

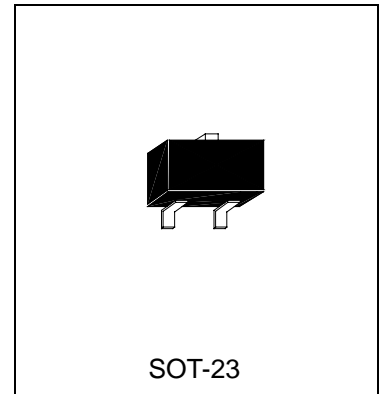


# HMBT4403

PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HMBT4403 is designed for general purpose applications requiring high breakdown voltages.



## 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 ..... -40 V
  - VCEO Collector to Emitter Voltage..... -40 V
  - VEBO Emitter to Base Voltage..... -5 V
  - IC Collector Current..... -600 mA

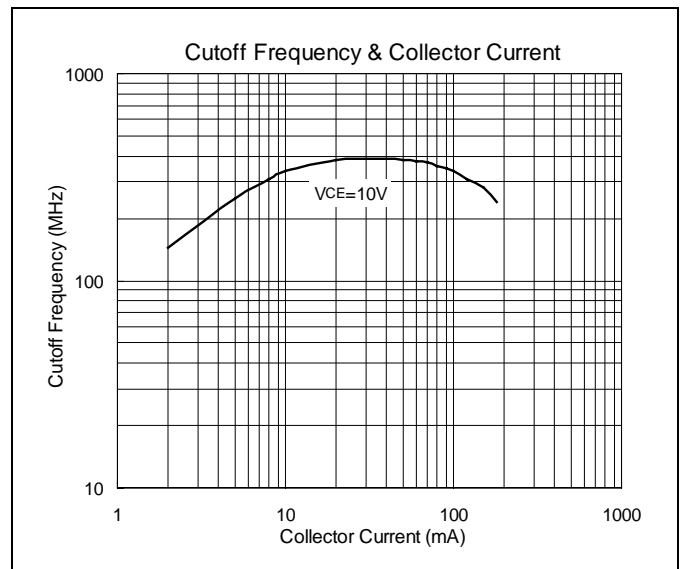
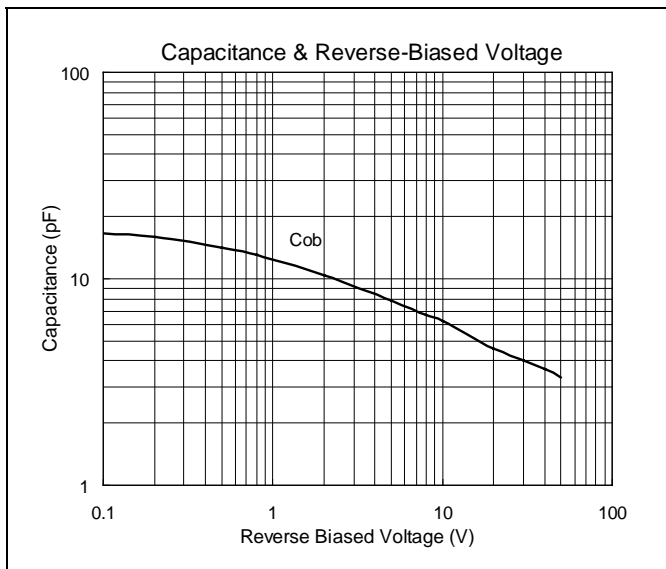
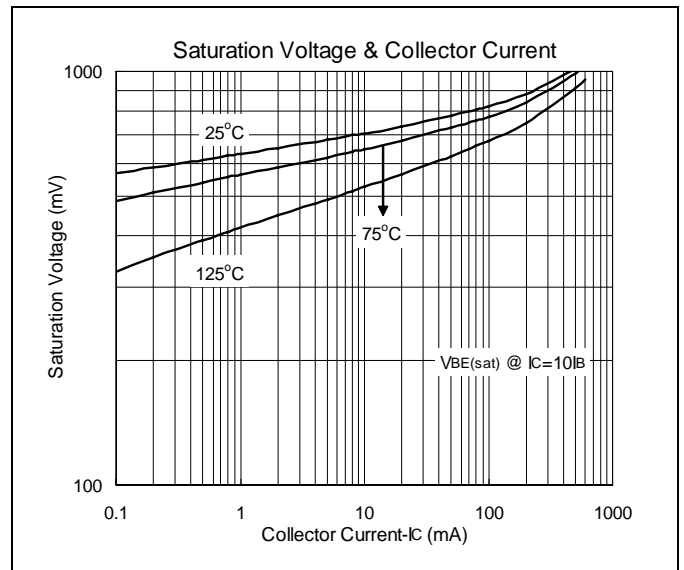
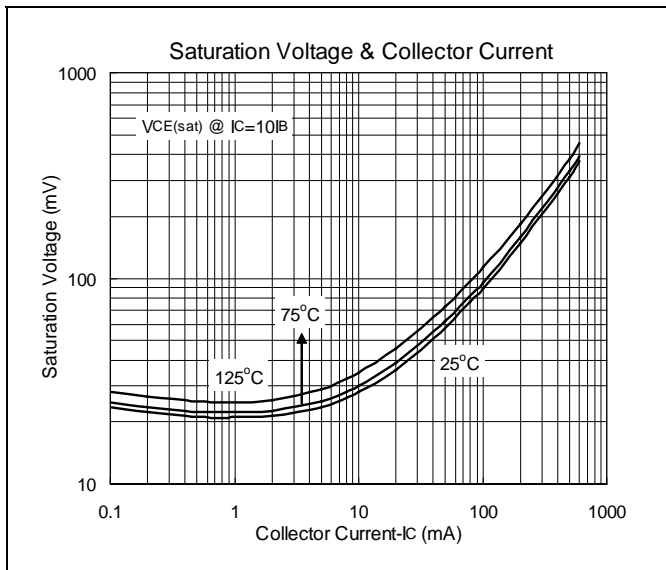
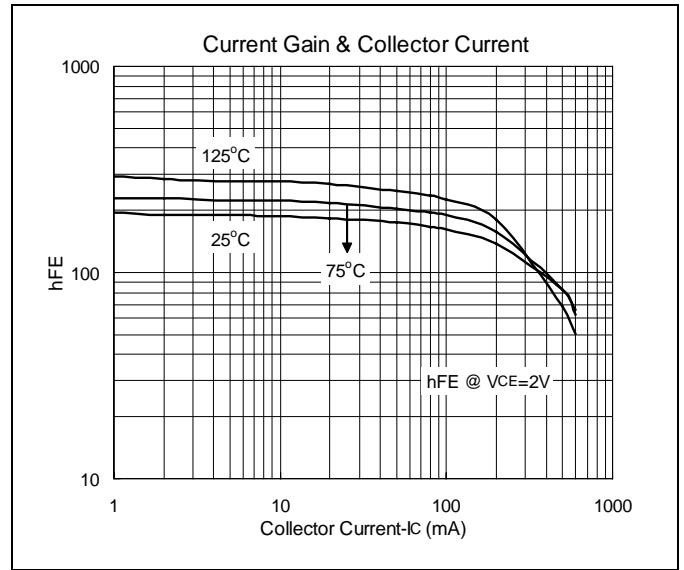
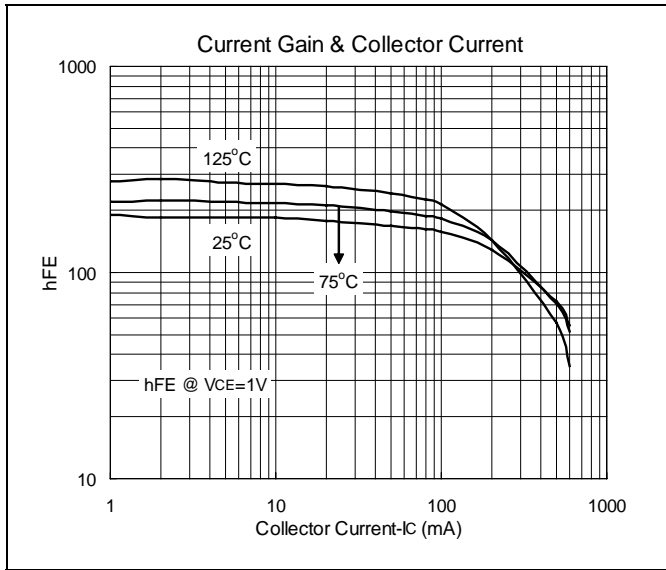
## Characteristics (Ta=25°C)

