



HA8050S

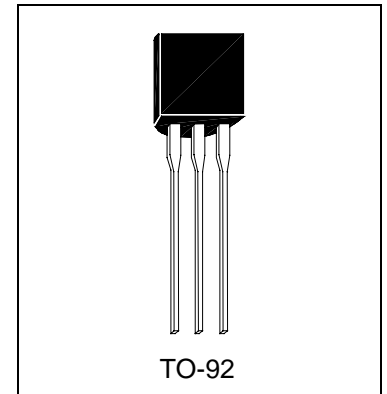
NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HA8550S is designed for general purpose amplifier applications.

Features

- High DC Current Gain ($h_{FE}=100\sim500$ at $I_C=150\text{mA}$)
- Complementary to HA8550S



Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 Total Power Dissipation ($T_a=25^\circ\text{C}$) 625 mW
- Maximum Voltages and Currents ($T_a=25^\circ\text{C}$)
 VCBO Collector to Base Voltage 25 V
 VCEO Collector to Emitter Voltage 20 V
 VEBO Emitter to Base Voltage 5 V
 IC Collector Current 700 mA

Characteristics ($T_a=25^\circ\text{C}$)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	25	-	-	V	$I_C=10\mu\text{A}$
BVCEO	20	-	-	V	$I_C=1\text{mA}$
BVEBO	5	-	-	V	$I_E=10\mu\text{A}$
ICBO	-	-	1	μA	$V_{CB}=20\text{V}$
IEBO	-	-	100	nA	$V_{EB}=6\text{V}$
* $V_{CE}(\text{sat})$	-	-	0.5	V	$I_C=0.5\text{A}$, $I_B=50\text{mA}$
$V_{BE}(\text{on})$	-	-	1	V	$V_{CE}=1\text{V}$, $I_C=150\text{mA}$
* h_{FE1}	100	-	500		$V_{CE}=1\text{V}$, $I_C=150\text{mA}$
* h_{FE2}	-	170	-		$V_{CE}=1\text{V}$, $I_C=500\text{mA}$
f_T	150	-	-	MHz	$V_{CE}=10\text{V}$, $I_C=20\text{mA}$, $f=100\text{MHz}$
Cob	-	-	10	pF	$V_{CB}=10\text{V}$, $f=1\text{MHz}$

