



# HMPSA18

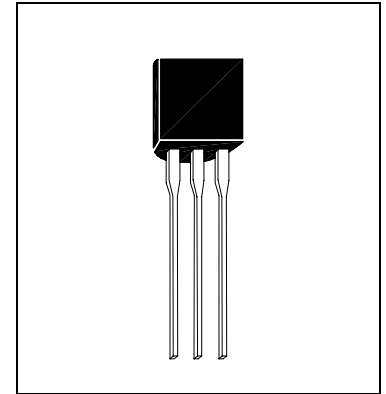
NPN SILICON TRANSISTOR

## Description

The HMPSA18 is designed for low noise stage of audio amplifiers.

## Features

- Low Noise : 1.5 dB Max.



## 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 ..... 45 V  
VCES Collector to Emitter Voltage..... 45 V  
VEBO Emitter to Base Voltage ..... 6.5 V  
IC Collector Current ..... 200 mA

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	45	-	-	V	IC=100uA, IE=0
BVCEO	45	-	-	V	IC=10mA, IB=0
VEBO	6.5	-	-	V	IE=10uA, IC=0
ICBO	-	-	50	nA	VCB=30V, IE=0
*VCE(sat)1	-	-	0.2	V	IC=10mA, IB=0.5mA
*VCE(sat)2	-	-	0.3	V	IC=50mA, IB=5mA
VBE(on)	-	0.6	0.7	V	VCE=5V, IC=1mA
*hFE1	300	-	-		VCE=5V, IC=100uA
*hFE2	500	1100	-		VCE=5V, IC=1mA
*hFE3	500	1150	1500		VCE=5V, IC=10mA
fT	100	160	-	MHz	VCE=5V, IC=1mA, f=100MHz
Cob	-	1.7	3	pF	VCB=5V, f=1MHz, IE=0

