



# HMBT5088

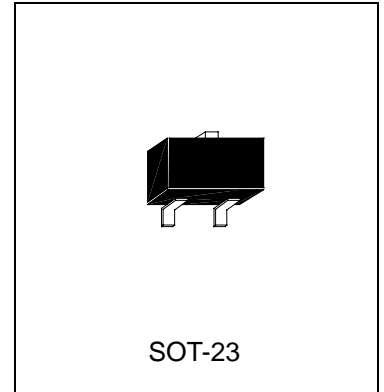
NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HMBT5088 is designed for low noise, high gain, general purpose amplifier applications.

## Absolute Maximum Ratings

- Maximum Temperatures  
Storage Temperature ..... -55 ~ +150 °C  
Junction Temperature..... +150 °C Maximum
- Maximum Power Dissipations  
Total Power Dissipation (Ta=25°C) ..... 225 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 35 V  
VCEO Collector to Emitter Voltage..... 30 V  
VEBO Emitter to Base Voltage ..... 4.5 V  
IC Collector Current ..... 50 mA



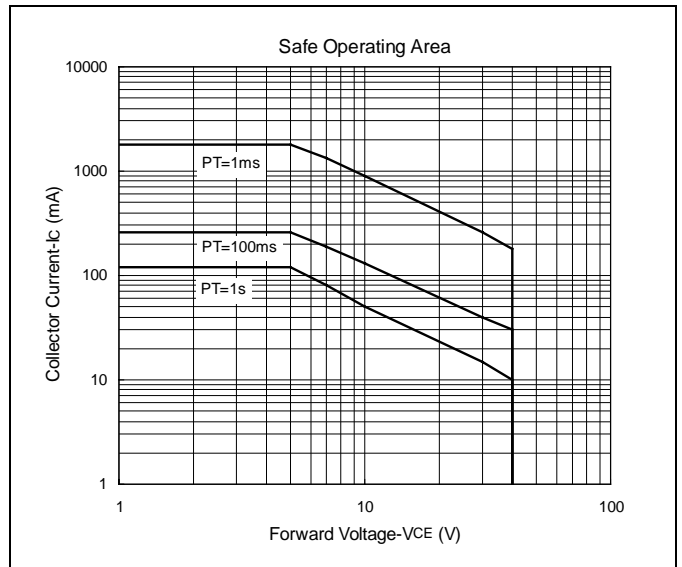
