

## G2N5551

### NPN EPITAXIAL PLANAR TRANSISTOR

#### Description

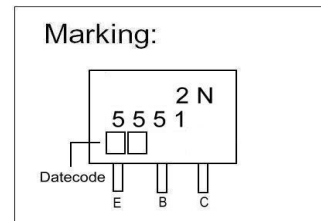
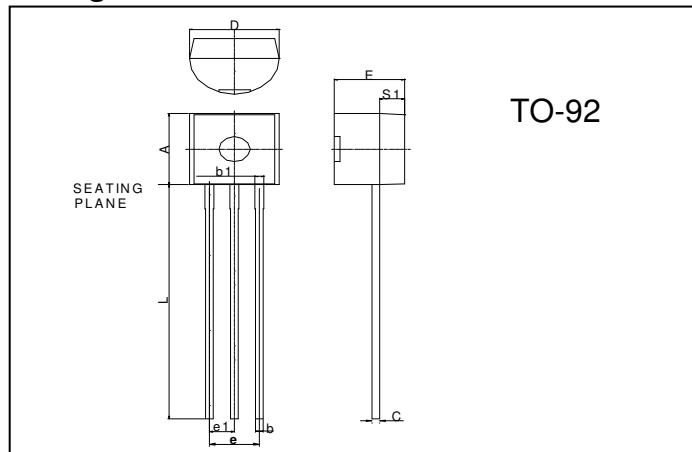
The G2N5551 is designed for general purpose switching and amplifier applications.

#### Features

\*Complementary to PNP Type G2N5401

\*High Collector – Emitter Breakdown Voltage ( $V_{CE0} > 160V$  (@ $I_C=1mA$ )

#### 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 at $T_a = 25^\circ C$

Parameter	Symbol	Ratings	Unit
Junction Temperature	$T_j$	+150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 ~ +150	$^\circ C$
Collector to Base Voltage	$V_{CB0}$	180	V
Collector to Emitter Voltage	$V_{CE0}$	160	V
Emitter to Base Voltage	$V_{EB0}$	6	V
Collector Current	$I_C$	600	mA
Total Power Dissipation	$P_D$	625	mW

