

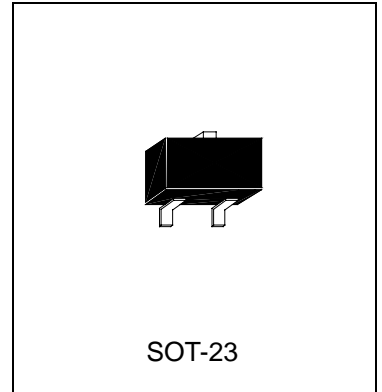


HMBT4124

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HMBT4124 is designed for general purpose switching and amplifier applications.



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 30 V
 VCEO Collector to Emitter Voltage..... 25 V
 VEBO Emitter to Base Voltage..... 5 V
 IC Collector Current..... 200 mA

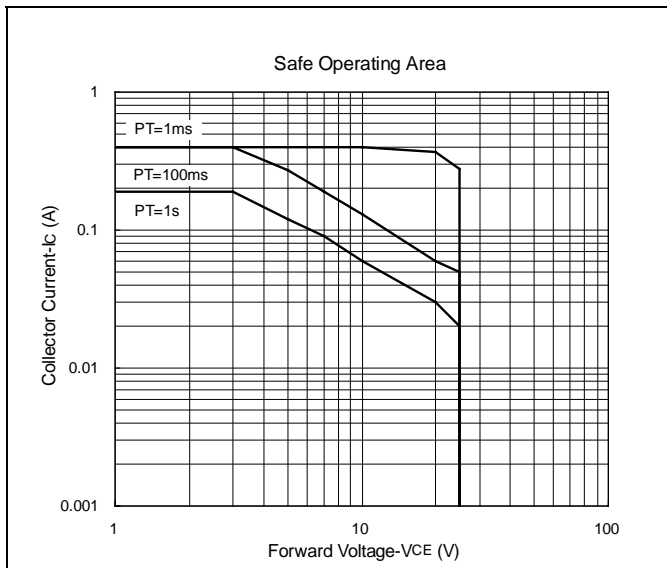
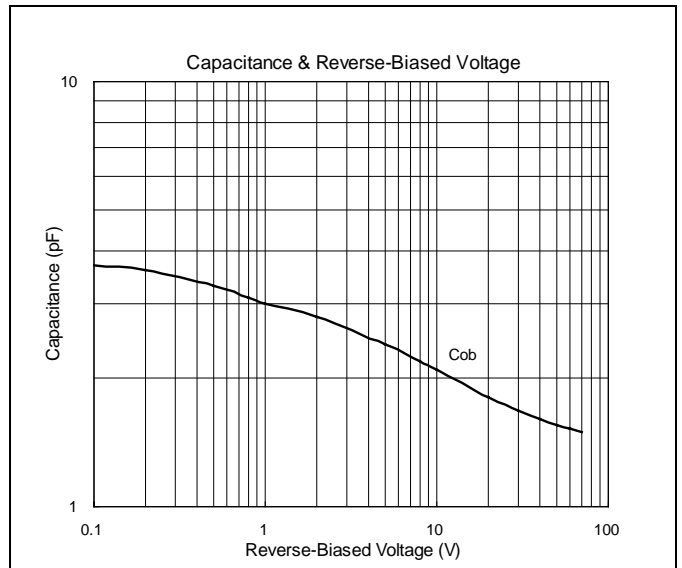
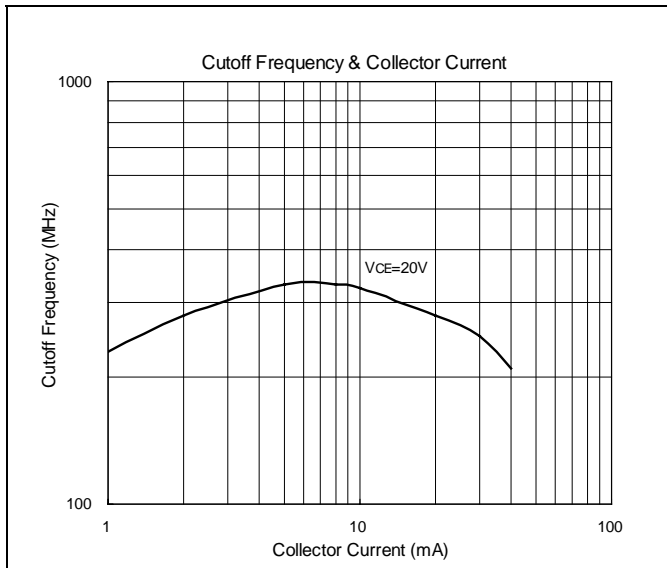
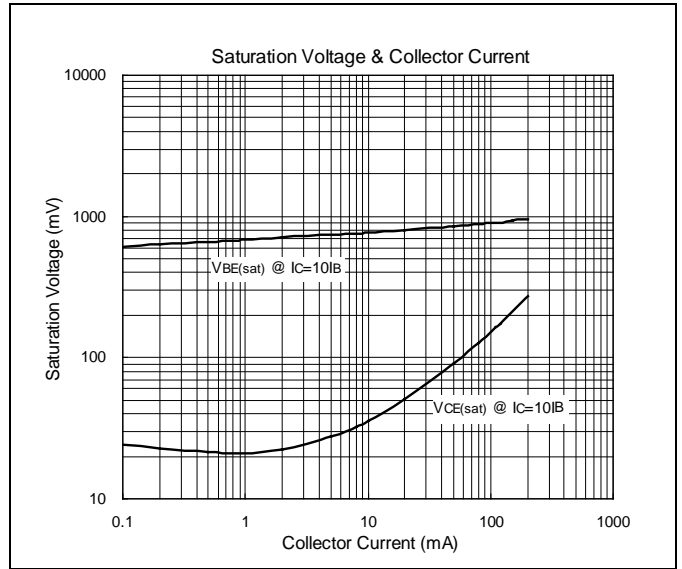
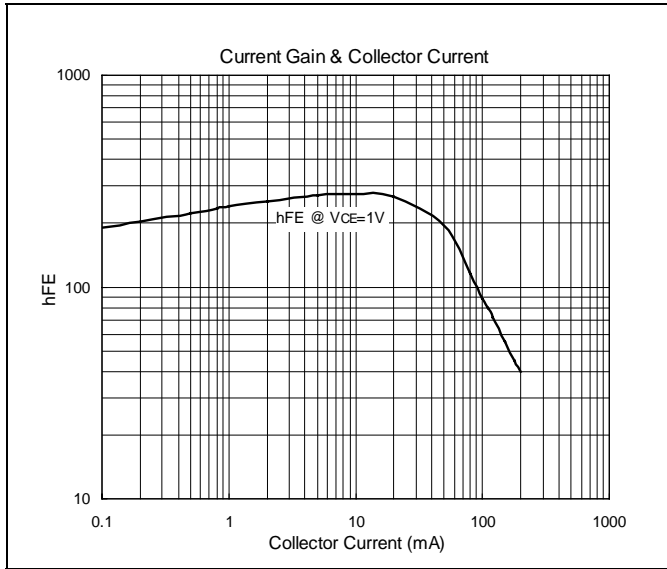
Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=10uA, IE=0
BVCEO	25	-	-	V	IC=1mA, IB=0
BVEBO	5	-	-	V	IE=10uA, IC=0
ICBO	-	-	50	nA	VCB=20V
IEBO	-	-	50	nA	VEB=3V
*VCE(sat)	-	-	300	mV	IC=50mA, IB=5mA
*VBE(sat)	-	-	950	mV	IC=50mA, IB=5mA
*hFE1	120	-	360		VCE=1V, IC=2mA
*hFE2	60	-	-		VCE=1V, IC=50mA
fT	300	-	-	MHz	VCE=20V, IC=10mA, f=1MHz
Cob	-	-	4	pF	VCB=5V, IE=0, f=1MHz

