

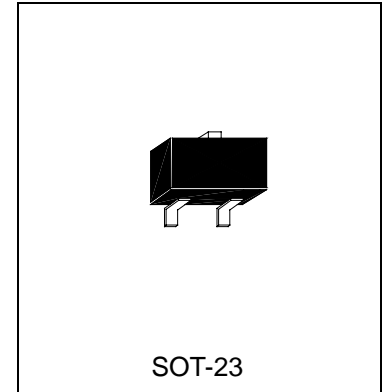


# HMBT6429

NPN EPITAXIAL PLANAR 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) ..... 225 mW
- Maximum Voltages and Currents (Ta=25°C)  
 VCBO Collector to Base Voltage ..... 55 V  
 VCEO Collector to Emitter Voltage ..... 45 V  
 VEBO Emitter to Base Voltage ..... 6 V  
 IC Collector Current ..... 200 mA

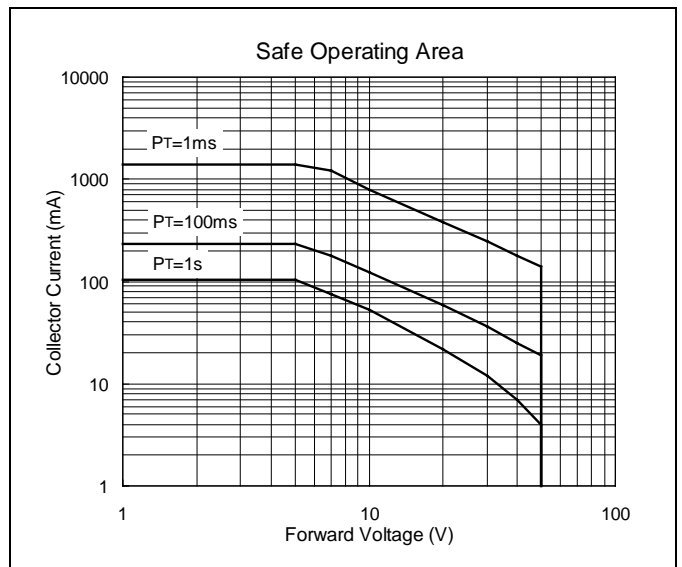
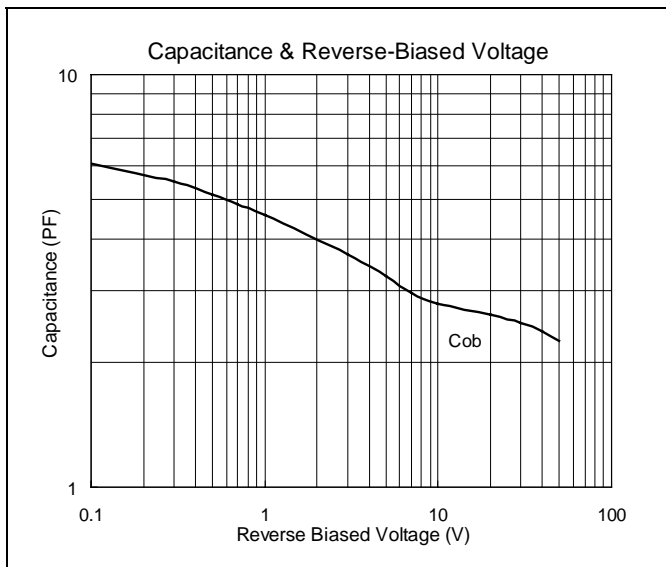
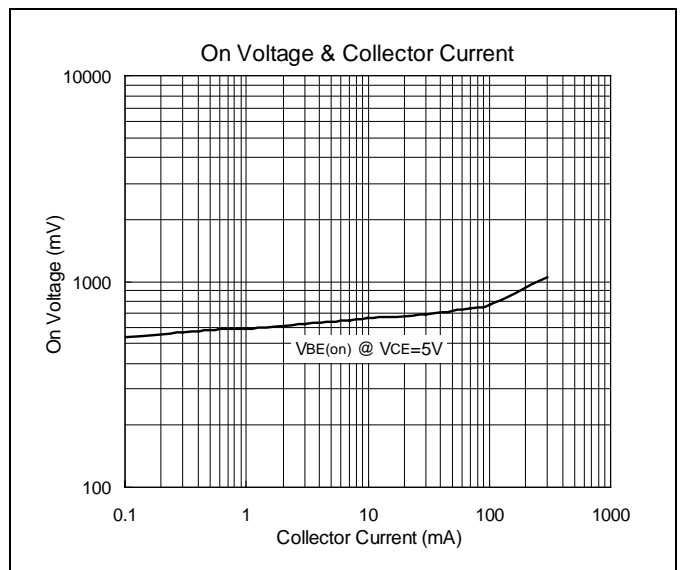
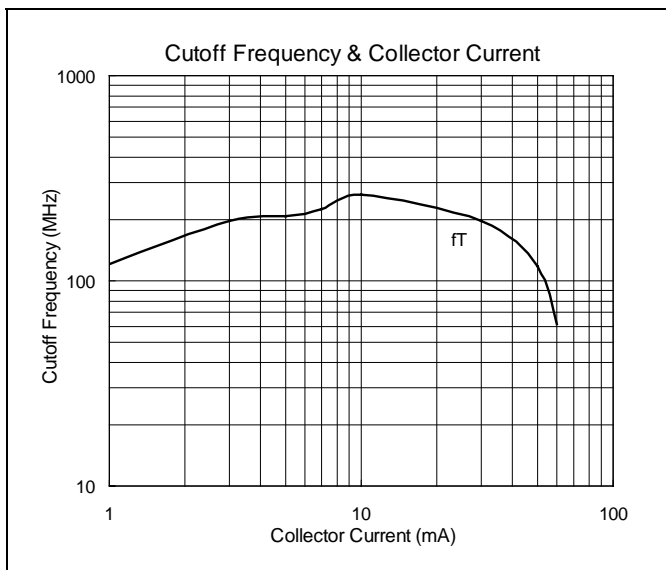
