



HMBTH10

NPN EPITAXIAL PLANAR TRANSISTOR

Description

The HMBTH10 is designed for use in VHF & UHF oscillators and VHF mixer in tuner of a TV receiver.

Features

- High frequency
- Very low capacitance

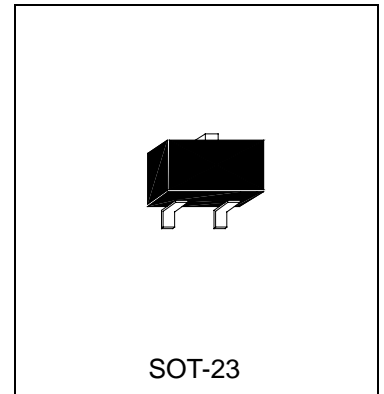
Absolute Maximum Ratings

- 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 20 V
 VCEO Collector to Emitter Voltage..... 15 V
 VEBO Emitter to Base Voltage..... 3 V
 IC Collector Current 50 mA

Characteristics (Ta=25°C)

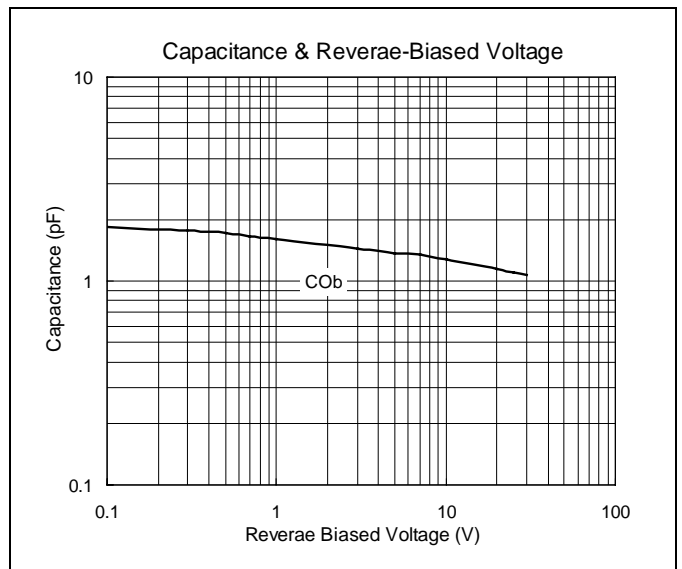