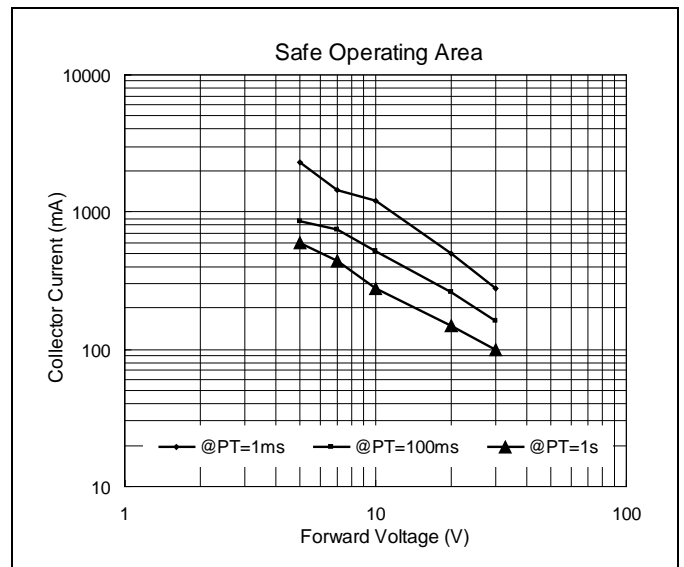
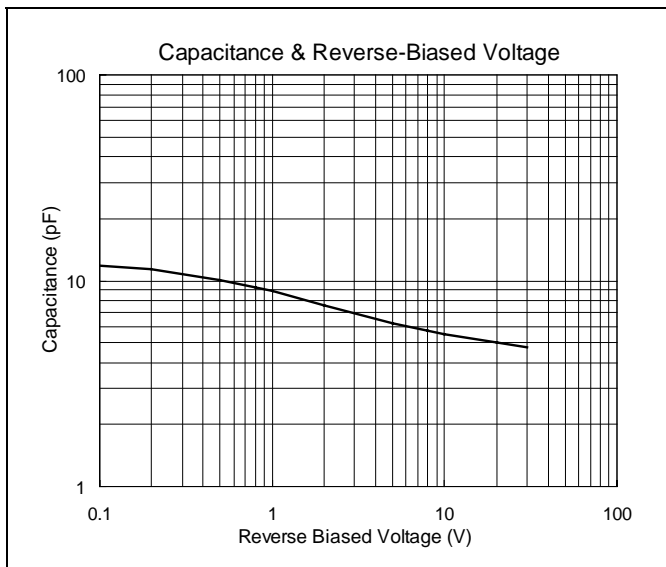
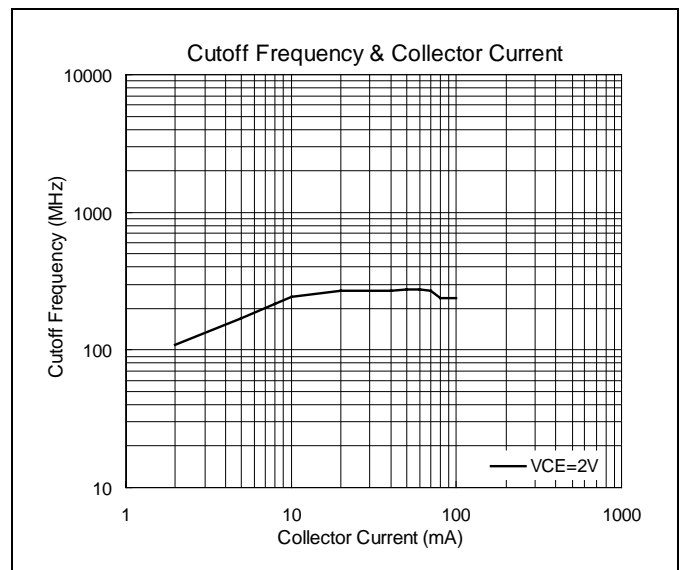
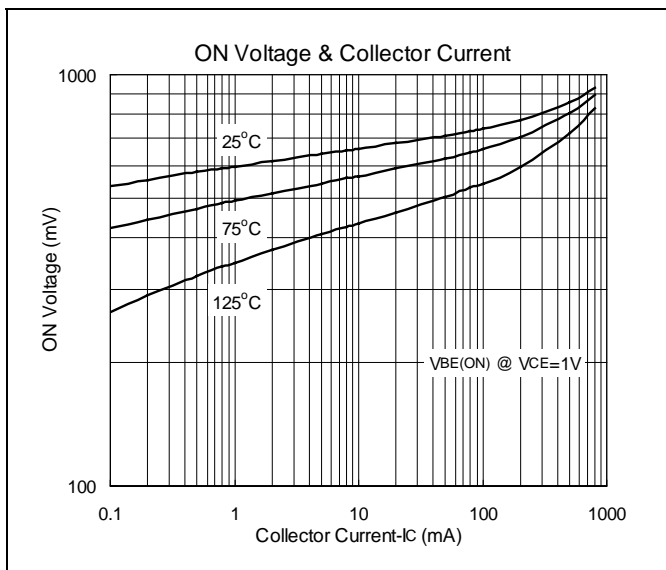
