



HMBT2222A

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HMBT2222A is designed for general purpose amplifier and high-speed switching, medium-power switching applications.

Features

- High frequency current gain
- High Speed Switching

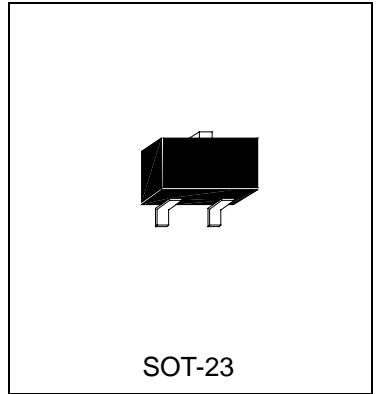
Absolute Maximum Ratings

- Maximum Temperatures
 Storage Temperature -55 ~ +150 °C
 Junction Temperature..... +150 °C
- Maximum Power Dissipation
 Total Power Dissipation (Ta=25°C) 225 mW
- Maximum Voltages and Currents (Ta=25°C)
 VCBO Collector to Base Voltage 75 V
 VCEO Collector to Emitter Voltage..... 40 V
 VEBO Emitter to Base Voltage..... 6 V
 IC Collector Current..... 600 mA

Characteristics (Ta=25°C)

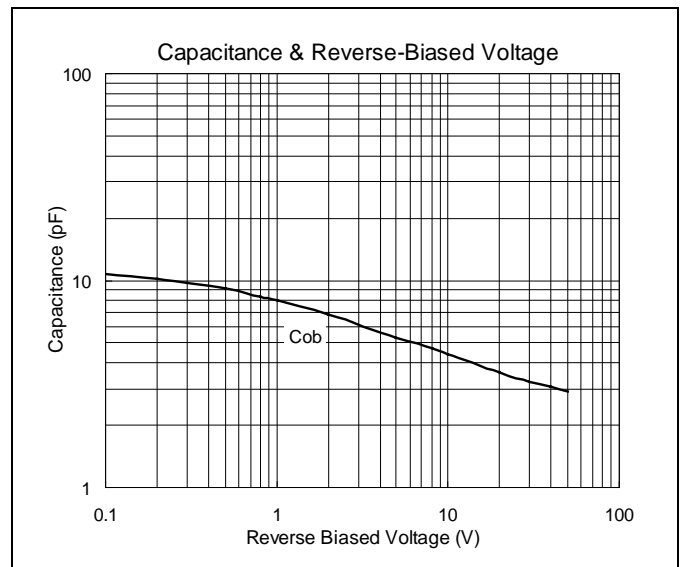
