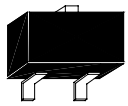
HMBT5089

NPN EPITAXIAL PLANAR TRANSISTOR



SOT-23

Description

The HMBT5089 is designed for low noise, high gain, general purpose amplifier applications.

Absolute Maximum Ratings

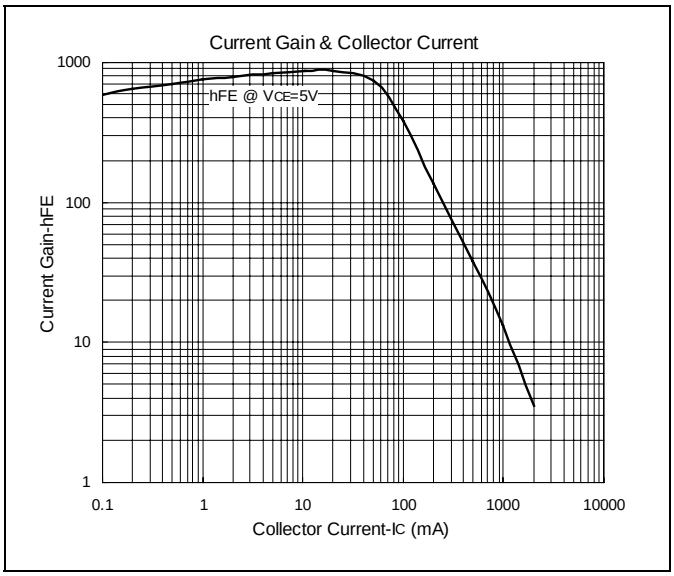
- Maximum Temperatures
  Storage Temperature ..... -55 ~ +150 °C
  Junction Temperature..... +150 °C Maximum
- Maximum Power Dissipation
  Total Power Dissipation (Ta=25°C) ..... 225 mW
- Maximum Voltages and Currents (Ta=25°C)
  VCBO Collector to Base Voltage..... 30 V
  VCEO Collector to Emitter Voltage..... 25 V
  VEBO Emitter to Base Voltage..... 4.5 V
  IC Collector Current ..... 50 mA

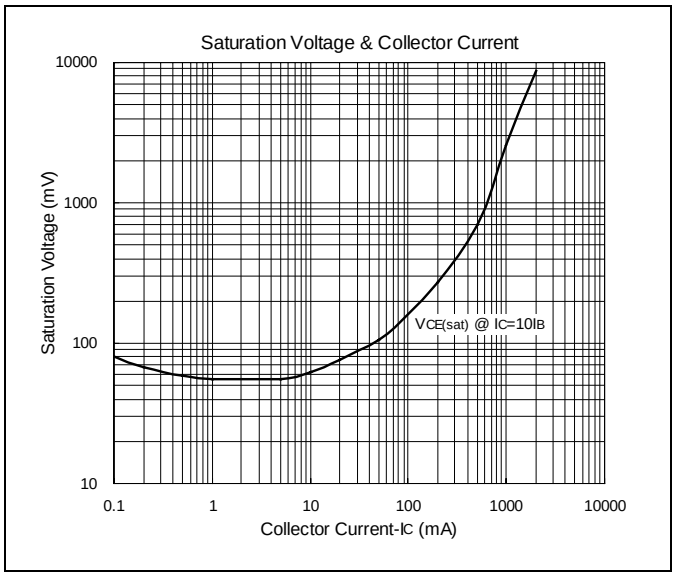
Characteristics (Ta=25°C)

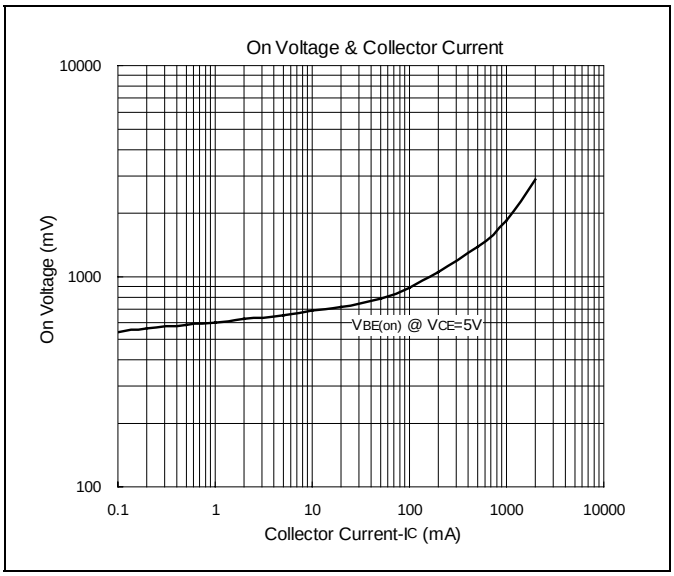
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	30	-	-	V	IC=100uA
BVCEO	25	-	-	V	IC=1mA
BVEBO	4.5	-	-	V	IE=10uA
ICBO	-	-	50	nA	VCB=15V
IEBO	-	-	100	nA	VEB=4.5V
*VCE(sat)	-	-	500	mV	IC=10mA, IB=1mA
*VBE(sat)	-	-	800	mV	IC=10mA, IB=1mA
*hFE1	400	-	1200		VCE=5V, IC=0.1mA
*hFE2	450	-	-		VCE=5V, IC=1mA
*hFE3	400	-	-		VCE=5V, IC=10mA
fT	50	-	-	MHz	VCE=5V, IC=0.5mA, f=20MHz
Cob	-	-	4.0	pF	VCB=5V, f=1MHz

