

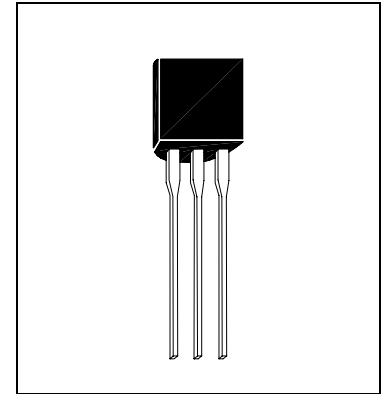


# HMPSA05

NPN SILICON TRANSISTOR

## Description

Amplifier transistor



## Absolute Maximum Ratings

- Maximum Temperatures  
Storage Temperature ..... -55 ~ +150 °C  
Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation  
Total Power Dissipation (Ta=25°C) ..... 625 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 60 V  
VCEO Collector to Emitter Voltage ..... 60 V  
VEBO Emitter to Base Voltage ..... 4 V  
IC Collector Current ..... 500 mA

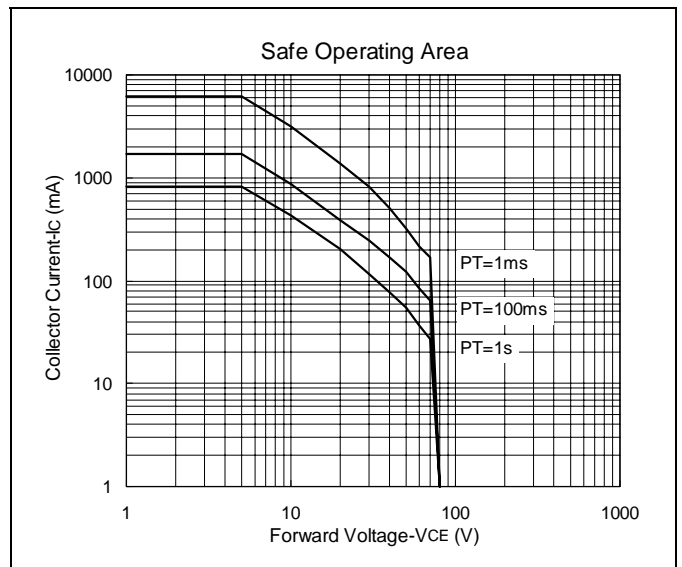
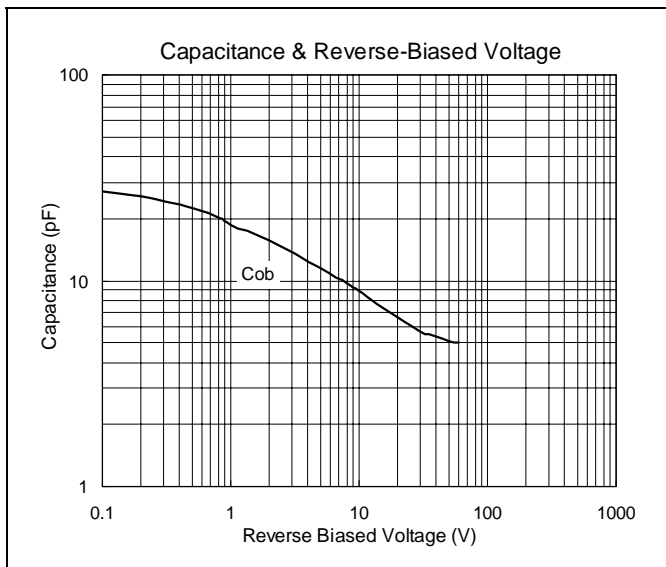
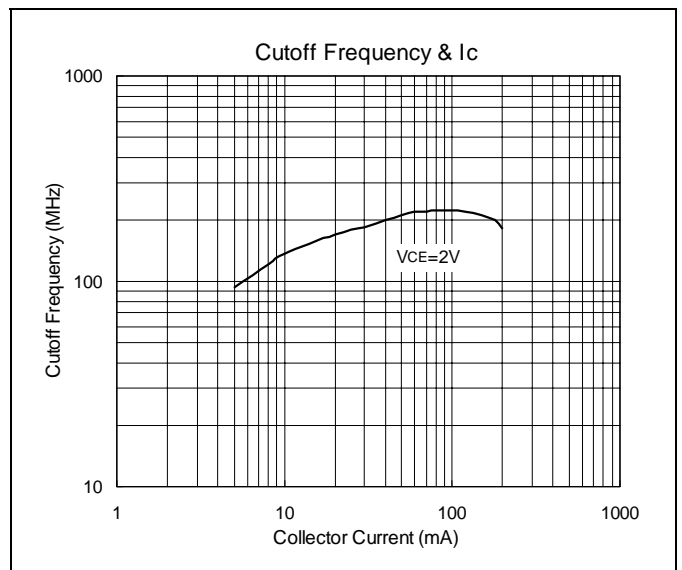
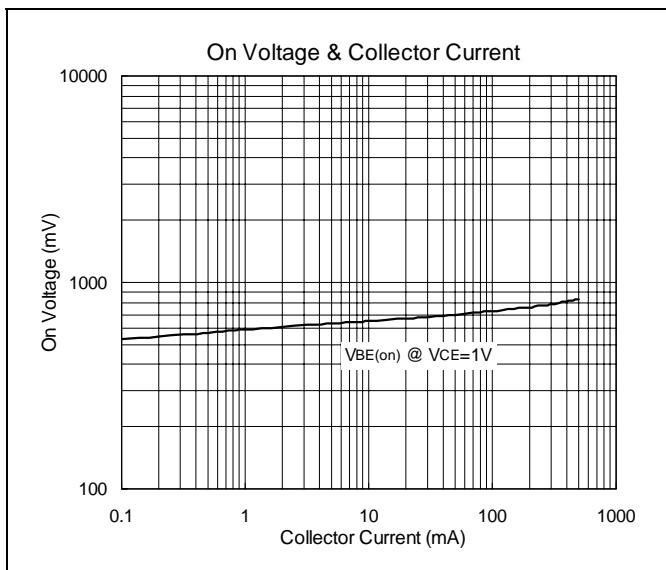
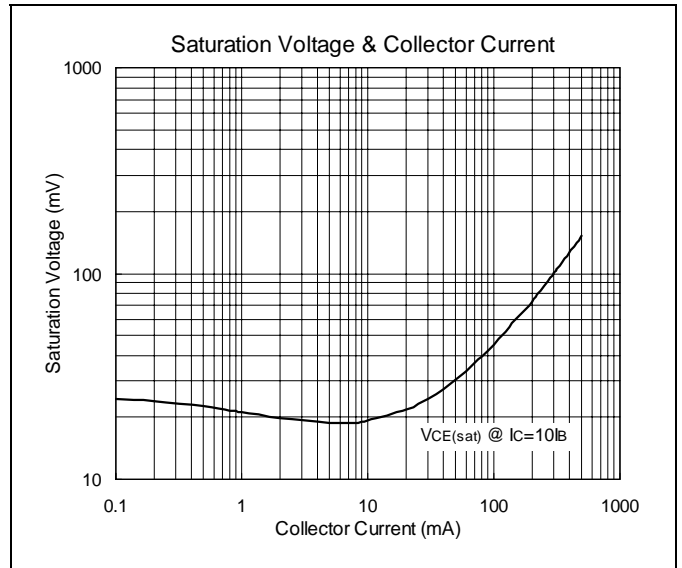
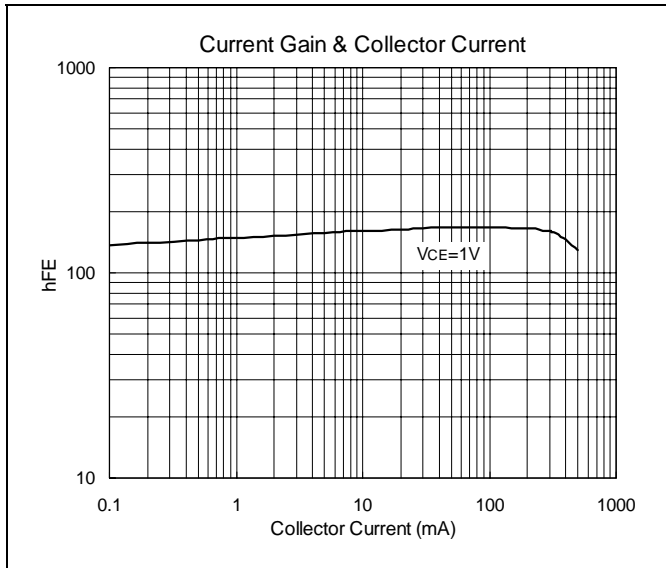
## Characteristics (Ta=25°C)