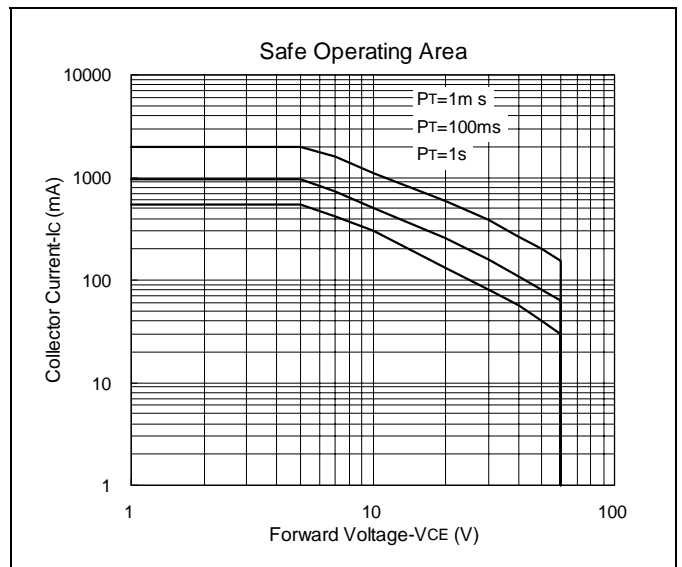
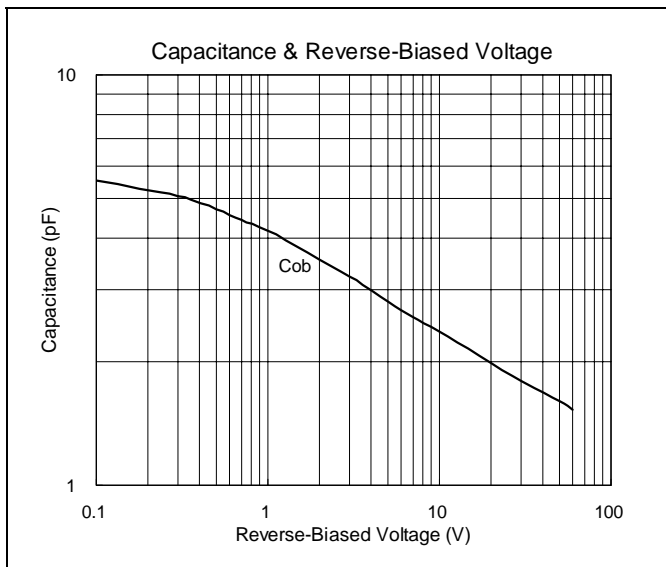
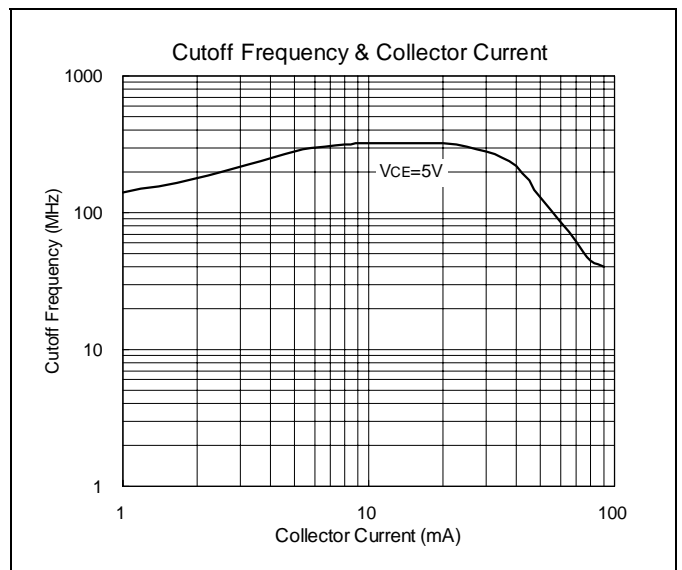
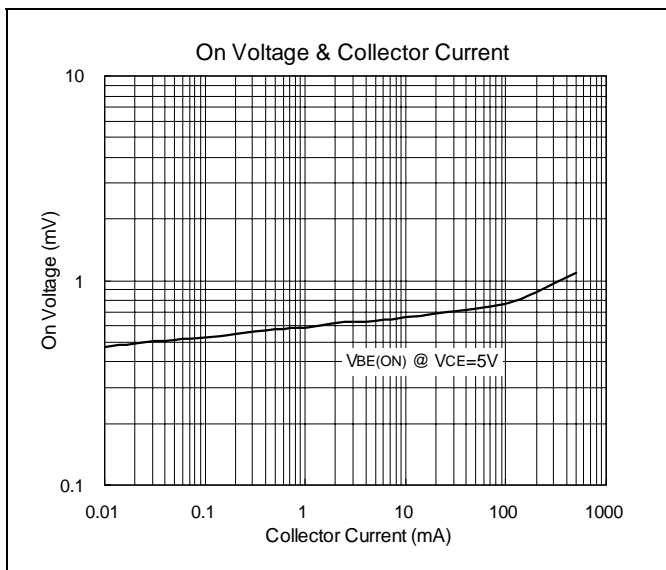
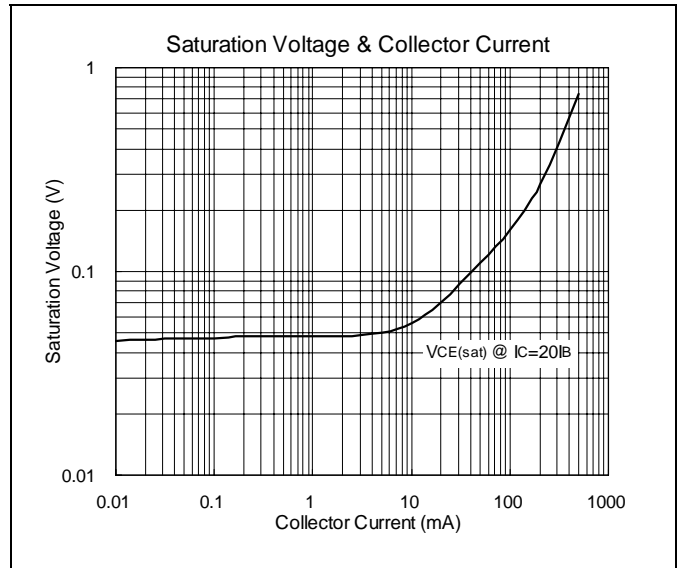
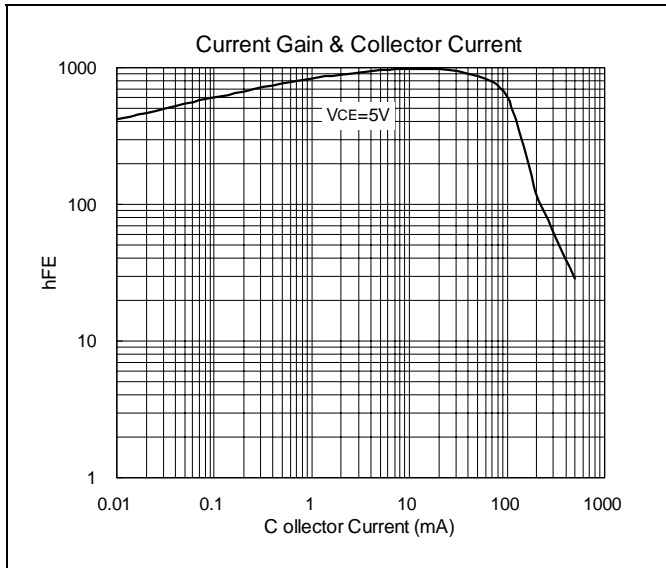
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

