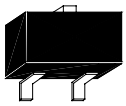
HMBT8050

NPN EPITAXIAL TRANSISTOR



SOT-23

Description

The HMBT8050 is designed for general purpose amplifier applications.

Features

- High DC Current hFE=150-400 at IC=150mA
- Complementary to HMBT8550

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..... 25 V
  VCEO Collector to Emitter Voltage..... 20 V
  VEBO Emitter to Base Voltage..... 5 V
  IC Collector Current ..... 700 mA

Characteristics (Ta=25°C)

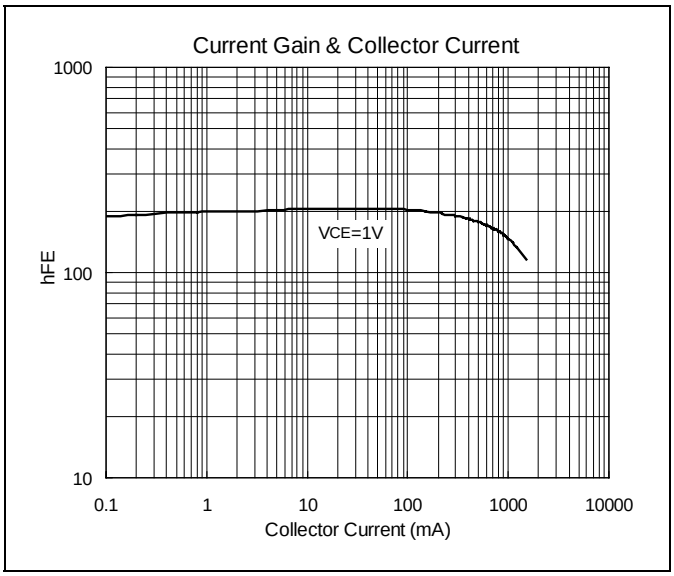
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	25	-	-	V	IC=10uA, IE=0
BVCEO	20	-	-	V	IC=1mA, IB=0
BVEBO	5	-	-	V	IE=10uA, IC=0
ICBO	-	-	1	uA	VCB=20V. IE=0
*VCE(sat)	-	-	500	mV	IC=500mA, IB=50mA
VBE(on)	-	-	1	V	VCE=1V, IC=150mA
*hFE	150	-	500		VCE=1V, IC=150mA
fT	150	-	-	MHz	VCE=10V, IC=20mA, f=100MHz
Cob	-	-	10	pF	VCB=10V, f=1MHz

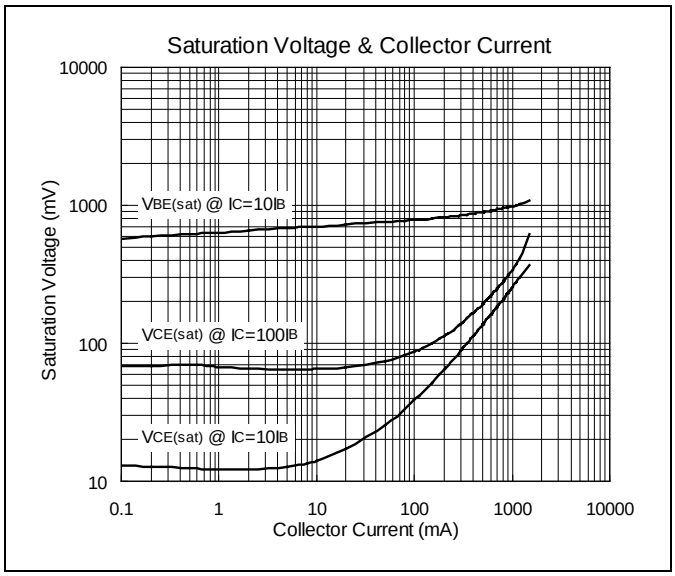
*Pulse Test: Pulse Width ≤380us, Duty Cycle≤2%