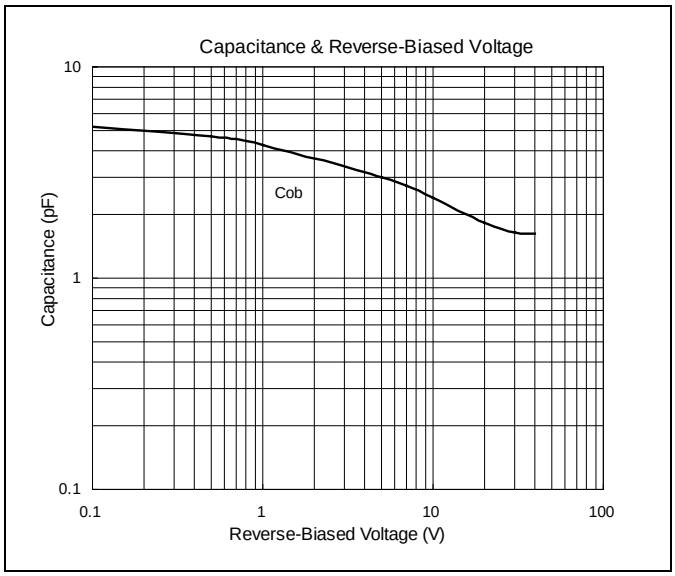
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

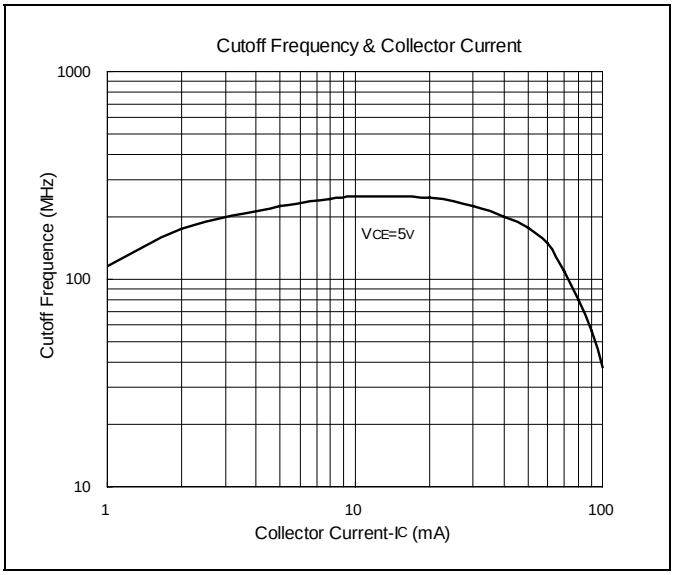
Characteristics Curve

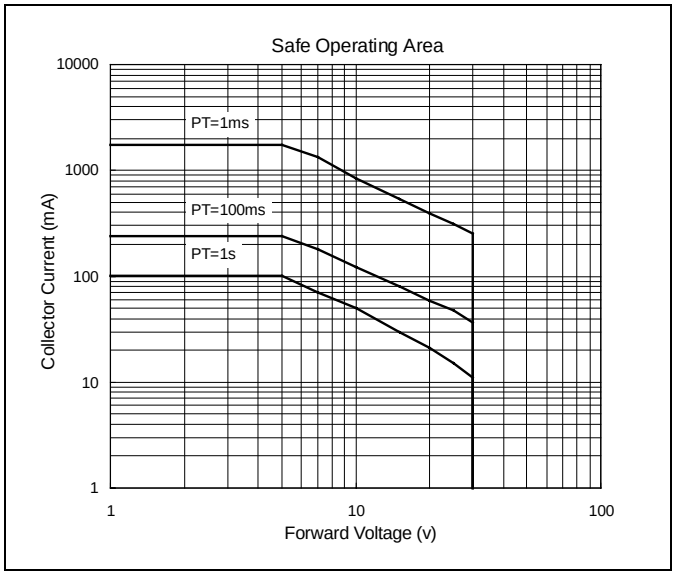




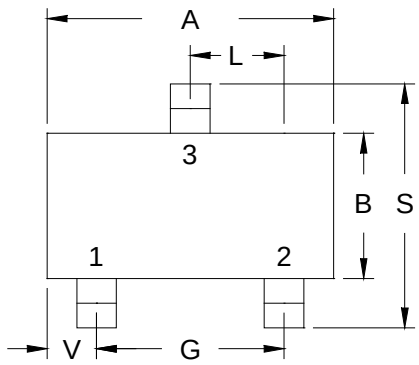


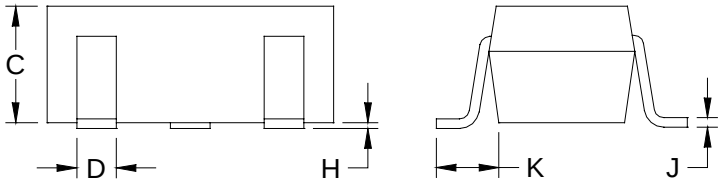




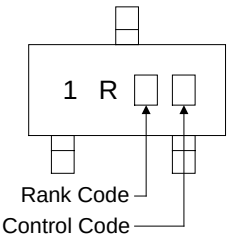


SOT-23 Dimension





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:

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