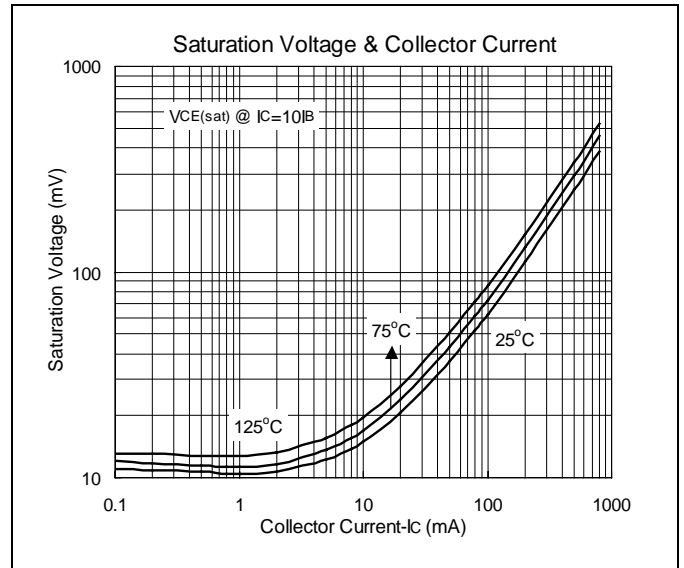
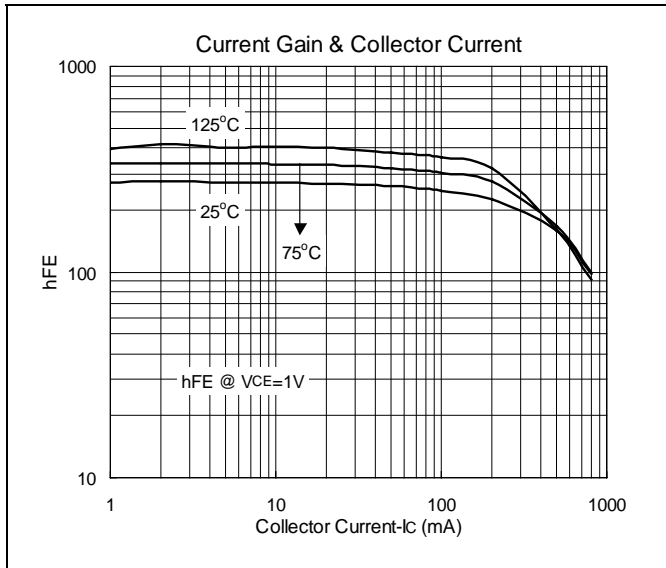
*Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