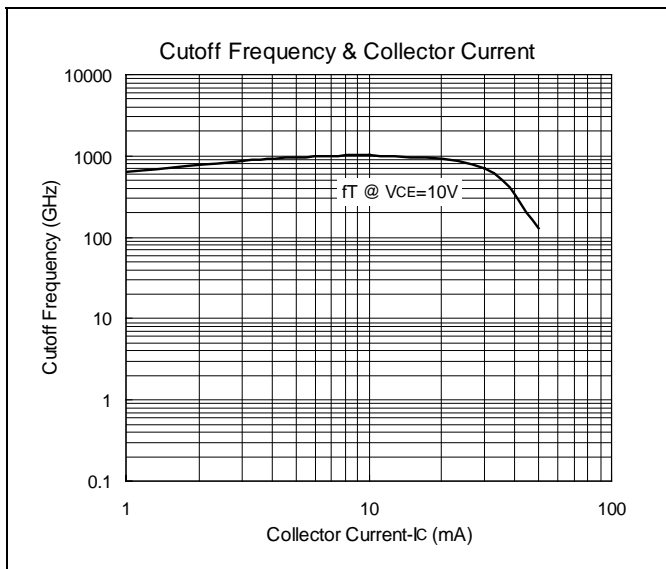
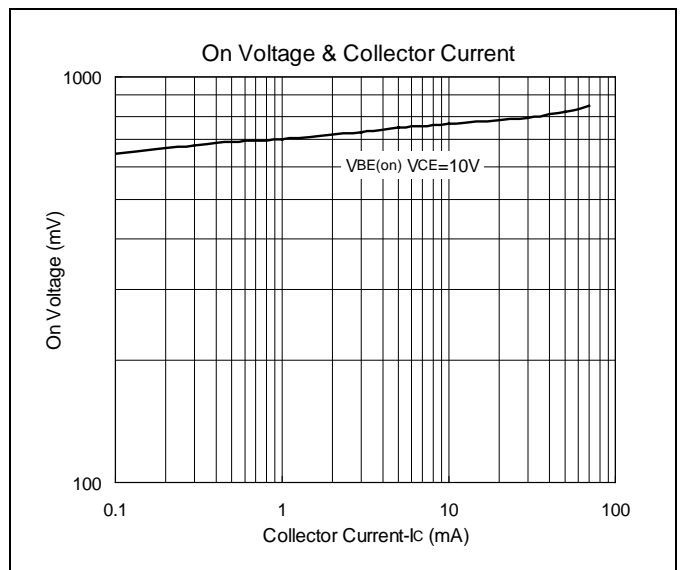
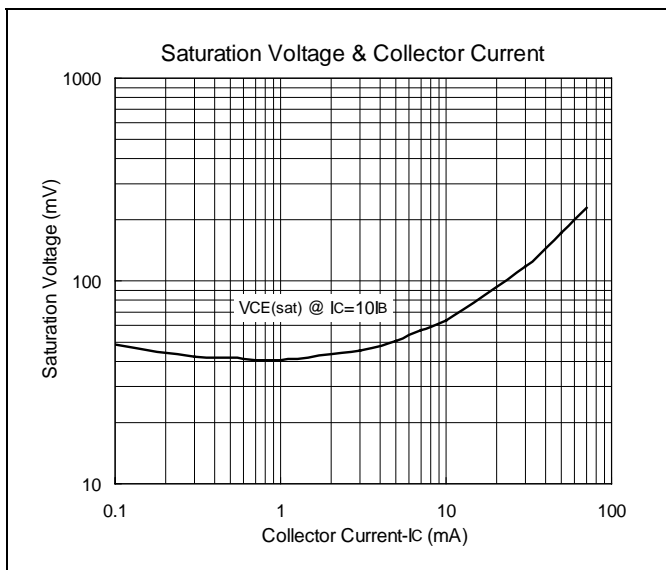
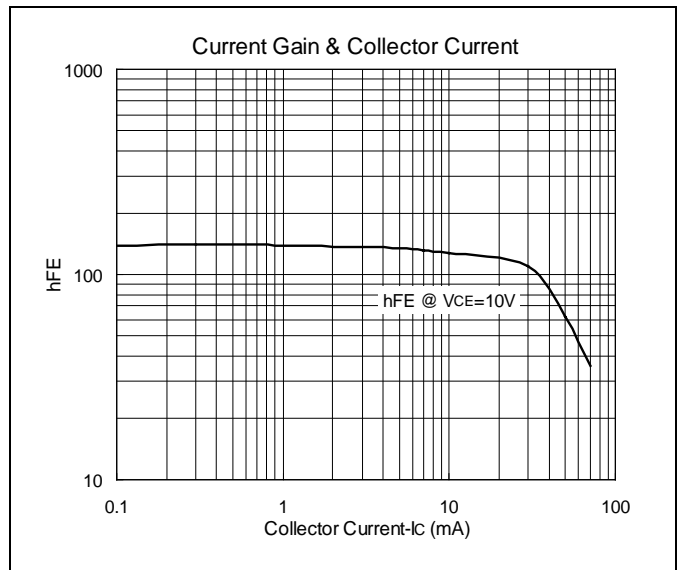
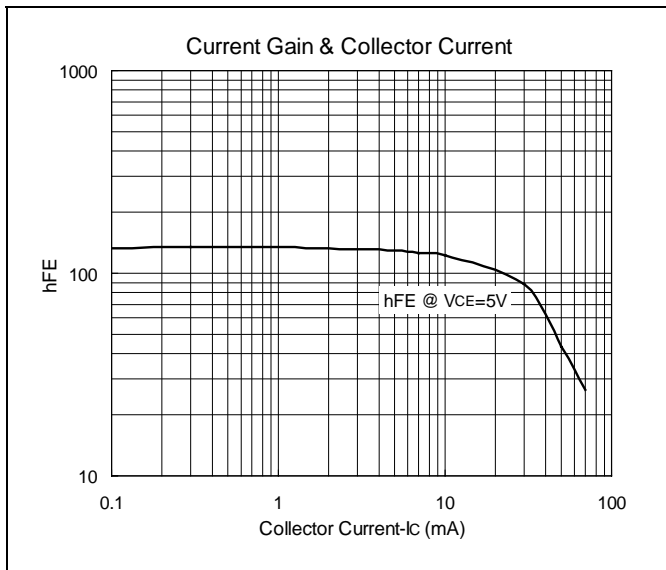
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	20	-	-	V	IC=100uA
BVCEO	15	-	-	V	IC=1mA
BVEBO	3	-	-	V	IC=10uA
ICBO	-	-	100	nA	VCB=20V
IEBO	-	-	100	nA	VEB=2V
*VCE(sat)	-	-	500	mV	IC=4mA, IB=0.4mA
VBE(on)	-	-	0.95	V	VCE=10V, IC=4mA
*hFE	60	-	-		VCE=10V, IC=4mA
Cob	-	1.5	-	pF	VCB=10V, f=1MHz
fT	650	-	-	MHz	VCB=10V, IC=4mA, f=100MHz

