

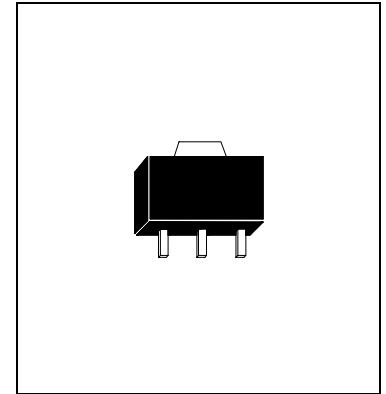


# HM772A

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HM772A is designed for use in output stage of amplifier, voltage regulator, DC-DC converter and driver.



## Absolute Maximum Ratings

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) ..... 1 W (Note1)
  - Total Power Dissipation (Ta=25°C)..... 2 W (Note2)
  - Total Power Dissipation (Ta=25°C)..... 1.5 W (Note3)
- Maximum Voltages and Currents (Ta=25°C)
  - V<sub>CB0</sub> Collector to Base Voltage ..... -60 V
  - V<sub>CEO</sub> Collector to Emitter Voltage ..... -50 V
  - V<sub>EB0</sub> Emitter to Base Voltage ..... -5 V
  - I<sub>C</sub> Collector Current (continuous) ..... -3 A
  - I<sub>C</sub> Collector Current (pulse) ..... -7 A (Note4)

Note1: When tested in free air condition, without heat sinking.

Note2: When mounted on a 40X40X1mm ceramic board.

Note3: Printed circuit board 2mm thick, collector plating 1cm square or larger.

Note4: Single pulse PW=1ms

## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
B <sub>V</sub> C <sub>B0</sub>	-60	-	-	V	I <sub>C</sub> =-100uA
B <sub>V</sub> C <sub>E0</sub>	-50	-	-	V	I <sub>C</sub> =-1mA
B <sub>V</sub> E <sub>B0</sub>	-5	-	-	V	I <sub>E</sub> =-10uA
I <sub>C</sub> B <sub>0</sub>	-	-	-1	uA	V <sub>CB</sub> =-30V
I <sub>E</sub> B <sub>0</sub>	-	-	-1	uA	V <sub>EB</sub> =-3V
*V <sub>CE</sub> (sat)	-	-0.3	-0.5	V	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A
*V <sub>BE</sub> (sat)	-	-1	-2	V	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A
*h <sub>FE1</sub>	30	-	-		V <sub>CE</sub> =-2V, I <sub>C</sub> =-20mA
*h <sub>FE2</sub>	100	160	500		V <sub>CE</sub> =-2V, I <sub>C</sub> =-1A
f <sub>T</sub>	-	80	-	MHz	V <sub>CE</sub> =-5V, I <sub>C</sub> =-100mA, f=100MHz
C <sub>ob</sub>	-	55	-	pF	V <sub>CB</sub> =-10V, f=1MHz

