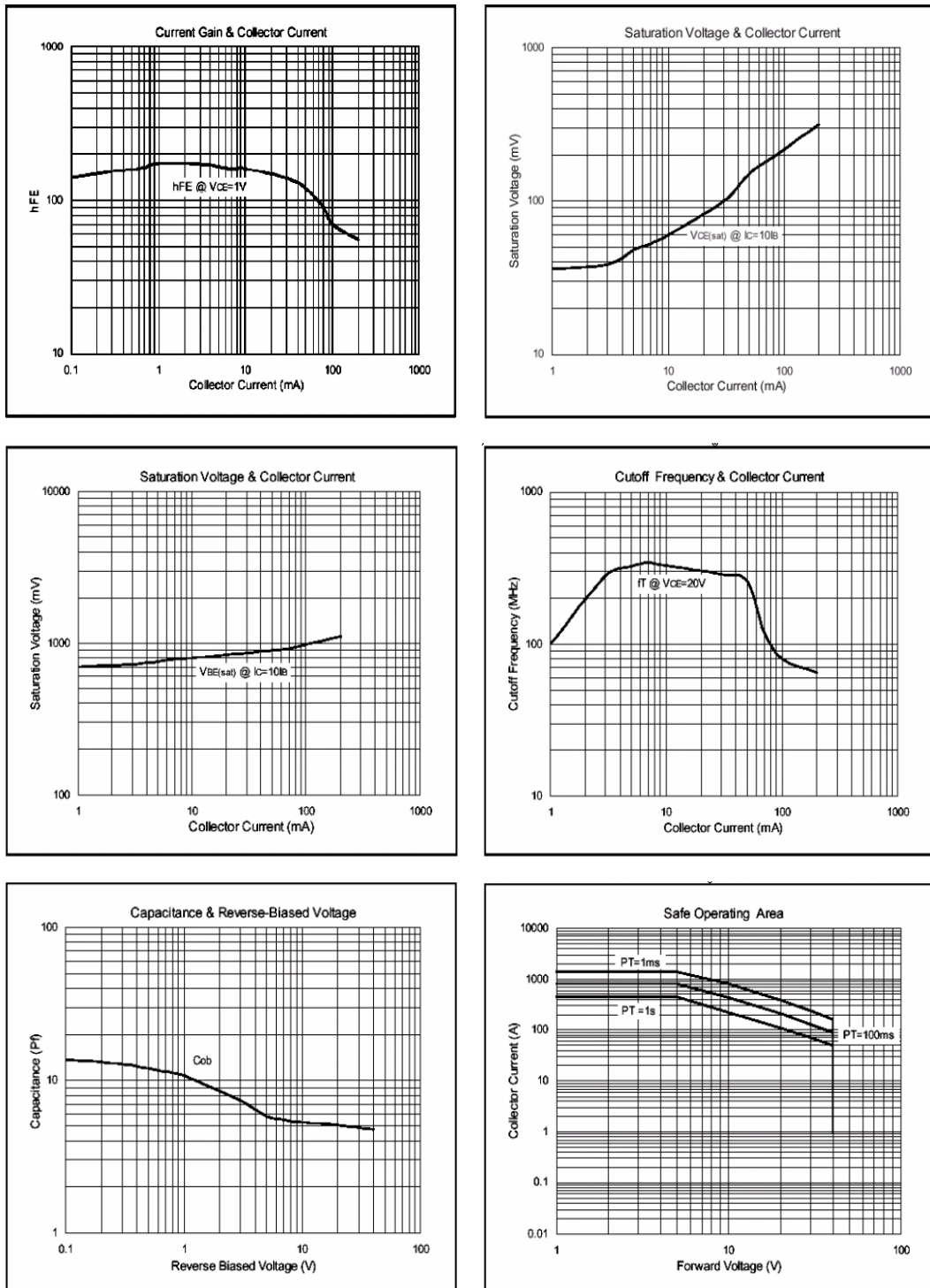
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ , unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CBO}$	-40	V
Collector to Emitter Voltage	$V_{CEO}$	-40	V
Emitter to Base Voltage	$V_{EBO}$	-5	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	$P_D$	625	mW

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

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$V_{CBO}$	-40	-	-	V	$I_C = -10\mu\text{A}$ , $I_E = 0$
$V_{CEO}$	-40	-	-	V	$I_C = -1\text{mA}$ , $I_B = 0$
$V_{EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}$ , $I_C = 0$
$I_{CEX}$	-	-	-50	nA	$V_{CE} = -30V$ , $V_{EB} = -3V$
$I_{EBO}$	-	-	-50	nA	$V_{EB} = -3V$
$V_{CE}(\text{sat})1$	-	-	-0.25	V	$I_C = -10\text{mA}$ , $I_B = -1\text{mA}$
$V_{CE}(\text{sat})2$	-	-	-0.4	V	$I_C = -50\text{mA}$ , $I_B = -5\text{mA}$
$V_{BE}(\text{sat})1$	-0.65	-	-0.85	V	$I_C = -10\text{mA}$ , $I_B = -1\text{mA}$
$V_{BE}(\text{sat})2$	-	-	-0.95	V	$I_C = -50\text{mA}$ , $I_B = -5\text{mA}$
$h_{FE1}$	60	-	-		$V_{CE} = -1V$ , $I_C = -0.1\text{mA}$
$h_{FE2}$	80	-	-		$V_{CE} = -1V$ , $I_C = -1\text{mA}$
$h_{FE3}$	100	-	300		$V_{CE} = -1V$ , $I_C = -10\text{mA}$
$h_{FE4}$	60	-	-		$V_{CE} = -1V$ , $I_C = -50\text{mA}$
$h_{FE5}$	30	-	-		$V_{CE} = -1V$ , $I_C = -100\text{mA}$
$f_T$	250	-	-	MHz	$V_{CE} = -20V$ , $I_E = -10\text{mA}$ , $f = 100\text{MHz}$
$C_{ob}$	-	-	4.5	pF	$V_{CB} = -10V$ , $f = 100\text{KHz}$
$C_{ib}$	-	-	10	pF	$V_{EB} = -0.5V$ , $f = 100\text{KHz}$
$t_d$	-	-	35	ns	$V_{CC} = -3V$ , $V_{BE}(\text{OFF}) = -0.5V$ , $I_C = -10\text{mA}$ , $I_{B1} = -1\text{mA}$
$t_r$	-	-	35	ns	$V_{CC} = -3V$ , $V_{BE}(\text{OFF}) = -0.5V$ , $I_C = -10\text{mA}$ , $I_{B1} = -1\text{mA}$
$t_{stg}$	-	-	225	ns	$V_{CC} = -3V$ , $I_C = -10\text{mA}$ , $I_{B1} = -I_{B2} = -1\text{mA}$
$t_f$	-	-	75	ns	$V_{CC} = -3V$ , $I_C = -10\text{mA}$ , $I_{B1} = -I_{B2} = -1\text{mA}$

## Characteristics Curve



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