

Description

Silicon NPN transistor in a TO-92 Plastic Package

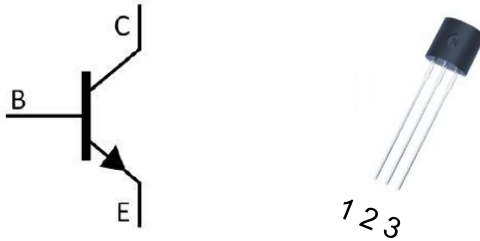
Features

- High voltage
- Complementary Pair with 2N5401

Applications

General purpose high voltage amplifier.

Symbol	Parameter	Max	Unit
V_{CE0}	collector-emitter voltage	160	V
I_c	collector current (DC)	600	mA

Equivalent Circuit & Pinning


PIN1: Collector

PIN 2: Base

PIN 3: Emitter

hFE Classifications & Marking

h _{FE} Classifications Symbol	A	B	C
h _{FE} Range	50~150	100~300	200~400

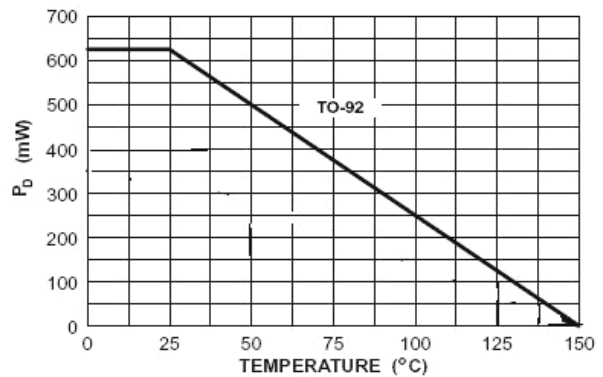
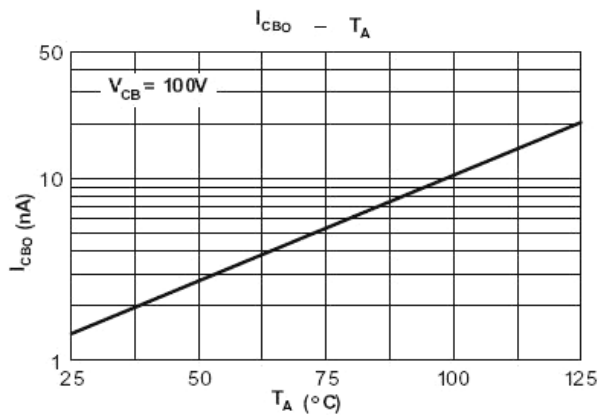
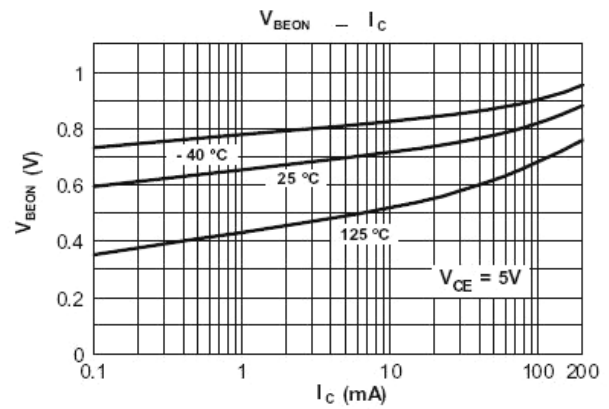
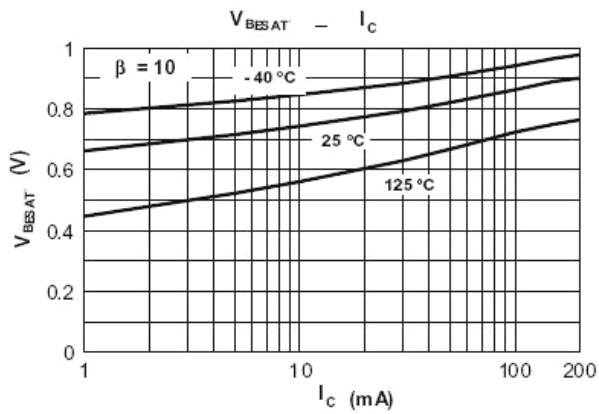
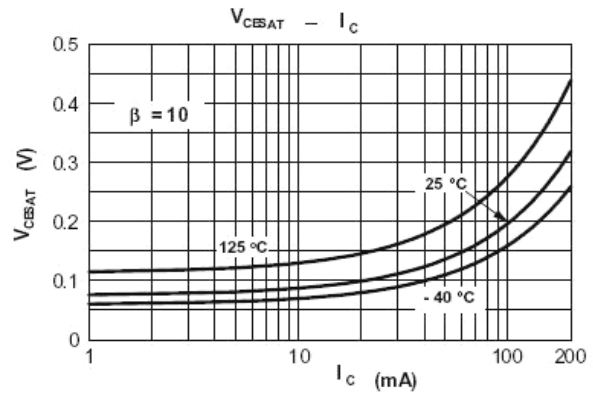
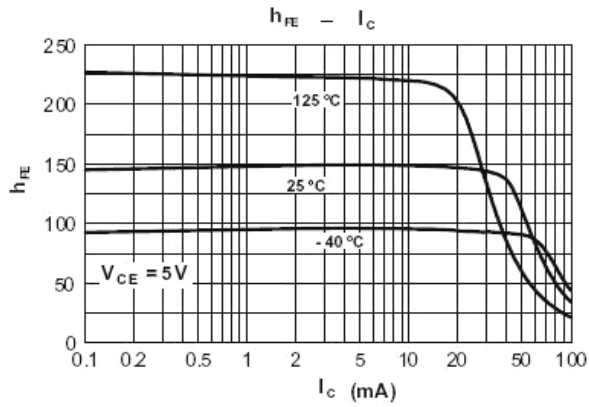
Absolute Maximum Ratings(Ta=25°C)