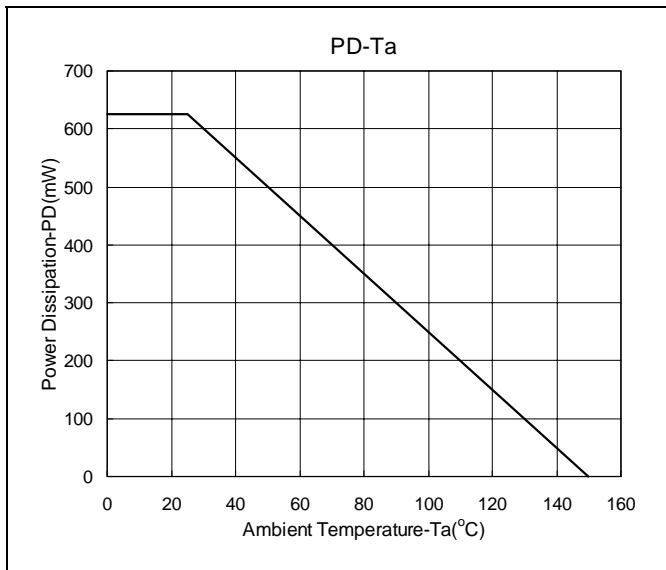
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=100uA, IE=0
BVCEO	60	-	-	V	IC=1mA, IB=0
BVEBO	4	-	-	V	IE=100uA, IC=0
ICBO	-	-	100	nA	VCB=60V, IE=0
ICEO	-	-	100	nA	VCE=60V, IB=0
*VCE(sat)	-	-	0.25	V	IC=100mA, IB=10mA
*VBE(on)	-	-	1.2	V	IC=100mA, VCE=1V
*hFE1	50	-	-		IC=10mA, VCE=1V
*hFE2	50	-	-		IC=100mA, VCE=1V
fT	100	-	-	MHz	IC=10mA, VCE=2V, f=100MHz