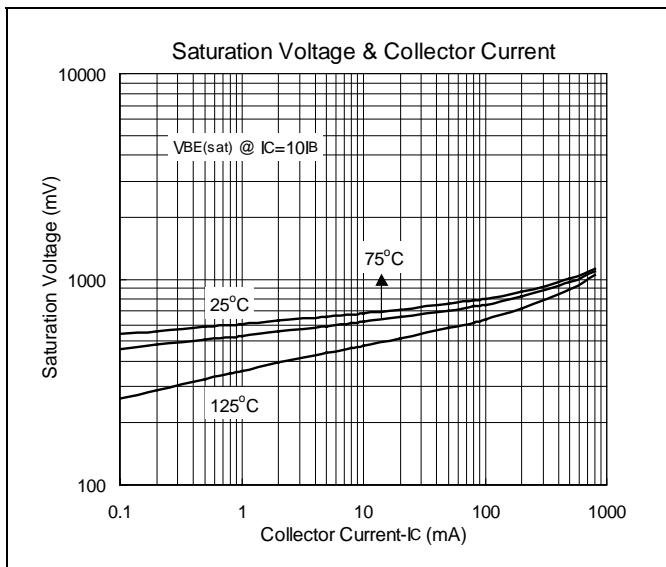
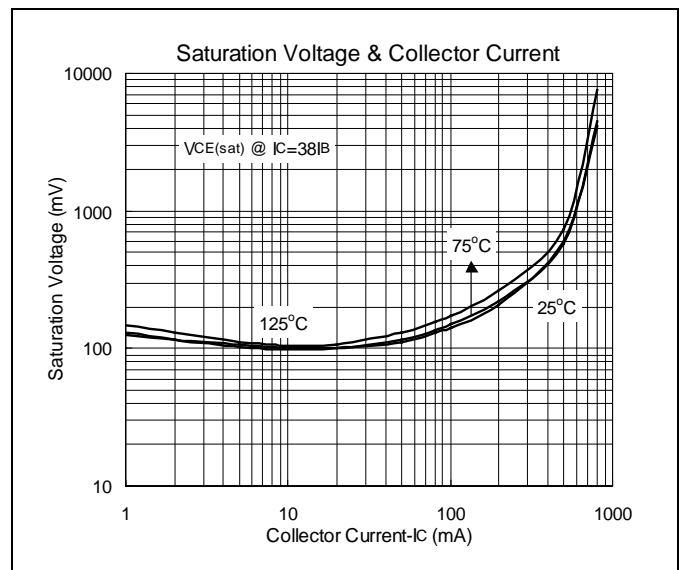
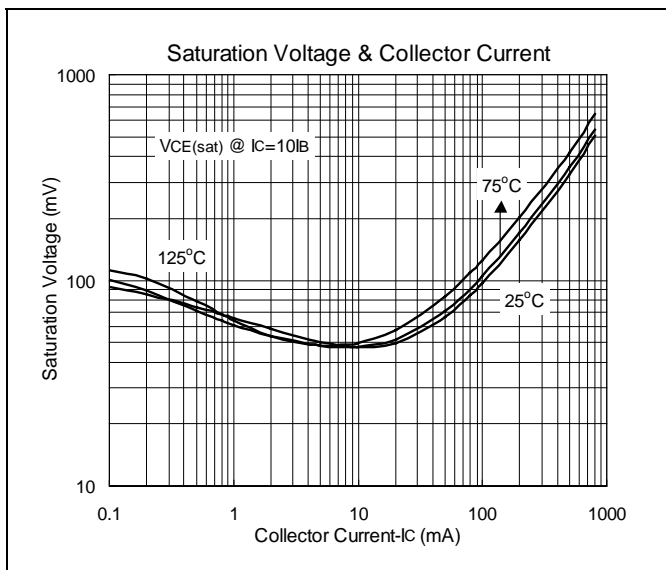
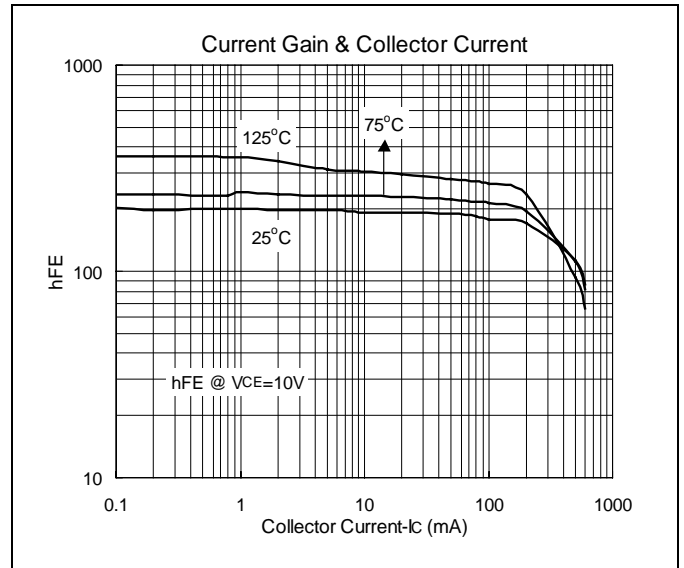
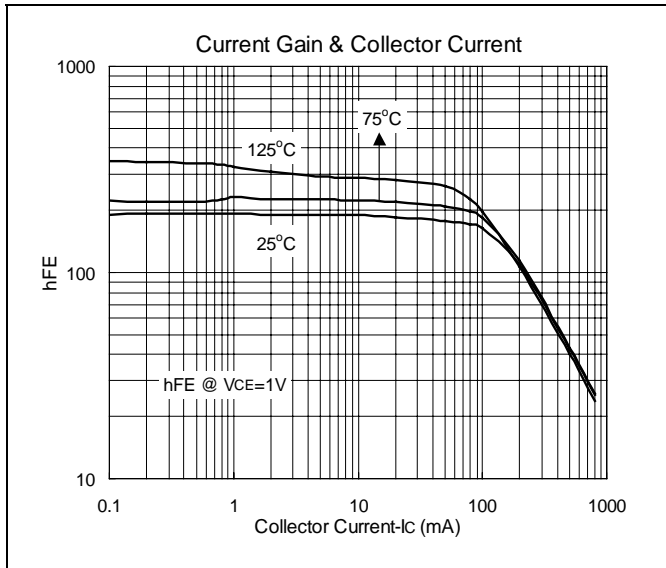
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	75	-	-	V	IC=10uA
BVCEO	40	-	-	V	IC=10mA
BVEBO	6	-	-	V	IC=10uA
ICBO	-	-	10	nA	VCB=60V
ICEX	-	-	10	nA	VCE=60V, VEB(OFF)=3V
IEBO	-	-	10	nA	VEB=3V
*VCE(sat)1	-	-	500	mV	IC=380mA, IB=10mA
*VCE(sat)2	-	-	1.0	V	IC=500mA, IB=50mA
*VBE(sat)1	-	-	1.2	V	IC=150mA, IB=15mA
*VBE(sat)2	-	-	2.0	V	IC=500mA, IB=50mA
*hFE1	35	-	-		VCE=10V, IC=100uA
*hFE2	50	-	-		VCE=10V, IC=1mA
*hFE3	75	-	-		VCE=10V, IC=10mA
*hFE4	100	-	300		VCE=10V, IC=150mA
*hFE5	40	-	-		VCE=10V, IC=500mA
fT	300	-	-	MHz	VCB=20V, IC=20mA, f=100MHz