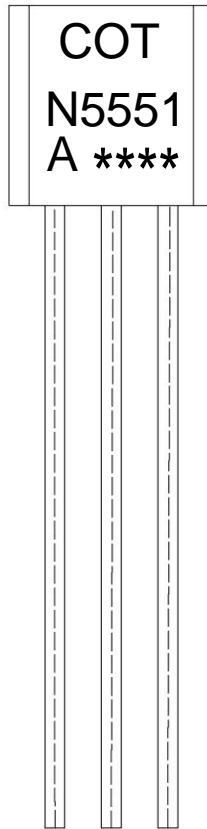
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	180	V
Collector to Emitter Voltage	V_{CEO}	160	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	600	mA
Base Current - Continuous	I_B	300	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Electrical Characteristic (Ta=25°C)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=180V$ $I_E=0$			0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5.0V$ $I_C=10mA$	50	200	400	
	$h_{FE(2)}$	$V_{CE}=5.0V$ $I_C=50mA$	20	160		
	$h_{FE(3)}$	$V_{CE}=5.0V$ $I_C=1.0mA$	40	190		
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=10mA$ $I_B=1.0mA$		0.06	0.15	V
	$V_{CE(sat)(2)}$	$I_C=50mA$ $I_B=5.0mA$		0.09	0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=10mA$ $I_B=1.0mA$		0.7	1.0	V
	$V_{BE(sat)(2)}$	$I_C=50mA$ $I_B=5.0mA$		0.8	1.0	V
Base to Emitter Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=10mA$		0.68	0.75	V
Current Gain Bandwidth Product	f_T	$V_{CE}=10V$ $I_C=10mA$	50	110		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$		2.2	5.0	pF
Turn On Time	t_{on}	$I_C=100mA$ $I_{B1}=-I_{B2}=10mA$		0.3		μs
Turn Off Time	t_{off}	$I_C=100mA$ $I_{B1}=-I_{B2}=10mA$		0.4		μs
Storage Time	t_{stg}	$I_C=100mA$ $I_{B1}=-I_{B2}=10mA$		0.2		μs

Electrical Characteristic Curve



Marking Instructions


Note:

COT: Company Code.

N5551: Product Type Code.

A: hFE Classifications Symbol.

****: Lot No. Code, code change with Lot No.

h _{FE} Classifications Symbol	A	B	C
h _{FE} Range	50~150	100~300	200~400

Packaging SPEC.
BULK

Package Type	Units					Dimension (unit: mm ³)		
	Units/Bag	Bags/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Bag	Inner Box	Outer Box
TO-92	1,000	10	10,000	5	50,000	135×190	237×172×102	560×245×195
	1,000	10	10,000	10	100,000	135×190	237×172×102	560×245×375

AMMO

Package Type	Units					Dimension (unit: mm ³)	
	Units/tape	Tape/Inner Box	Rows/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Inner Box	Outer Box
TO-92	3,000	1	120	10	30,000	328×230×42	480×346×235,

							547×407×268
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Package Outline Dimensions

TO-92

Unit: mm