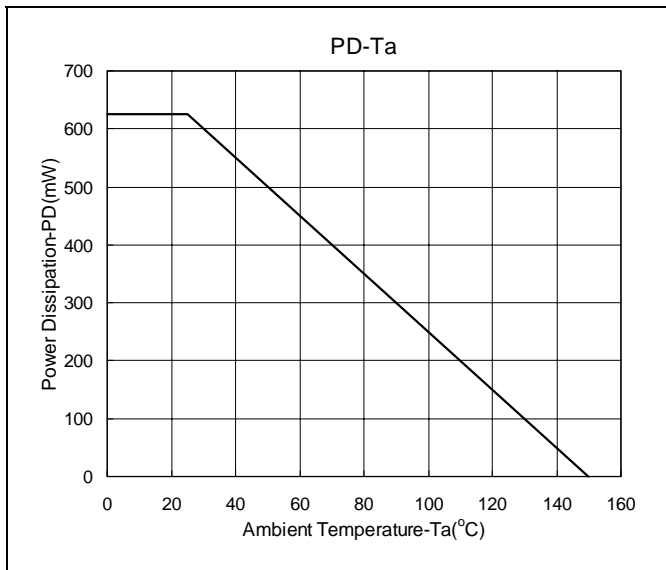
## Classification Of hFE1

Rank	A	B
hFE	>300	>500



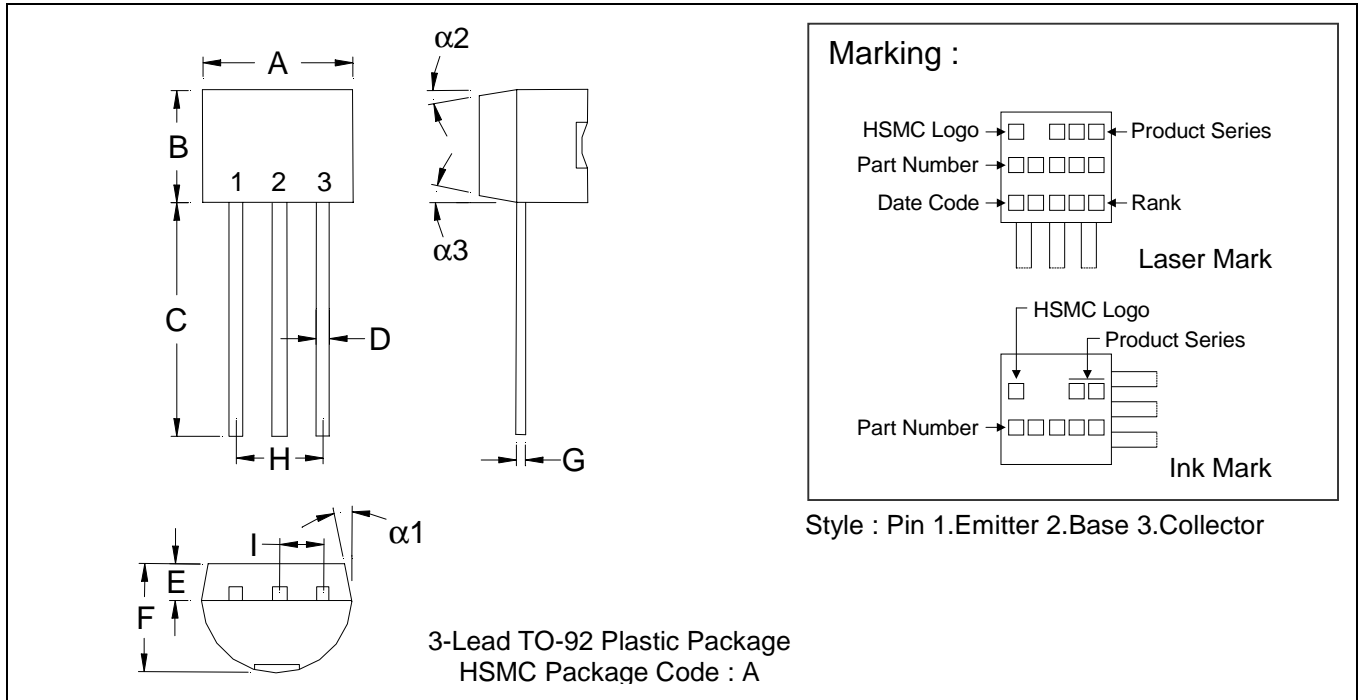
### Characteristics Curve







### 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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