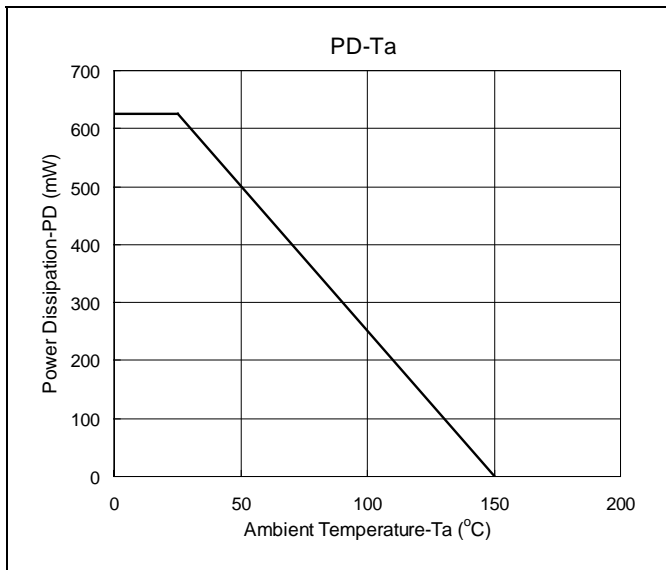
Classification on h_{FE}

Rank	C	D	E
h_{FE1}	100~200	150~300	250-500



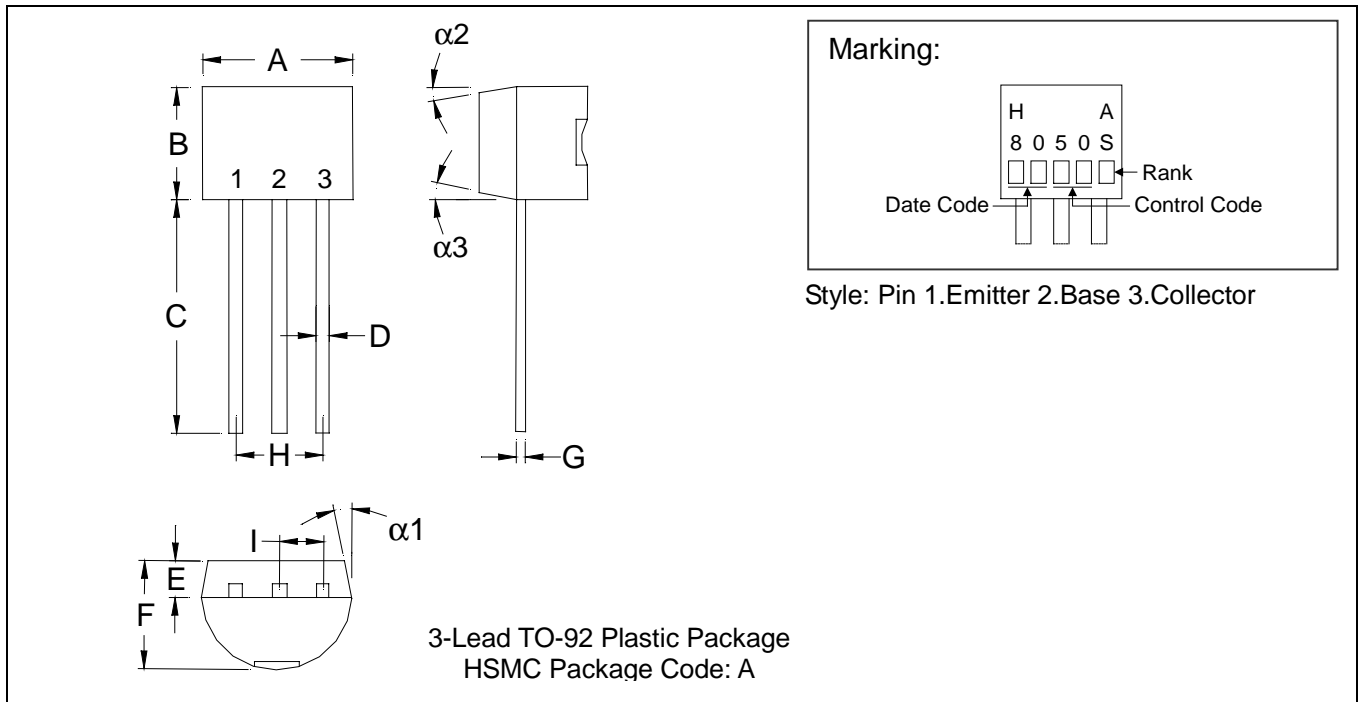
Characteristics Curve







TO-92 Dimension



*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1704	0.1902	4.33	4.83	G	0.0142	0.0220	0.36	0.56
B	0.1704	0.1902	4.33	4.83	H	-	*0.1000	-	*2.54
C	0.5000	-	12.70	-	I	-	*0.0500	-	*1.27
D	0.0142	0.0220	0.36	0.56	$\alpha 1$	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	$\alpha 2$	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	$\alpha 3$	-	*2°	-	*2°

Notes: 1. Dimension and tolerance based on our Spec. dated Apr. 25, 1996.
 2. Controlling dimension: millimeters.
 3. Maximum lead thickness includes lead finish thickness, and minimum lead thickness is the minimum thickness of base material.
 4. If there is any question with packing specification or packing method, please contact your local HSMC sales office.

Material:

- Lead: 42 Alloy; solder plating
- Mold Compound: Epoxy resin family, flammability solid burning class : UL94V-0

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