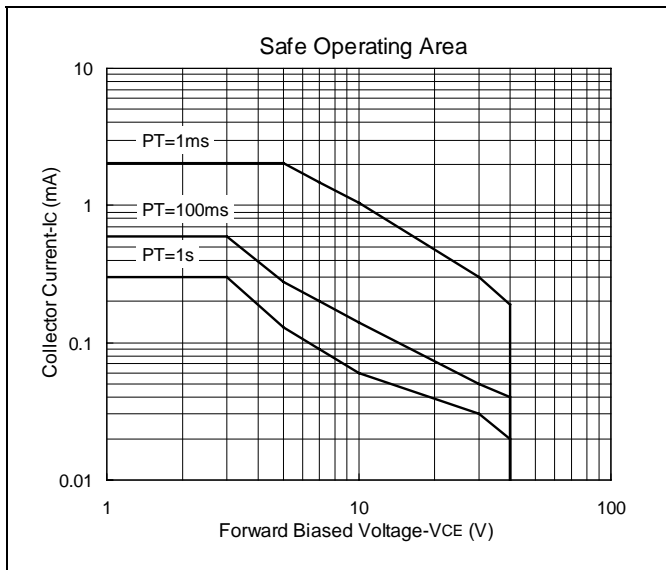
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-40	-	-	V	IC=-100uA
BVCEO	-40	-	-	V	IC=-1mA
VEBO	-5	-	-	V	IE=-100uA
ICEX	-	-	-100	nA	VCE=-35V, VBE=-0.4V
*VCE(sat)1	-	-	-400	mV	IC=-150mA, IB=-15mA
*VCE(sat)2	-	-	-750	mV	IC=-500mA, IB=-50mA
*VBE(sat)1	-	-	-950	mV	IC=-150mA, IB=-15mA
*VBE(sat)2	-	-	-1.3	V	IC=-500mA, IB=-50mA
*hFE1	30	-	-		VCE=-1V, IC=-0.1mA
*hFE2	60	-	-		VCE=-1V, IC=-1mA
*hFE3	100	-	-		VCE=-1V, IC=-10mA
*hFE4	100	-	300		VCE=-2V, IC=-150mA
*hFE5	20	-	-		VCE=-2V, IC=-500mA
fT	200	-	-	MHz	VCE=-10V, IC=-20mA, f=100MHz
Cob	-	-	8.5	pF	VCB=-10V, f=1MHz