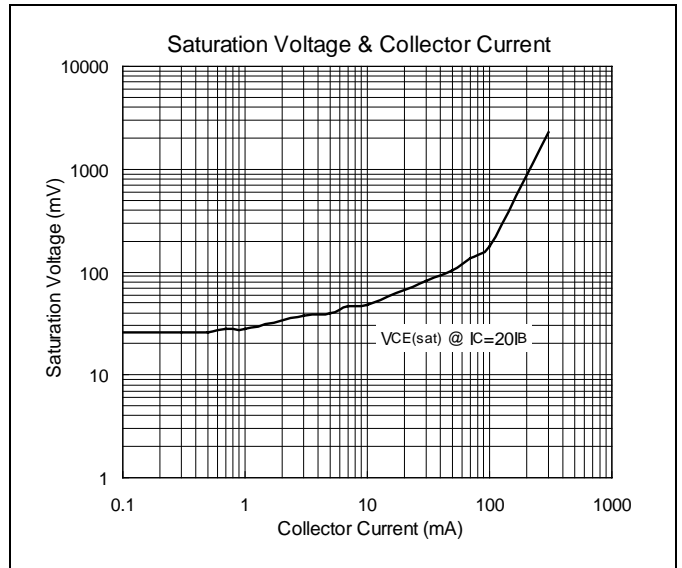
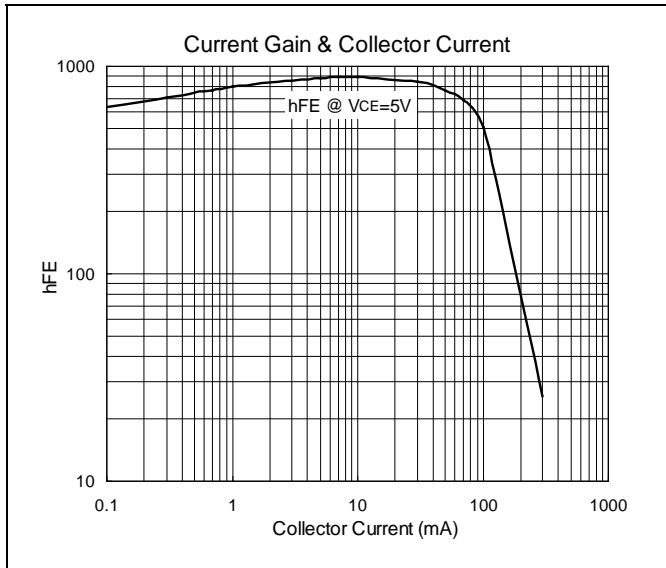
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	55	-	-	V	IC=100uA
BVCEO	45	-	-	V	IC=1mA
ICBO	-	-	10	nA	VCB=30V
ICEO	-	-	100	nA	VCE=30V
IEBO	-	-	10	nA	VEB=5V
*VCE(sat)1	-	-	200	mV	IC=10mA, IB=0.5mA
*VCE(sat)2	-	-	600	mV	IC=100mA, IB=5mA
VBE(on)	560	-	660	mV	VCE=5V, IC=1mA
*hFE1	500	-	-		VCE=5V, IC=0.01mA
*hFE2	500	-	1250		VCE=5V, IC=0.1mA
*hFE3	500	-	-		VCE=5V, IC=1mA
*hFE4	500	-	-		VCE=5V, IC=10mA
fT	100	-	700	MHz	VCE=5V, IC=1mA, f=100MHz
Cob	-	-	3.0	pF	VCB=10V, f=1MHz