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



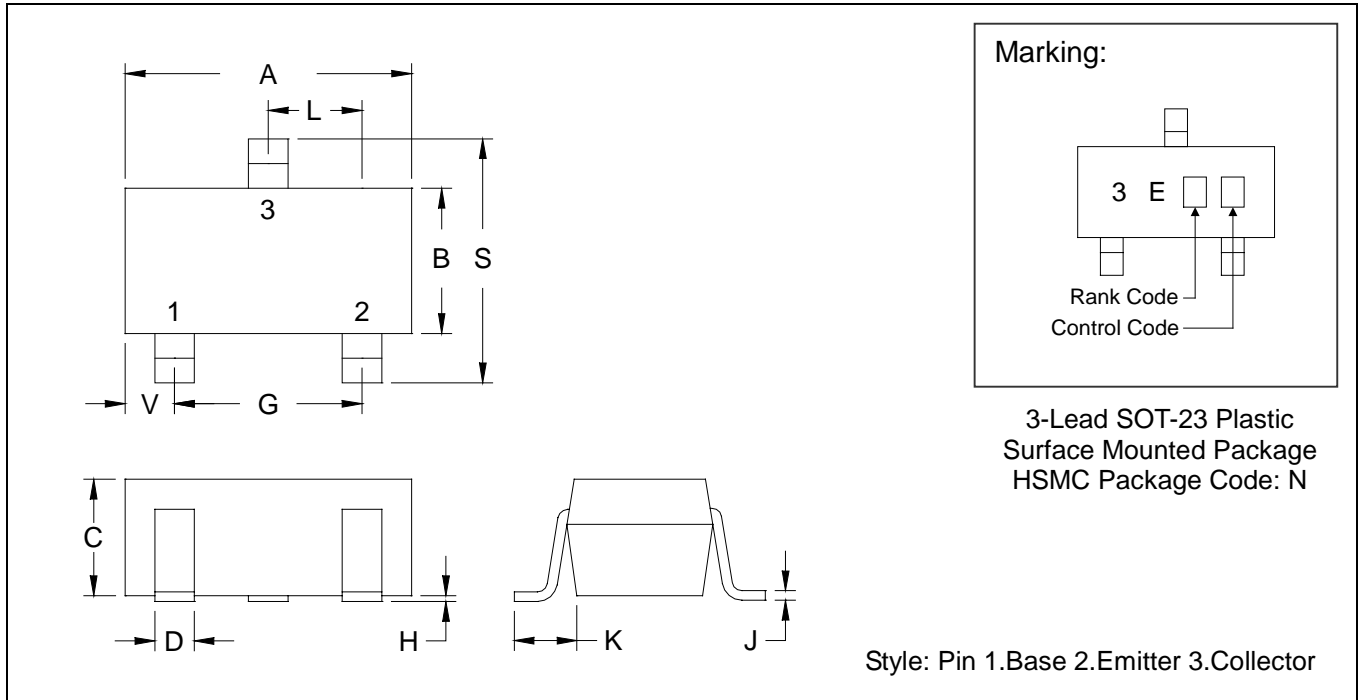


Characteristics Curve





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

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