\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%



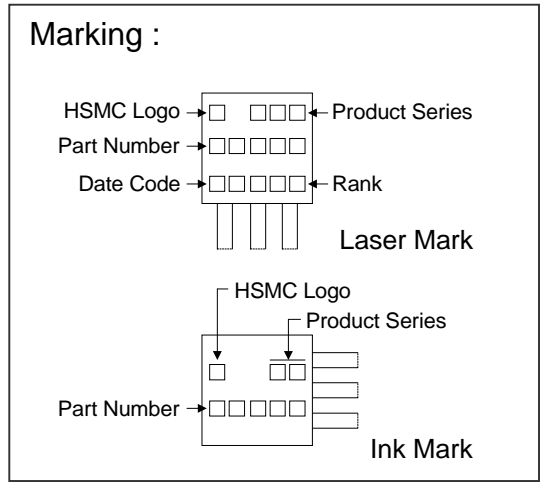
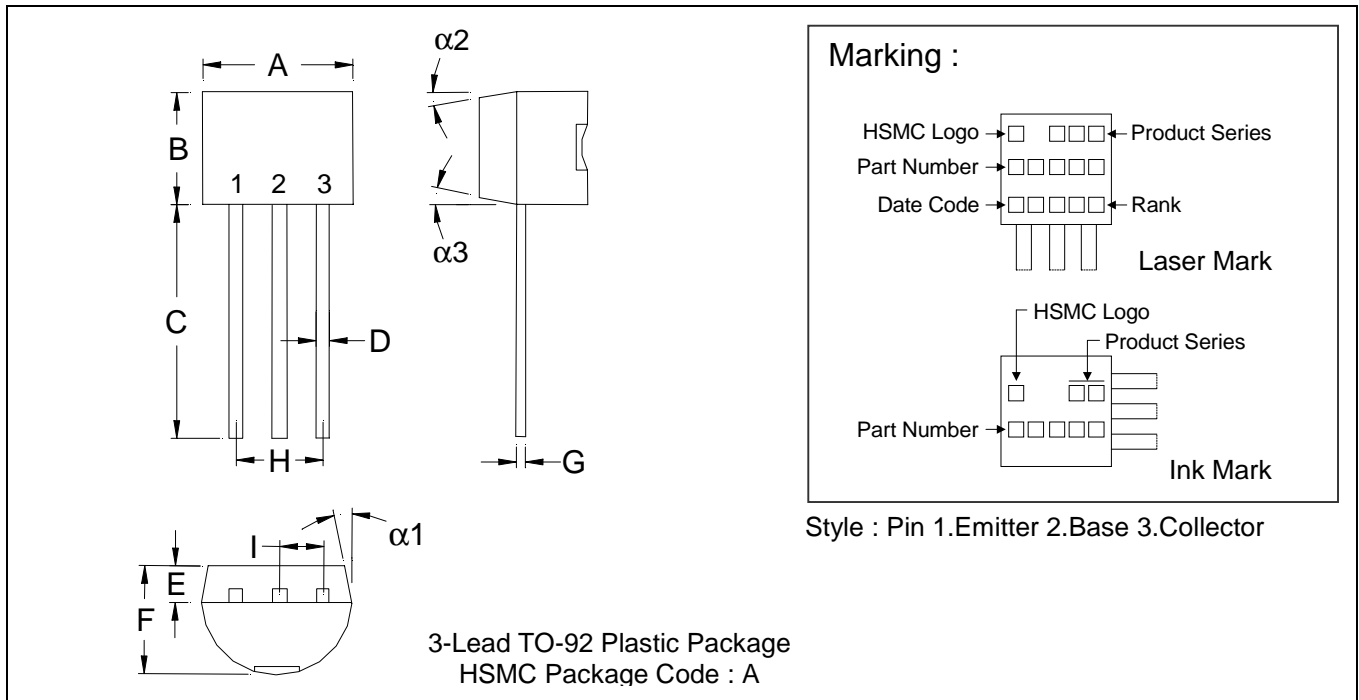
### Characteristics Curve







### TO-92 Dimension



Style : Pin 1. Emitter 2. Base 3. Collector

\*: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	α1	-	*5°	-	*5°
E	-	*0.0500	-	*1.27	α2	-	*2°	-	*2°
F	0.1323	0.1480	3.36	3.76	α3	-	*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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