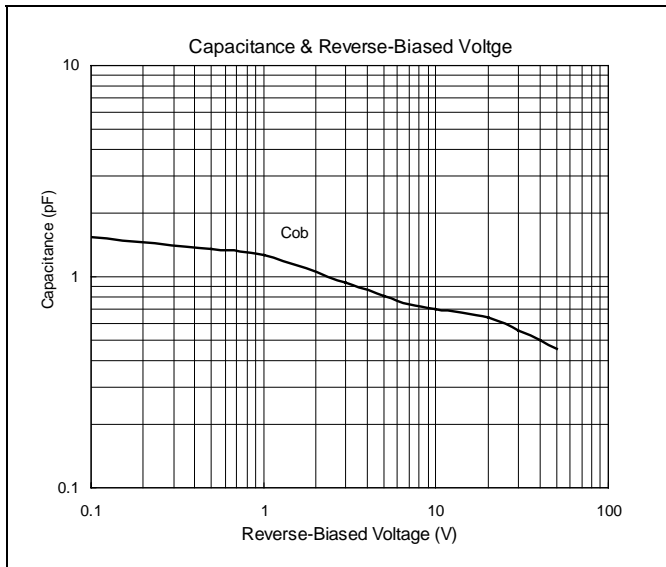
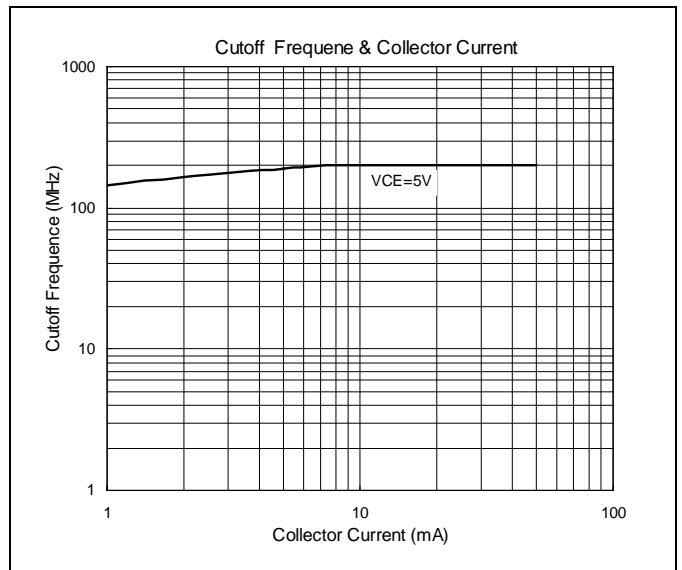
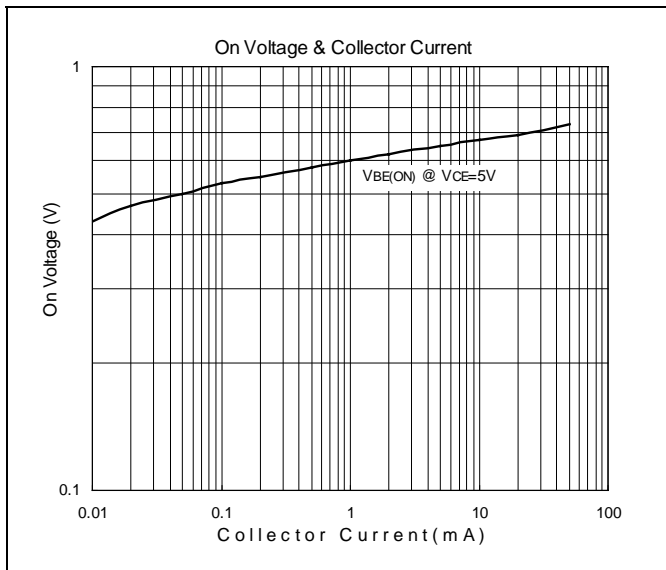
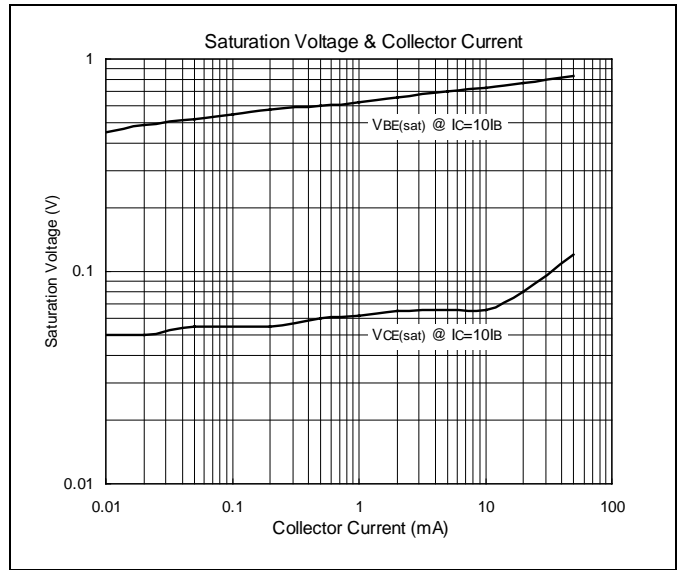
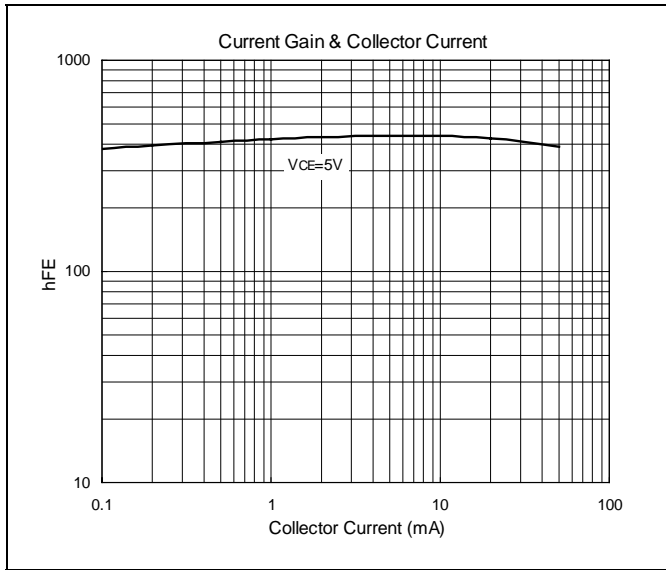
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	35	-	-	V	IC=100uA
BVCEO	30	-	-	V	IC=1mA
BVEBO	4.5	-	-	V	IE=10uA
ICBO	-	-	50	nA	VCB=20V
IEBO	-	-	50	nA	VEB=3V
*VCE(sat)	-	-	500	mV	IC=10mA, IB=1mA
*VBE(sat)	-	-	800	mV	IC=10mA, IB=1mA
*hFE1	300	-	900		VCE=5V, IC=0.1mA
*hFE2	350	-	-		VCE=5V, IC=1mA
*hFE3	300	-	-		VCE=5V, IC=10mA
fT	50	-	-	MHz	VCE=5V, IC=0.5mA, f=20MHz
Cob	-	-	4	pF	VCB=5V, f=1MHz, IE=0