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

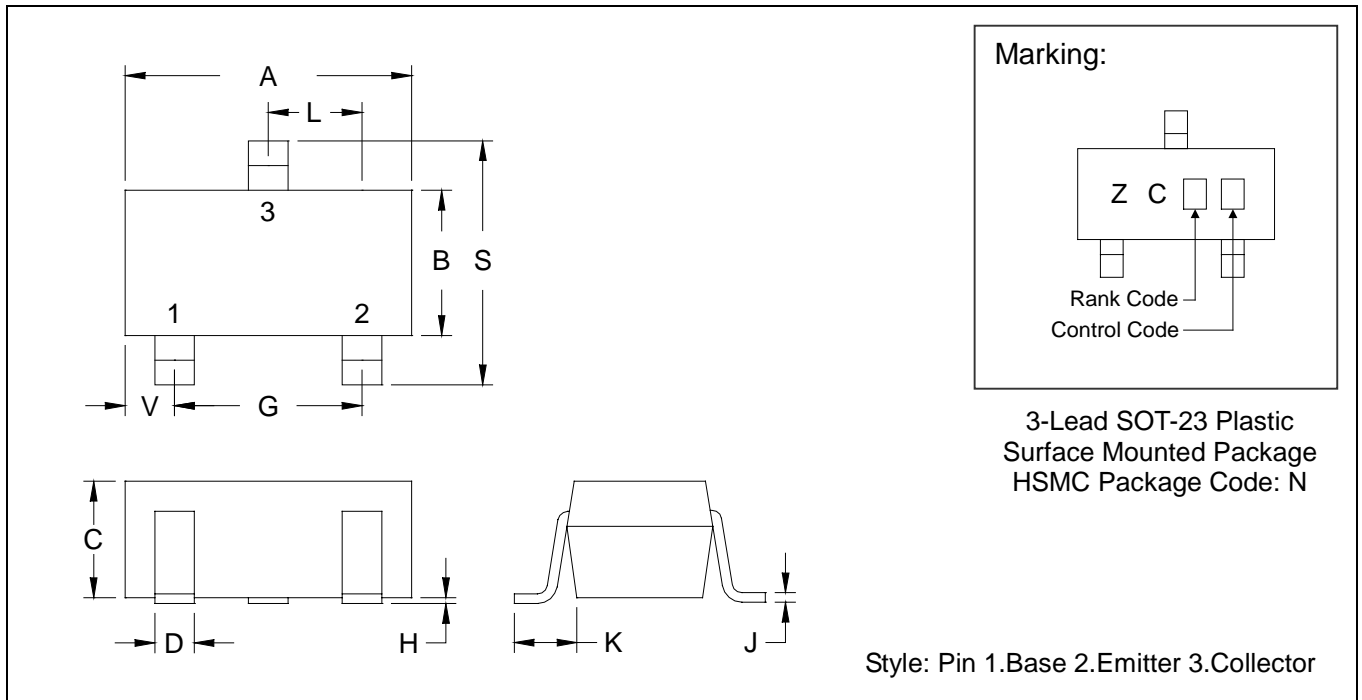


Characteristics Curve





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 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
 Tel: 886-3-5983621~5 Fax: 886-3-5982931