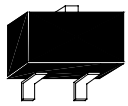
HMBT2907A

PNP EPITAXIAL PLANAR TRANSISTOR



SOT-23

Description

The HMBT2907A is designed for general purpose amplifier and high -speed switching, medium power switching applications.

Features

- Low Collector Saturation Voltage
- High Speed Switching
- For Complementary Use With NPN Type HMBT2222A

Absolute Maximum Ratings

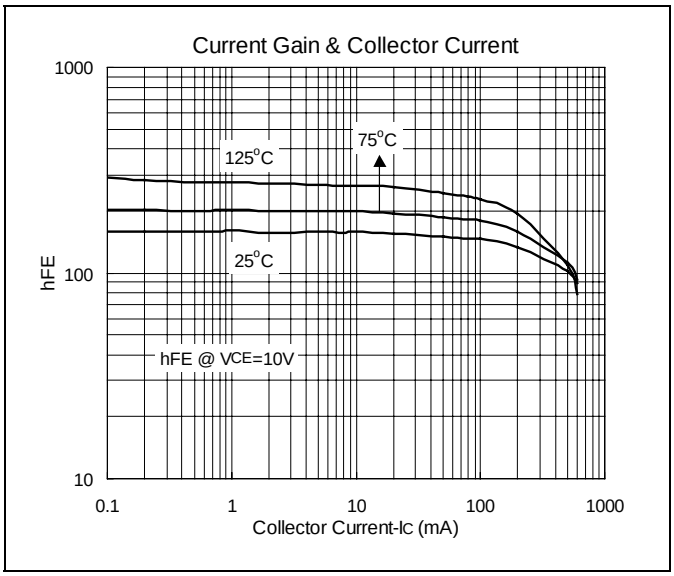
- Maximum Temperatures
  Storage Temperature ..... -55 ~ +150 °C
  Junction Temperature..... +150 °C
- Maximum Power Dissipation
  Total Power Dissipation (Ta=25°C) ..... 225 mW
- Maximum Voltages and Currents (Ta=25°C)
  VCBO Collector to Base Voltage..... -60 V
  VCEO Collector to Emitter Voltage..... -60 V
  VEBO Emitter to Base Voltage..... -5 V
  IC Collector Current..... -600 mA

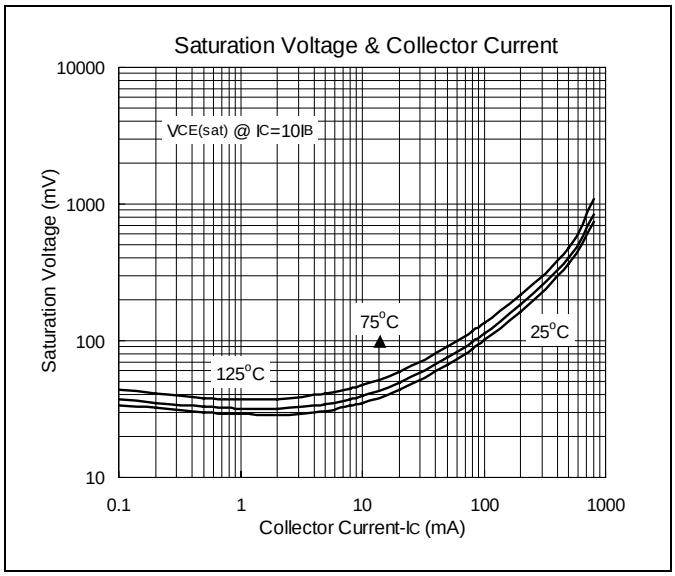
Characteristics (Ta=25°C)

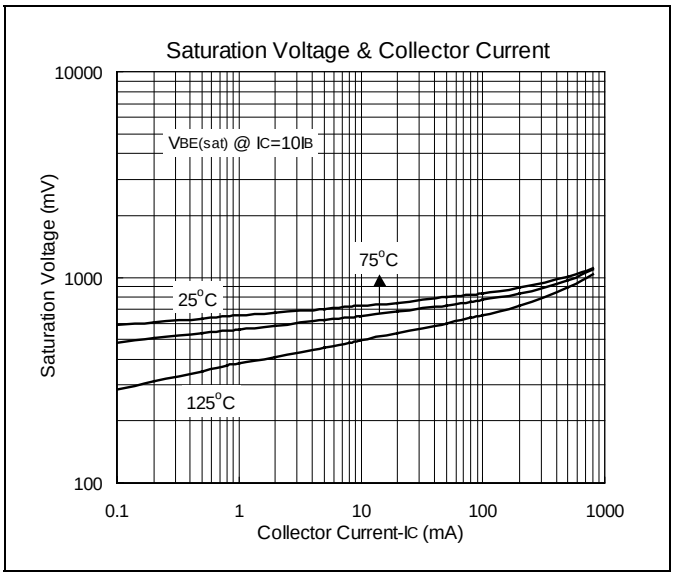
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-60	-	-	V	IC=-10uA
BVCEO	-60	-	-	V	IC=-10mA
BVEBO	-5	-	-	V	IC=-10uA
ICBO	-	-	-10	nA	VCB=-50V
ICEX	-	-	-50	nA	VCE=-30V, VBE=-0.5V
*VCE(sat)1	-	-0.2	-0.4	V	IC=-150mA, IB=-15mA
*VCE(sat)2	-	-0.5	-1.6	V	IC=-500mA, IB=-50mA
*VBE(sat)1	-	-	-1.3	V	IC=-150mA, IB=-15mA
*VBE(sat)2	-	-	-2.6	V	IC=-500mA, IB=-50mA
*hFE1	75	-	-		VCE=-10V, IC=-100uA
*hFE2	100	-	-		VCE=-10V, IC=-1mA
*hFE3	100	-	-		VCE=-10V, IC=-10mA
*hFE4	100	180	300		VCE=-10V, IC=-150mA
*hFE5	50	-	-		VCE=-10V, IC=-500mA
fT	200	-	-	MHz	VCB=-20V, IC=-50mA, f=100MHz
Cob	-	-	8	pF	VCB=-10V, f=1MHz

