

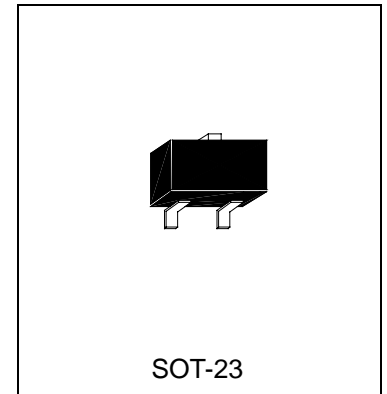


# HMBT5401

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HMBT5401 is designed for general purpose applications requiring high breakdown voltages.



## Features

- High Collector-Emitter Breakdown Voltage (BVCEO=150V@ IC=1mA)
- Complements to NPN Type HMBT5551

## 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 ..... -160 V  
 VCEO Collector to Emitter Voltage ..... -150 V  
 VEBO Emitter to Base Voltage ..... -5 V  
 IC Collector Current..... -600 mA

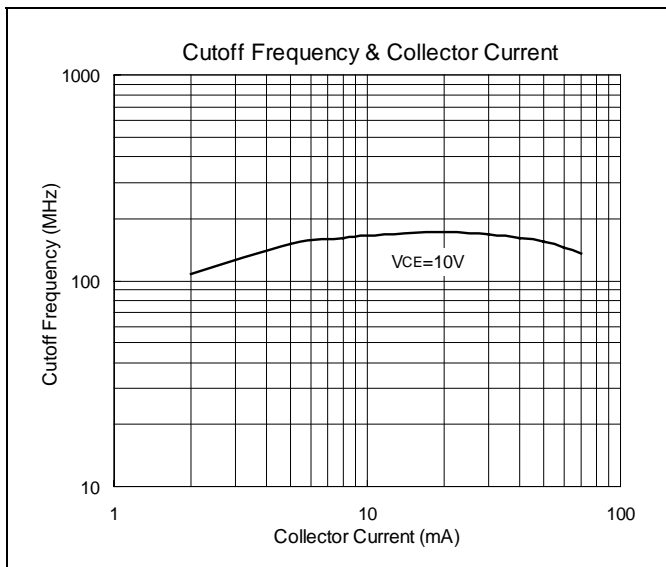
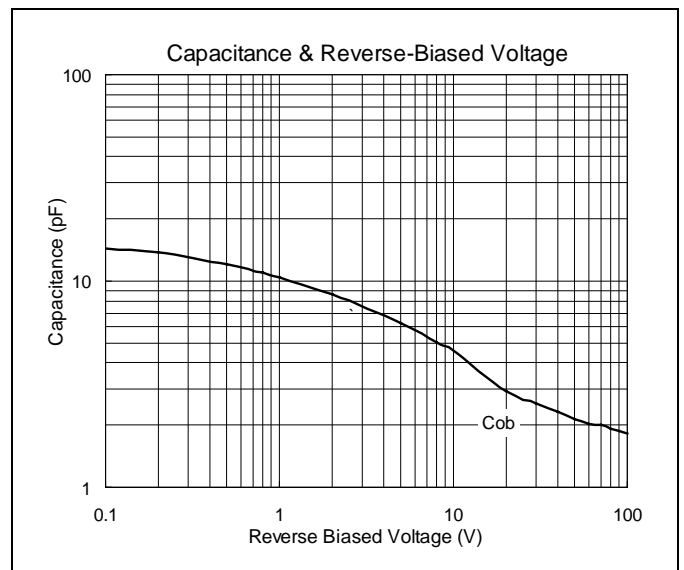
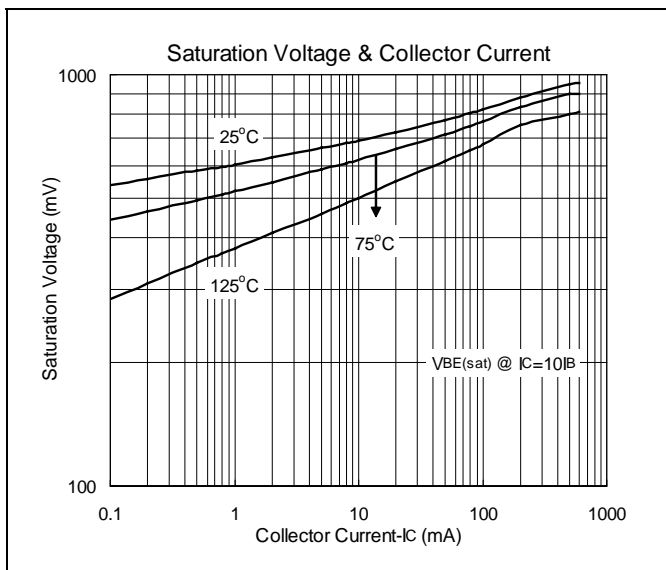
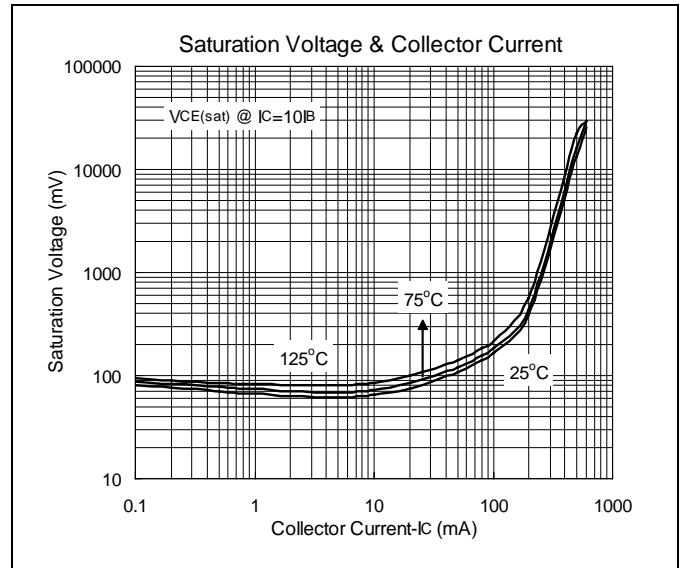
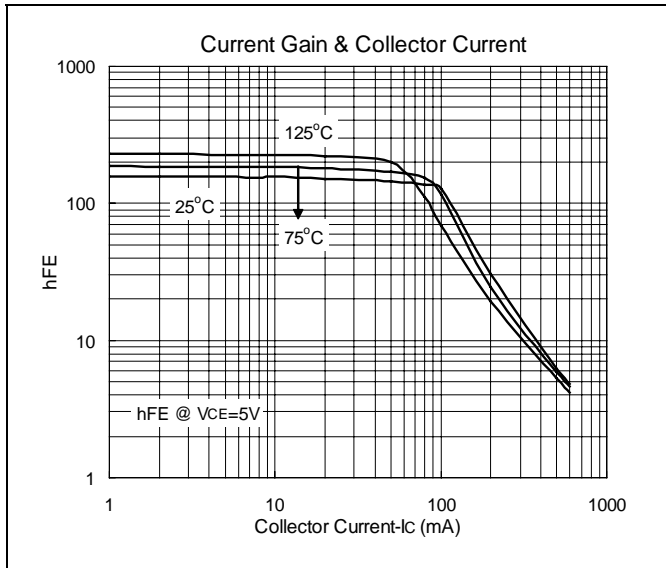
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-160	-	-	V	IC=-100uA
BVCEO	-150	-	-	V	IC=-1mA
BEBO	-5	-	-	V	IE=-10uA
ICBO	-	-	-50	nA	VCB=-120V
*VCE(sat)1	-	-	-200	mV	IC=-10mA, IB=-1mA
*VCE(sat)2	-	-	-500	mV	IC=-50mA, IB=-5mA
*VBE(sat)1	-	-	-1	V	IC=-10mA, IB=-1mA
*VBE(sat)2	-	-	-1	V	IC=-50mA, IB=-5mA
*hFE1	50	-	-		VCE=-5V, IC=-1mA
*hFE2	60	-	240		VCE=-5V, IC=-10mA
*hFE3	50	-	-		VCE=-5V, IC=-50mA
fT	100	-	300	MHz	VCE=-10V, IC=-10mA, f=100MHz
Cob	-	-	6	pF	VCB=-10V, f=1MHZ

