

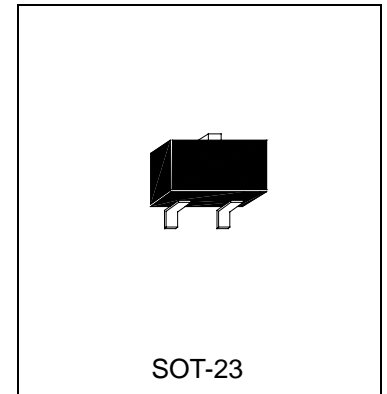


# HBCW65C

NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HBCW65C is a general purpose transistor.



## Absolute Maximum Ratings

- Maximum Temperatures  
 Storage Temperature ..... -65 ~ +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 ..... 60 V  
 VCEO Collector to Emitter Voltage ..... 32 V  
 VEBO Emitter to Base Voltage ..... 5 V  
 IC Collector Current ..... 800 mA

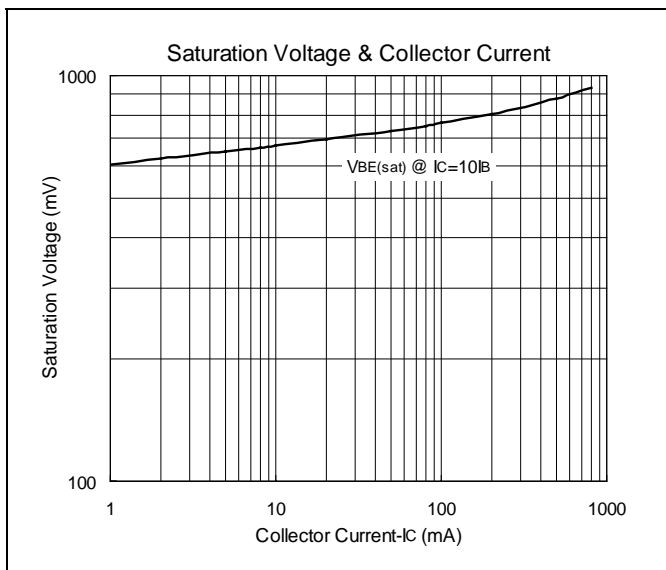
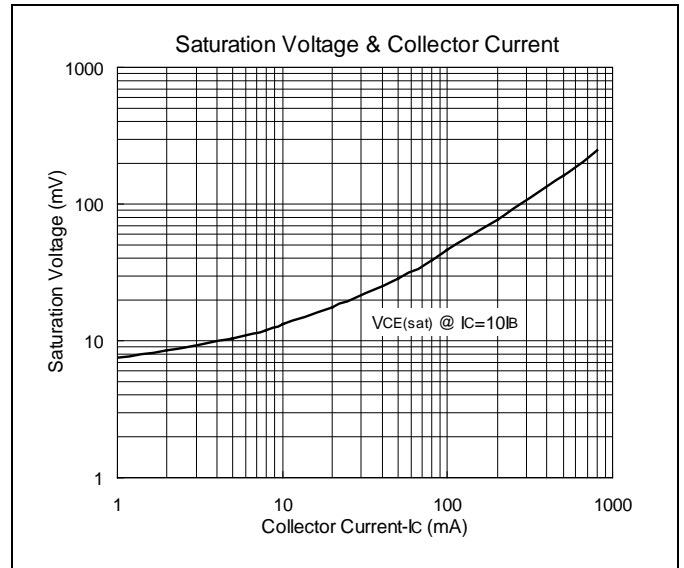
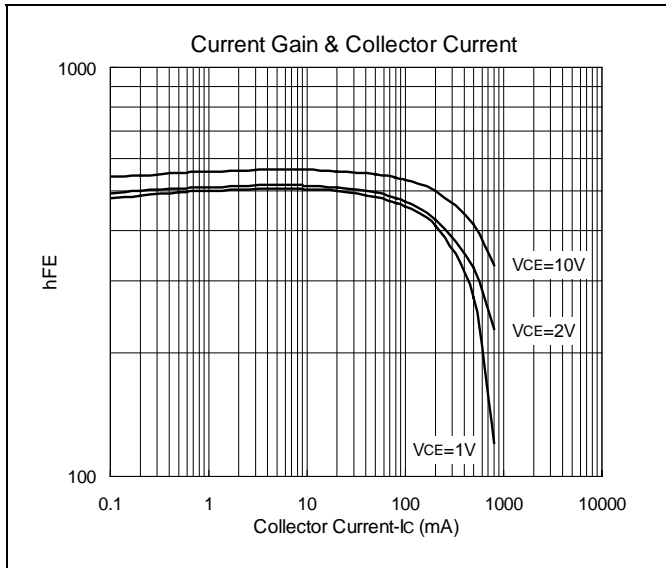
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	60	-	-	V	IC=10uA
BVCEO	32	-	-	V	IC=10mA
BVEBO	5	-	-	V	IE=10uA
ICBO	-	-	20	nA	VCB=32V, IE=0
IEBO	-	-	20	nA	VEB=4V, IC=0
*VCE(sat)1	-	-	700	mV	IC=500mA, IB=50mA
*VCE(sat)2	-	-	300	mV	IC=100mA, IB=10mA
*VBE(sat)	-	-	2.0	V	IC=500mA, IB=50mA
*hFE1	80	-	-		VCE=10V, IC=100uA
*hFE2	180	-	-		VCE=1V, IC=10mA
*hFE3	250	-	630		VCE=1V, IC=100mA
*hFE4	100	-	-		VCE=2V, IC=500mA
fT	-	170	-	MHz	VCE=10V, IC=20mA, f=100MHz
Cob	-	8	-	pF	VCB=10V, f=1.0MHz