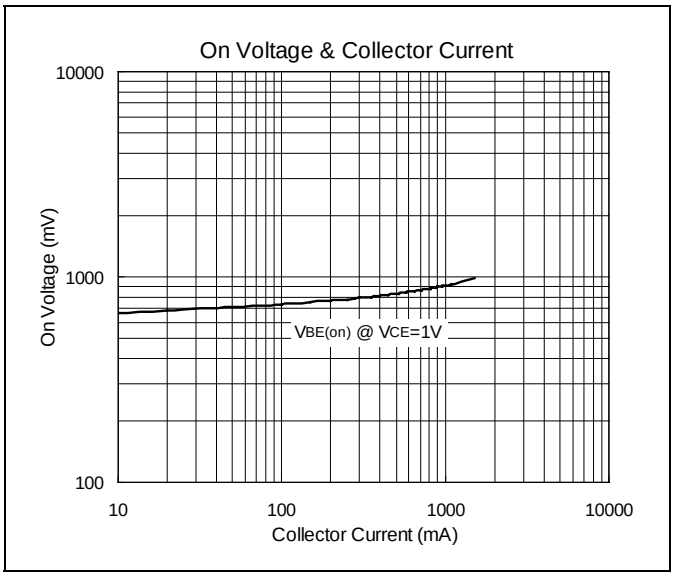
Classification Of hFE

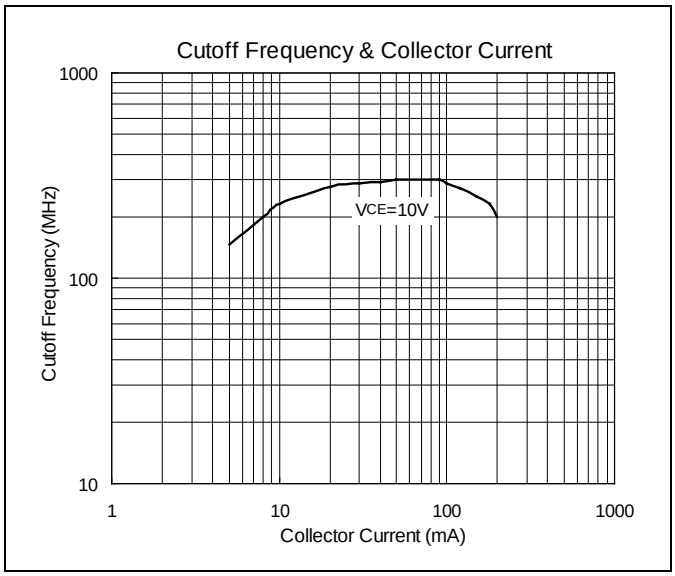
Rank	D9D	D9E
Range	150-300	250-500

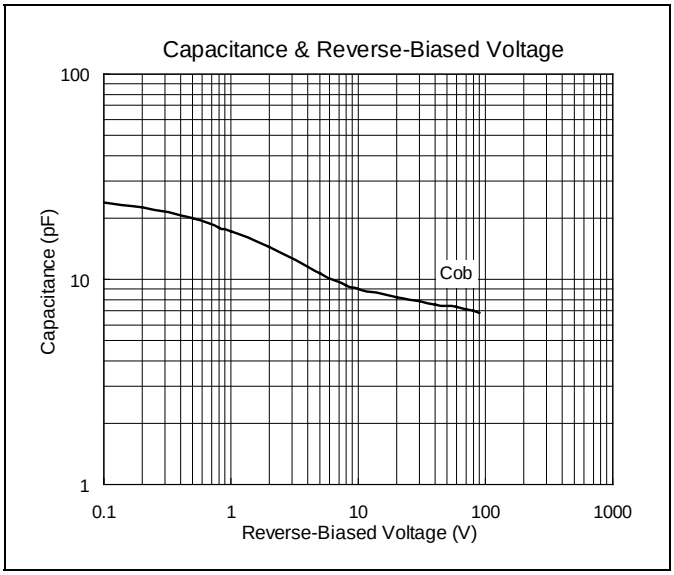
Characteristics Curve

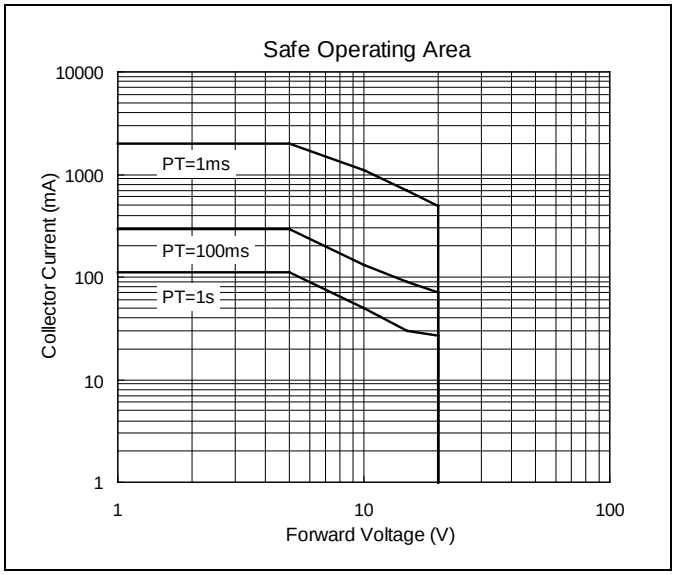




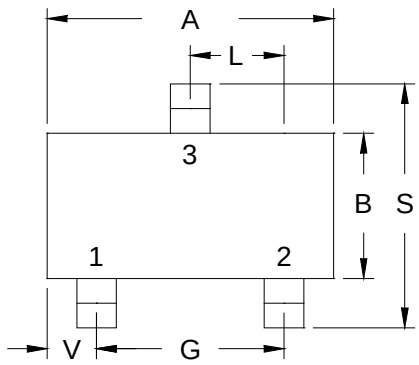


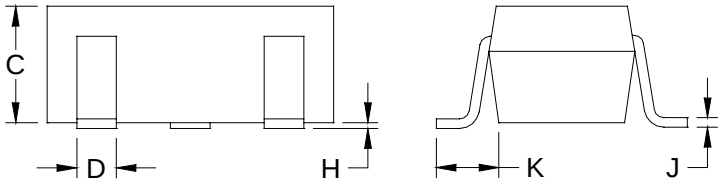




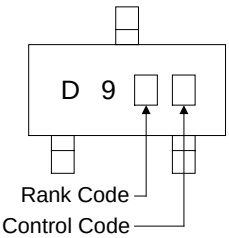


SOT-23 Dimension





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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- **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