#### Characteristics at $T_a = 25^\circ C$

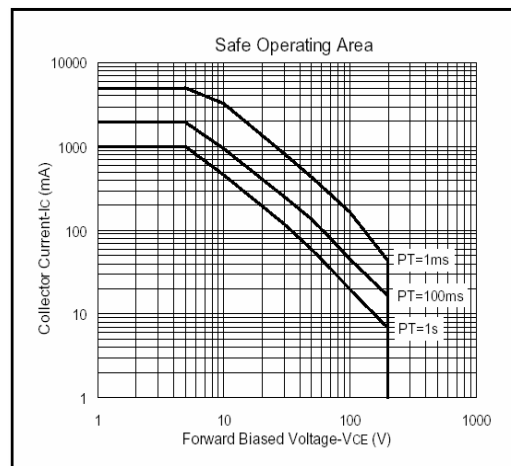
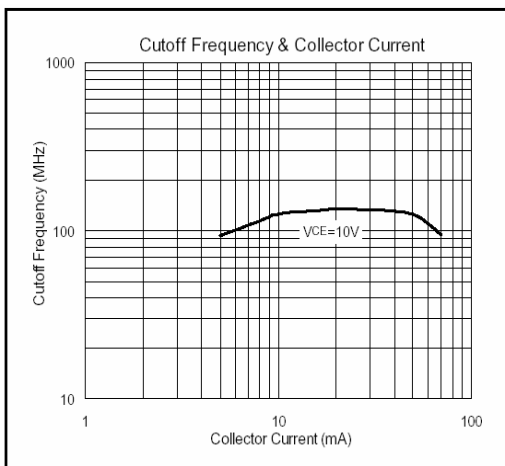
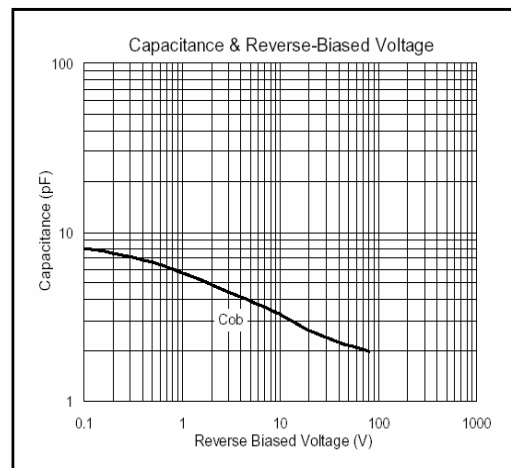
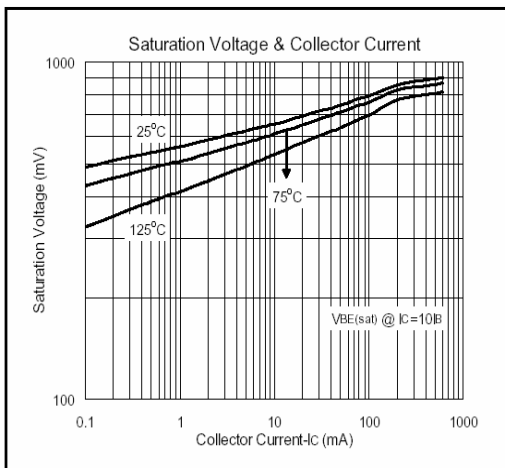
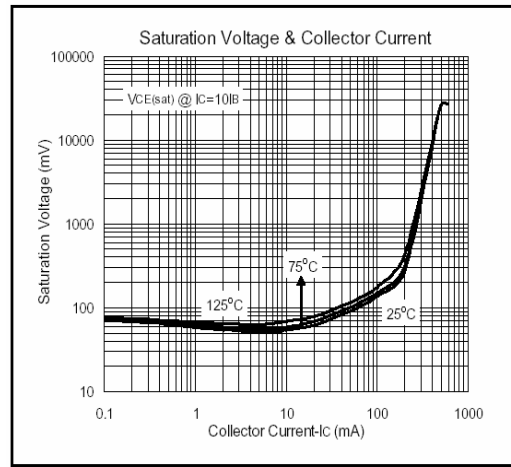
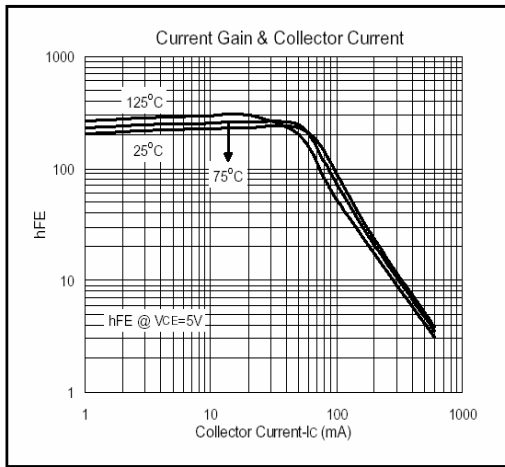
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$BV_{CB0}$	180	-	-	V	$I_C=100\mu A, I_E=0$
$BV_{CE0}$	160	-	-	V	$I_C=1mA, I_B=0$
$BV_{EB0}$	6	-	-	V	$I_E=10\mu A, I_C=0$
$I_{CB0}$	-	-	50	nA	$V_{CB}=120V, I_E=0$
$I_{EB0}$	-	-	50	nA	$V_{EB}=4V, I_C=0$
* $V_{CE(sat)1}$	-	-	0.15	V	$I_C=10mA, I_B=1mA$
* $V_{CE(sat)2}$	-	-	0.2	V	$I_C=50mA, I_B=5mA$
* $V_{BE(sat)1}$	-	-	1	V	$I_C=10mA, I_B=1mA$
* $V_{BE(sat)2}$	-	-	1	V	$I_C=50mA, I_B=5mA$
* $h_{FE1}$	80	-	-		$V_{CE}=5V, I_C=1mA$
* $h_{FE2}$	80	160	400		$V_{CE}=5V, I_C=10mA$
* $h_{FE3}$	50	-	-		$V_{CE}=5V, I_C=50mA$
fT	100	-	300	MHz	$V_{CE}=10V, I_C=10mA, f=100MHz$
Cob	-	-	6	pF	$V_{CB}=10V, f=1MHz, I_E=0$

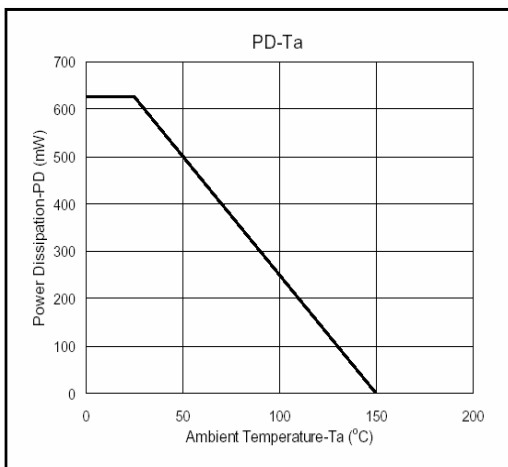
\* Pulse Test: Pulse Width  $\leq 380\mu s$ , Duty Cycle  $\leq 2\%$

#### Classification OF $h_{FE2}$

Rank	A	N	C
Range	80-200	100-250	160-400

## Characteristics Curve





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