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

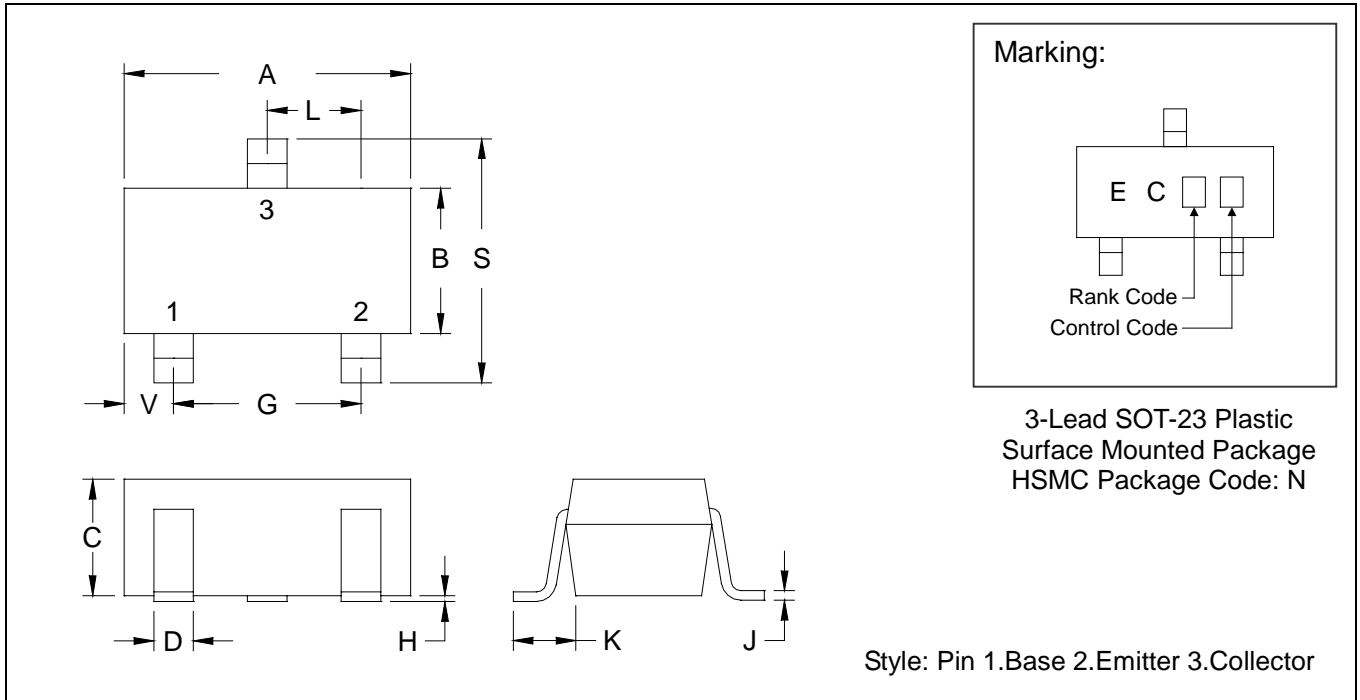


### Characteristics Curve





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