

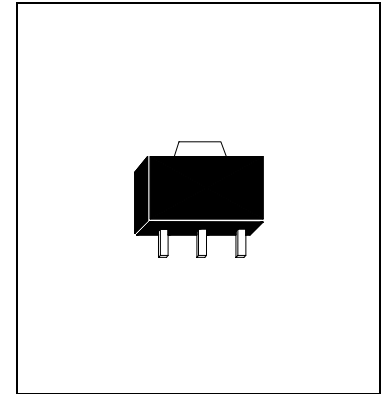


# HM42

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HM42 is designed for application as a video output to drive color CRT, or as a dialer circuit in electronics telephone.



## 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
- Maximum Voltages and Currents (Ta=25°C)  
 VCBO Collector to Base Voltage ..... 300 V  
 VCEO Collector to Emitter Voltage ..... 300 V  
 VEBO Emitter to Base Voltage ..... 6 V  
 IC Collector Current ..... 500 mA

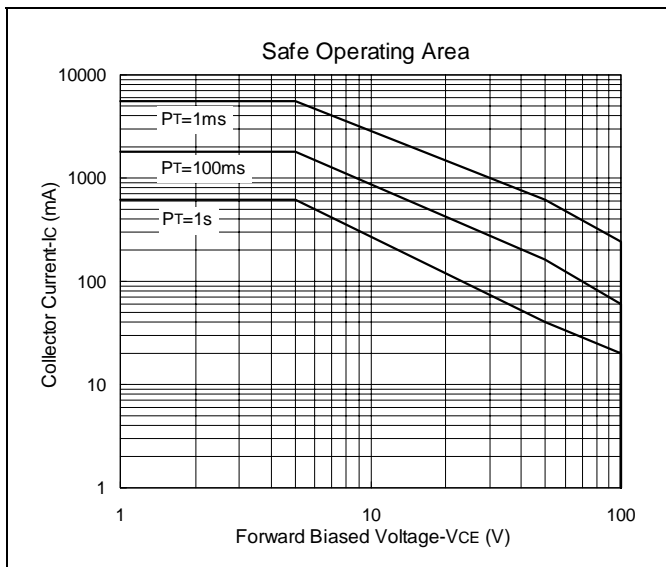
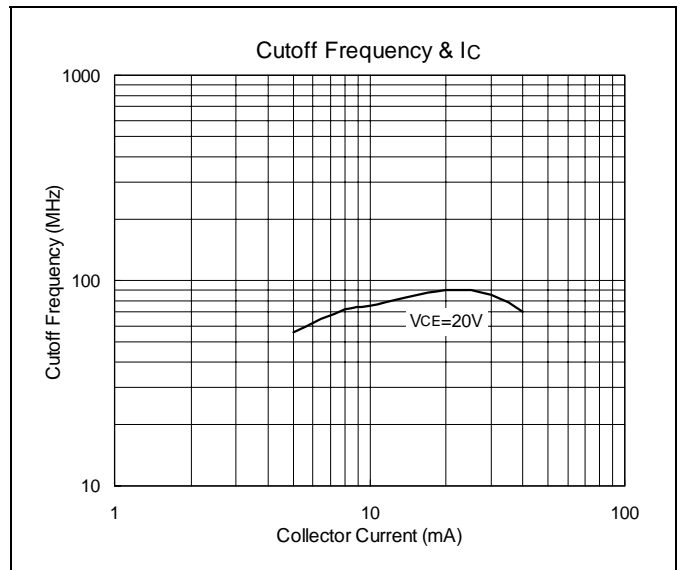
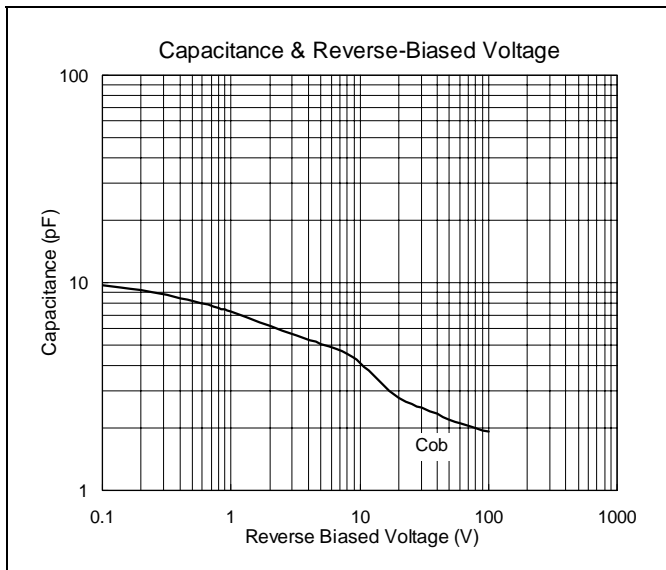
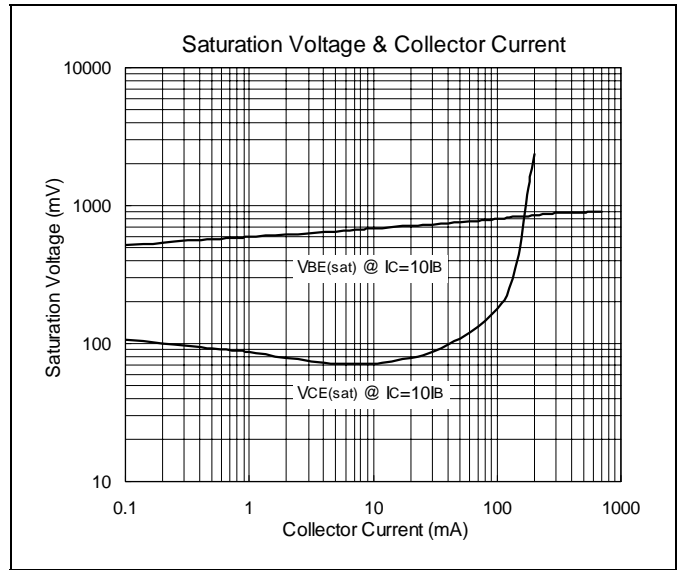
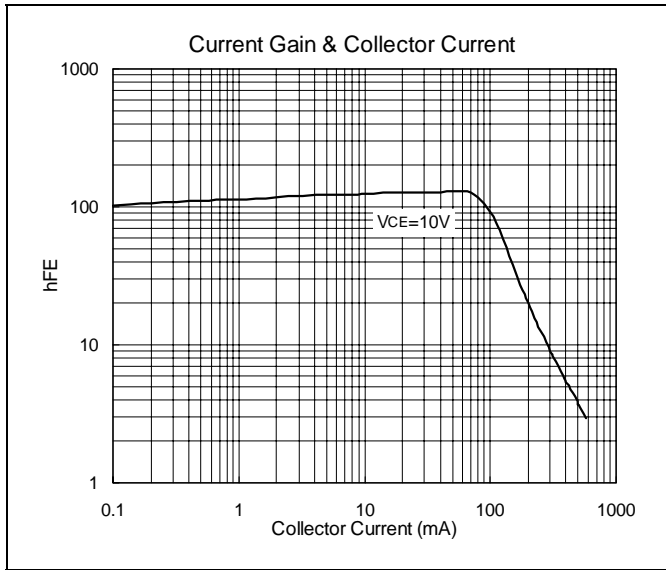
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	300	-	-	V	IC=100uA
BVCEO	300	-	-	V	IC=1mA
BVEBO	6	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCB=260V
IEBO	-	-	100	nA	VEB=6V
*VCE(sat)	-	-	500	mV	IC=20mA, IB=2mA
*VBE(sat)	-	-	900	mV	IC=20mA, IB=2mA
*hFE1	25	-	-		VCE=10V, IC=1mA
*hFE2	40	-	-		VCE=10V, IC=10mA
*hFE3	40	-	-		VCE=10V, IC=30mA
fT	50	-	-	MHz	VCE=20V, IC=10mA, f=100MHz
Cob	-	3	-	pF	VCB=20V

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



### Characteristics Curve





### SOT-89 Dimension

**Marking :**

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

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

\*: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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