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

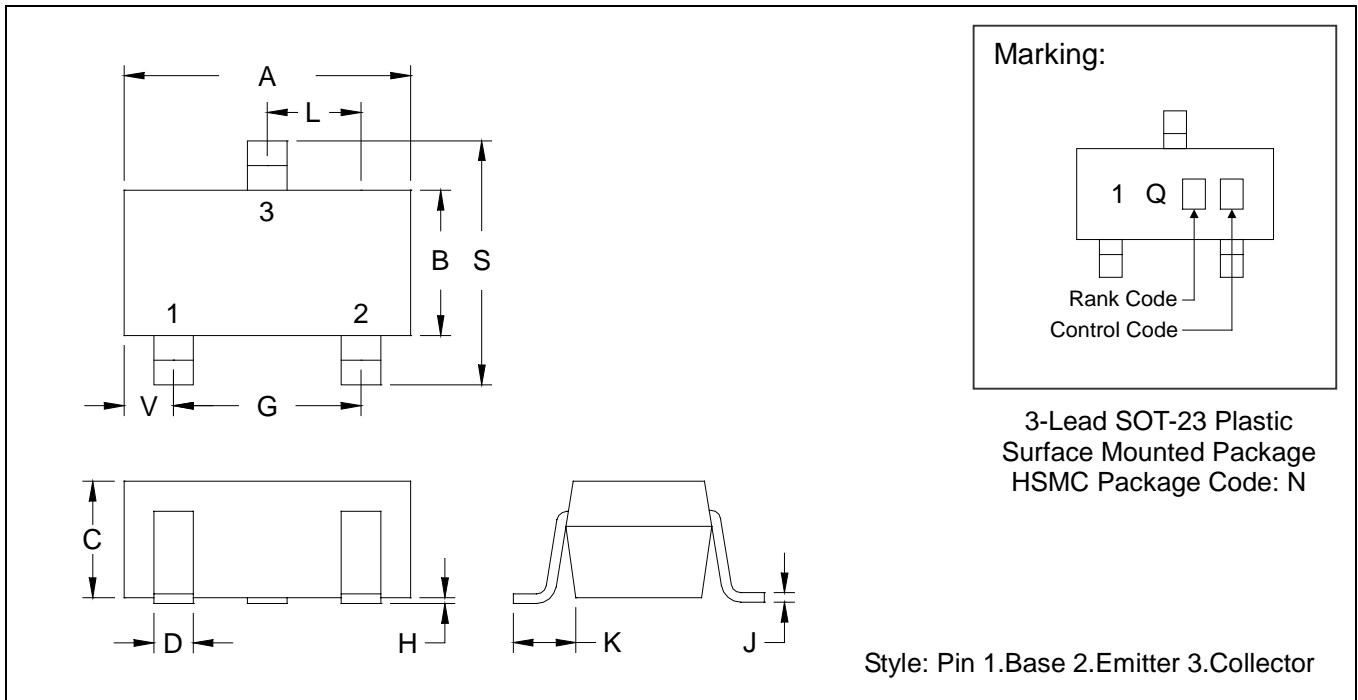


### Characteristics Curve





### SOT-23 Dimension



\*: Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.1204	2.80	3.04	J	0.0034	0.0070	0.085	0.177
B	0.0472	0.0630	1.20	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0335	0.0512	0.89	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0830	0.1083	2.10	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	0.0005	0.0040	0.013	0.10					

- Notes: 1.Dimension and tolerance based on our Spec. dated Sep. 07,1997.  
 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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