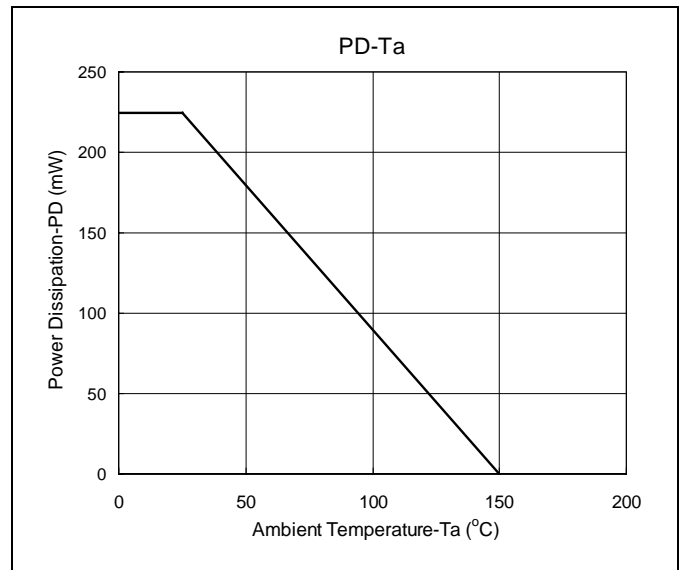
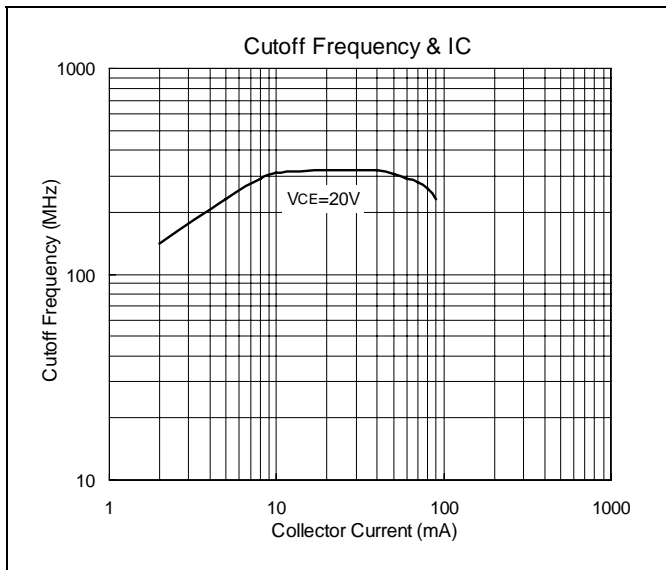
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%