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

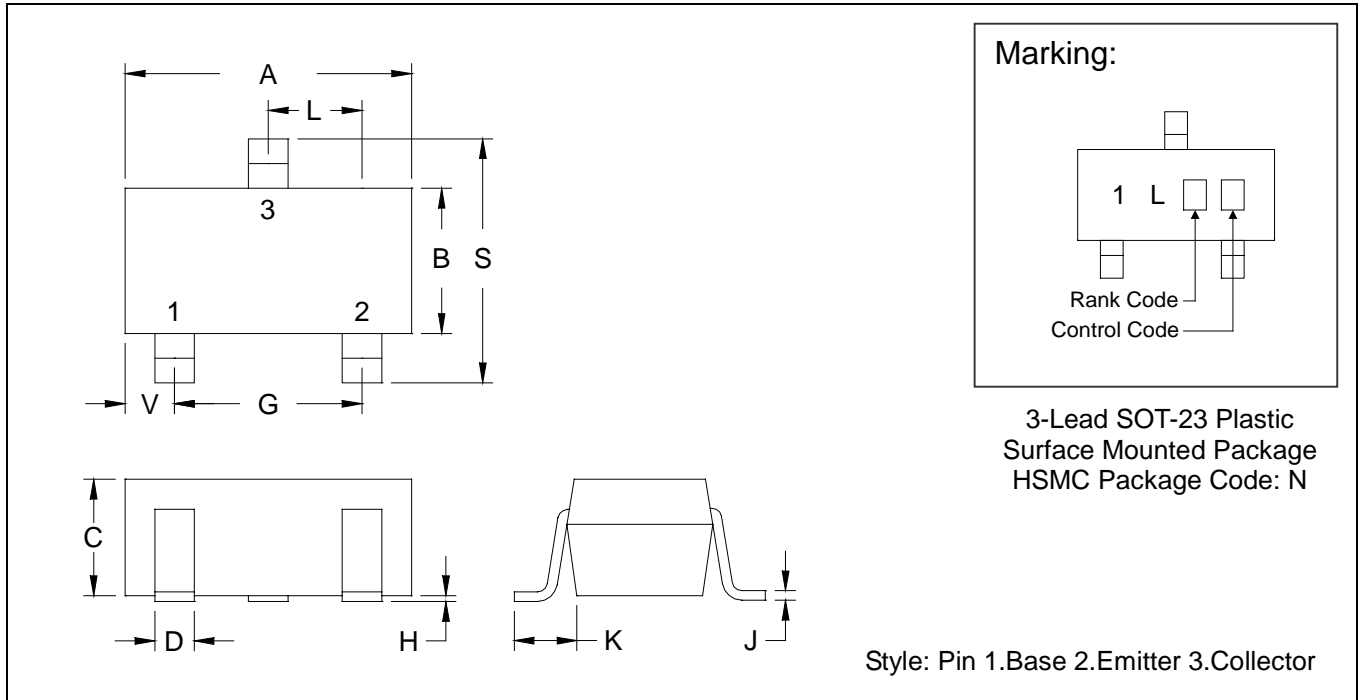


### Characteristics Curve





### 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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