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

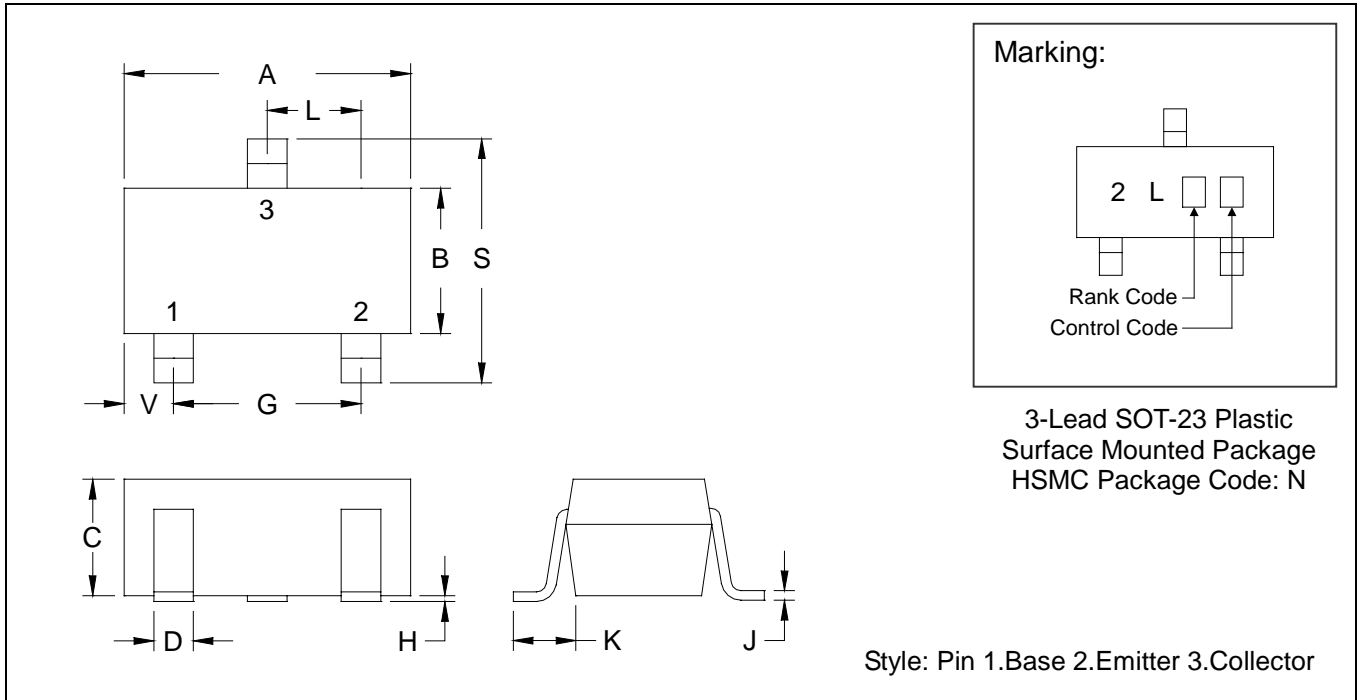


### Characteristics Curve





### 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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