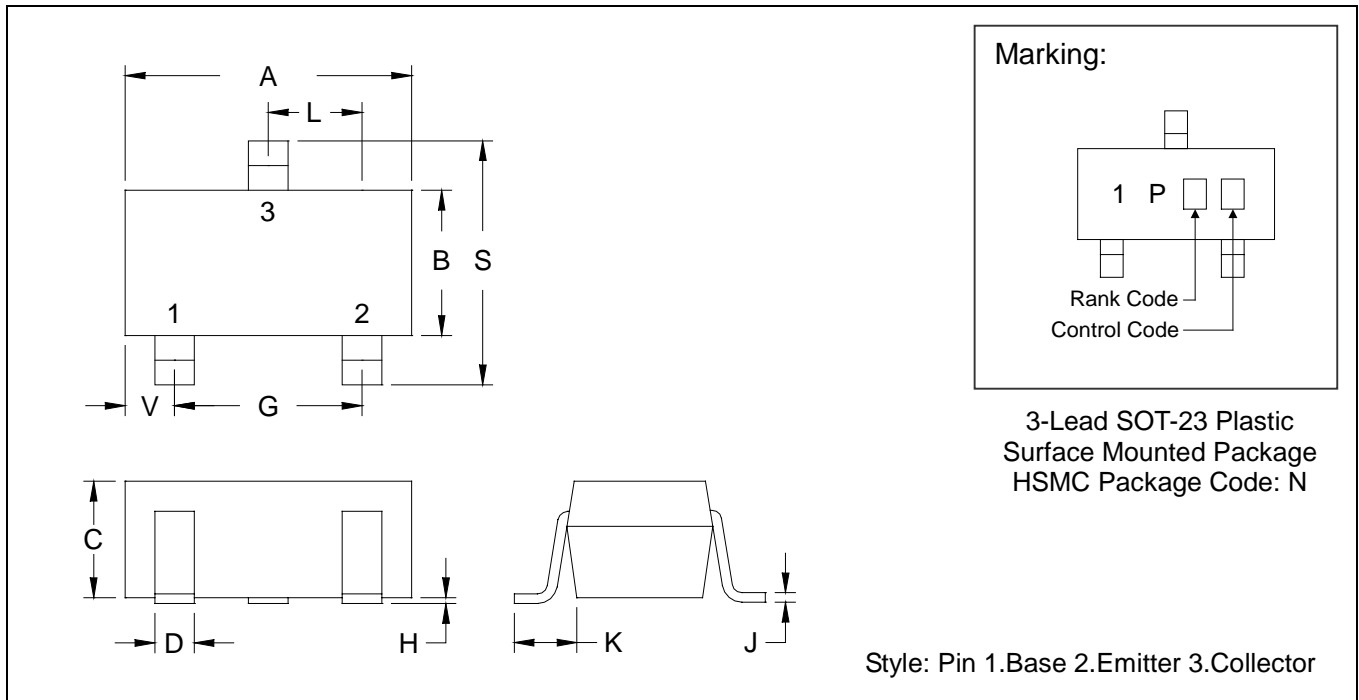
Characteristics Curve







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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