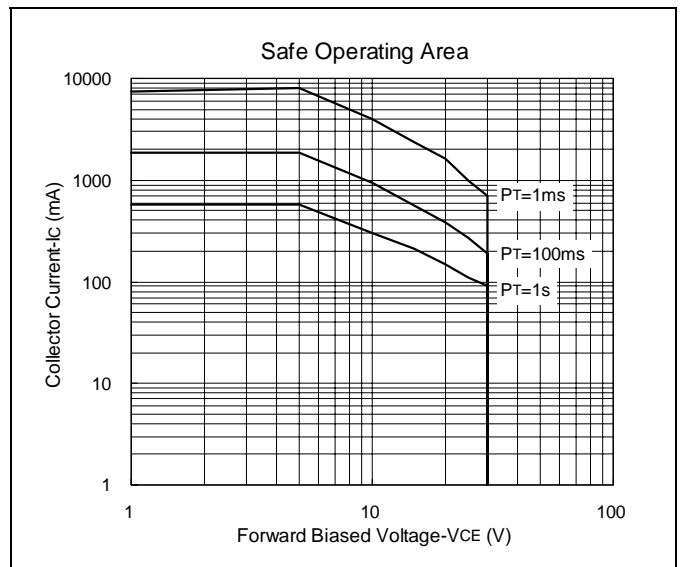
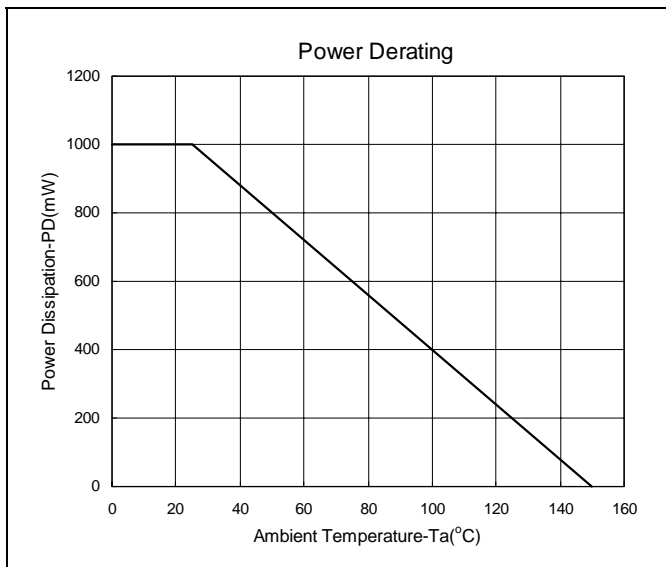
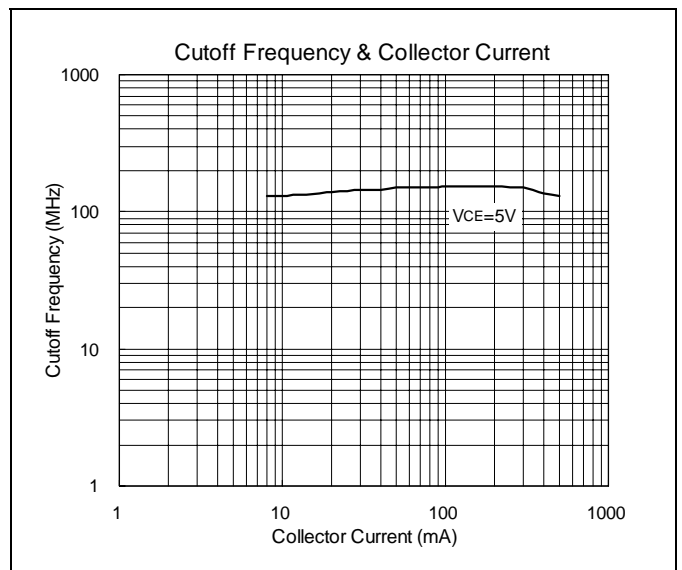
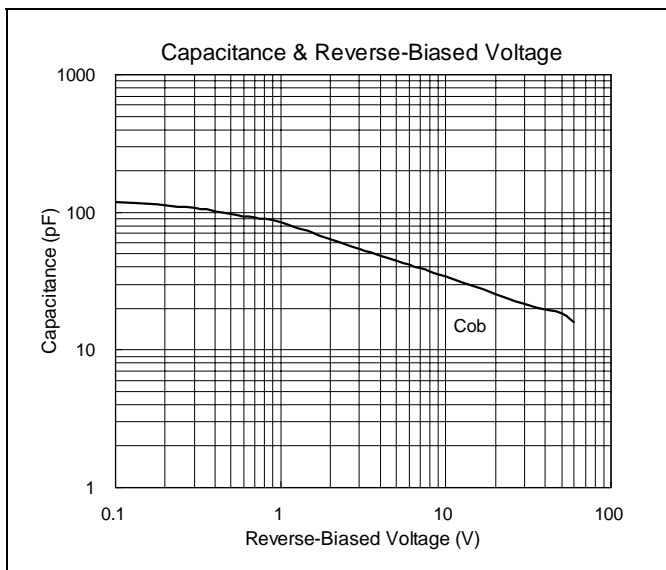
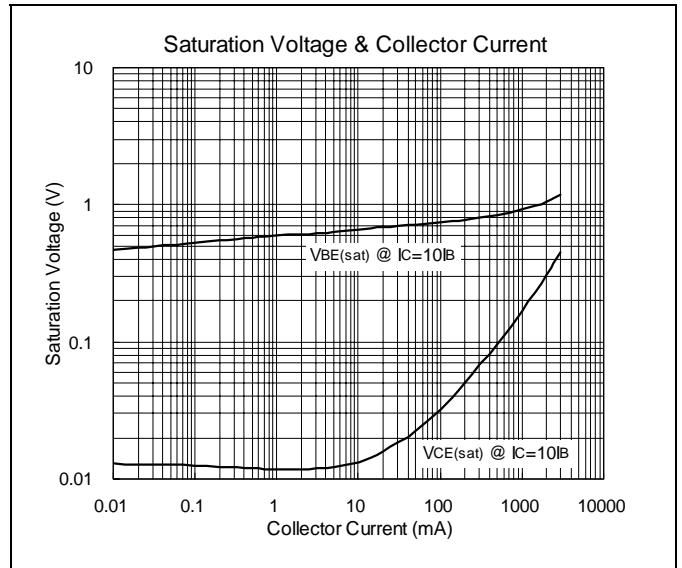
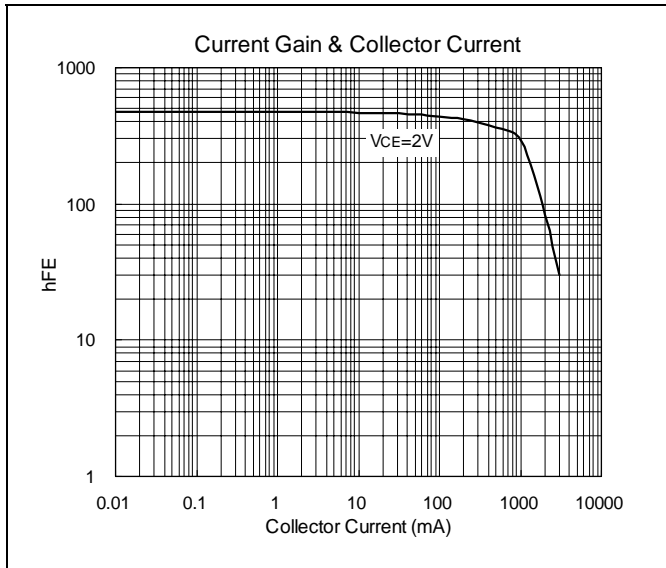
\*Pulse Test : Pulse Width ≤380us, Duty Cycle≤2%

## Classification Of h<sub>FE2</sub>

Rank	Q	P	E
Range	100-200	160-320	250-500



### Characteristics Curve





### SOT-89 Dimension

3-Lead SOT-89 Plastic Surface Mounted Package  
HSMC Package Code : M

Marking :

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

\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1732	0.1811	4.40	4.60	F	0.0583	0.0598	1.48	1.52
B	0.1594	0.1673	4.05	4.25	G	0.1165	0.1197	2.96	3.04
C	0.0591	0.0663	1.50	1.70	H	0.0551	0.0630	1.40	1.60
D	0.0945	0.1024	2.40	2.60	I	0.0138	0.0161	0.35	0.41
E	0.0141	0.0201	0.36	0.51					

Notes : 1.Dimension and tolerance based on our Spec. dated May. 05,1996.  
 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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