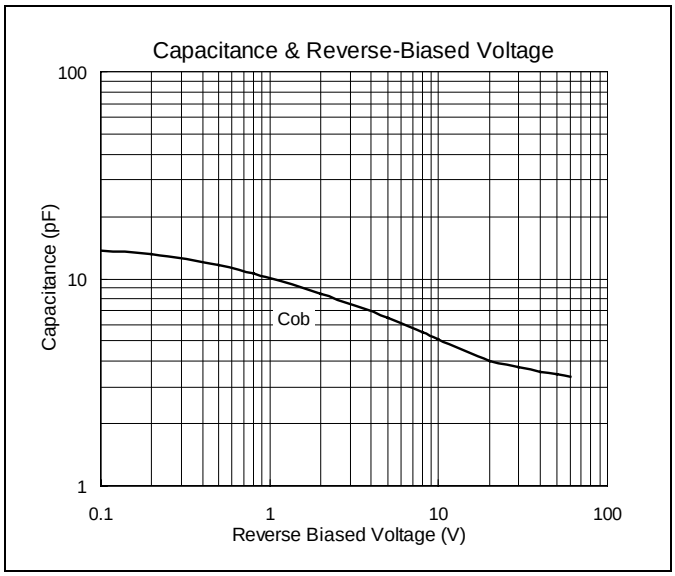
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

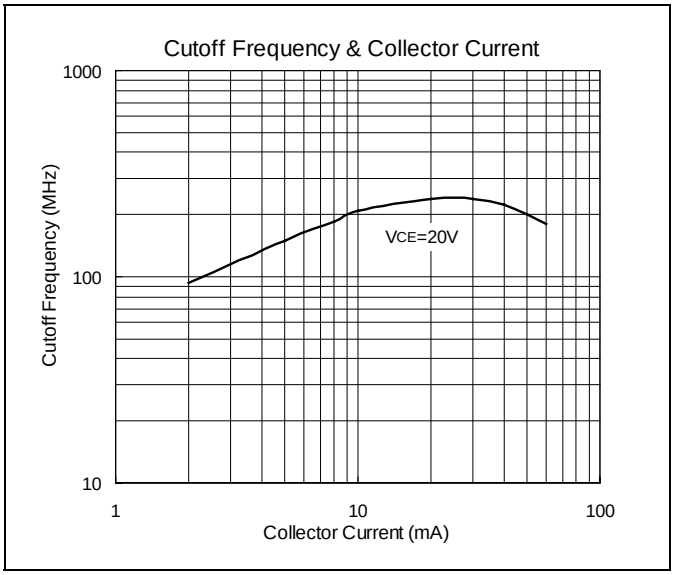
Characteristics Curve



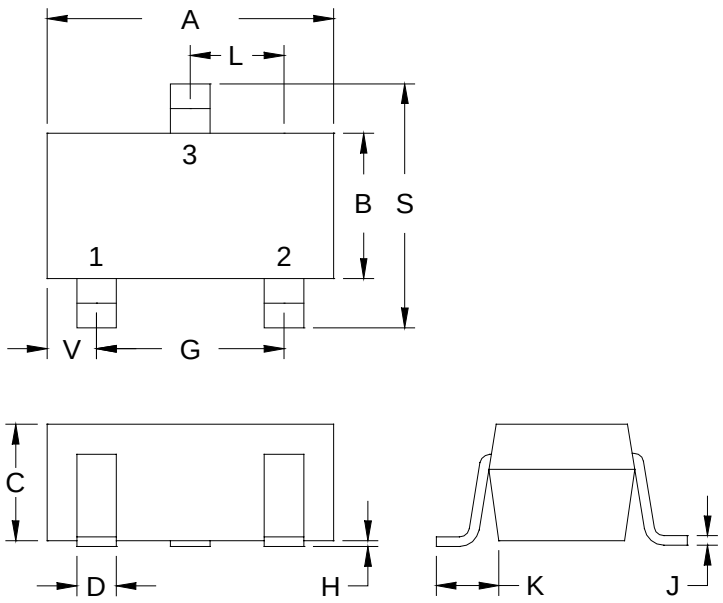




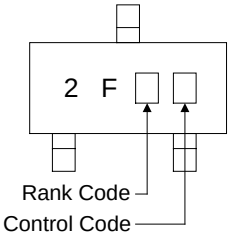




SOT-23 Dimension



Marking:



3-Lead SOT-23 Plastic
Surface Mounted Package
HSMC Package Code: N

Style: Pin 1.Base 2.Emitter 3.Collector

*: 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

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