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



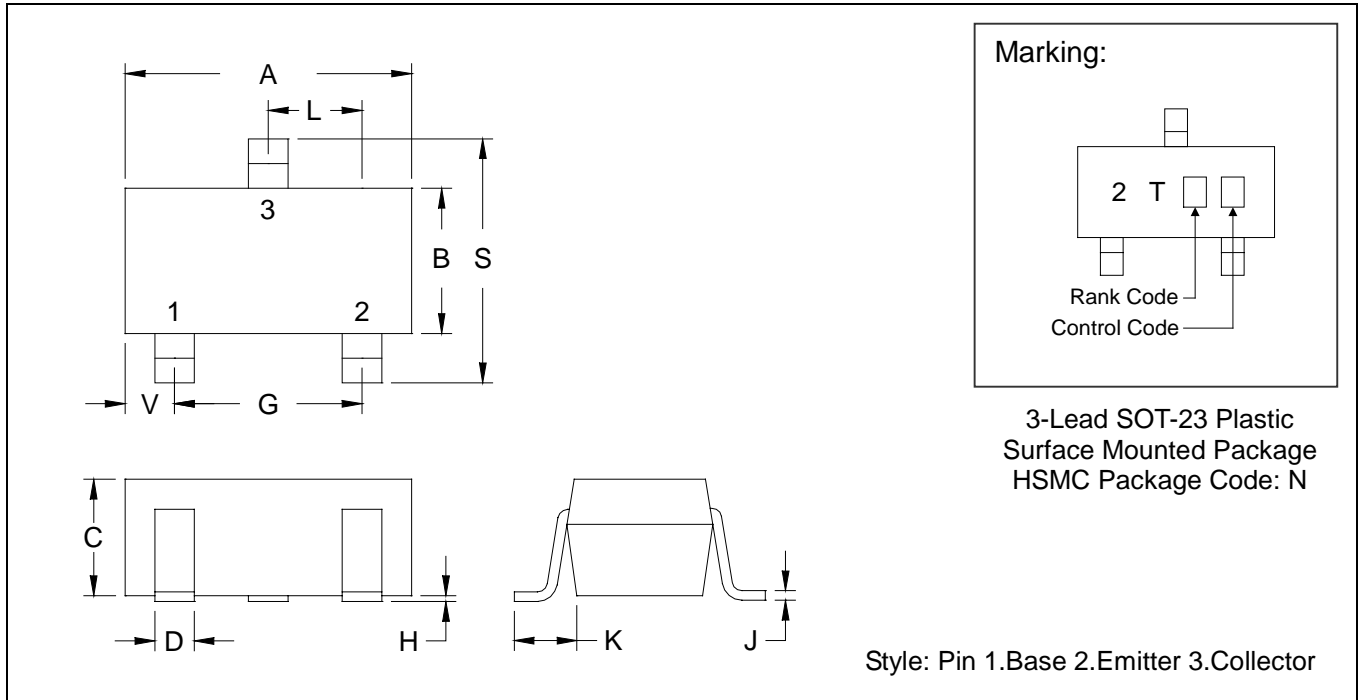
### Characteristics Curve







### 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

**Important Notice:**

- All rights are reserved. Reproduction in whole or in part is prohibited without the prior written approval of HSMC.
- HSMC reserves the right to make changes to its products without notice.
- **HSMC semiconductor products are not warranted to be suitable for use in Life-Support Applications, or systems.**
- HSMC assumes no liability for any consequence of customer product design, infringement of patents, or application assistance.

**Head Office And Factory:**

- **Head Office** (Hi-Sincerity Microelectronics Corp.): 10F.,No. 61, Sec. 2, Chung-Shan N. Rd. Taipei Taiwan R.O.C.  
 Tel: 886-2-25212056 Fax: 886-2-25632712, 25368454
- **Factory 1:** No. 38, Kuang Fu S. Rd., Fu-Kou Hsin-Chu Industrial Park Hsin-Chu Taiwan. R.O.C  
 Te : 886-3-5983621~5 Fax: 886-3-5982931