



# HMBT6520

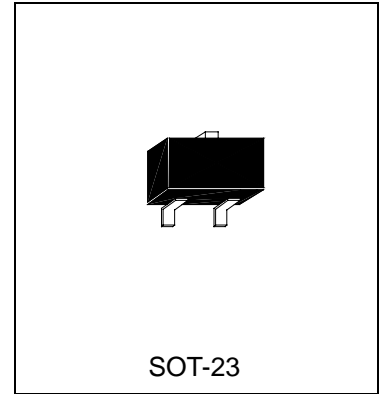
PNP EPITAXIAL PLANAR TRANSISTOR

## Description

The HMBT6520 is designed for general purpose applications requiring high breakdown voltages.

## Features

- High Collector-Emitter Breakdown Voltage
- Low Collector-Emitter Saturation Voltage
- The HMBT6520 is complementary to HMBT6517



## 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 ..... -350 V  
 VCEO Collector to Emitter Voltage ..... -350 V  
 VEBO Emitter to Base Voltage ..... -5 V  
 IC Collector Current ..... -500 mA  
 IB Base Current ..... -250 mA

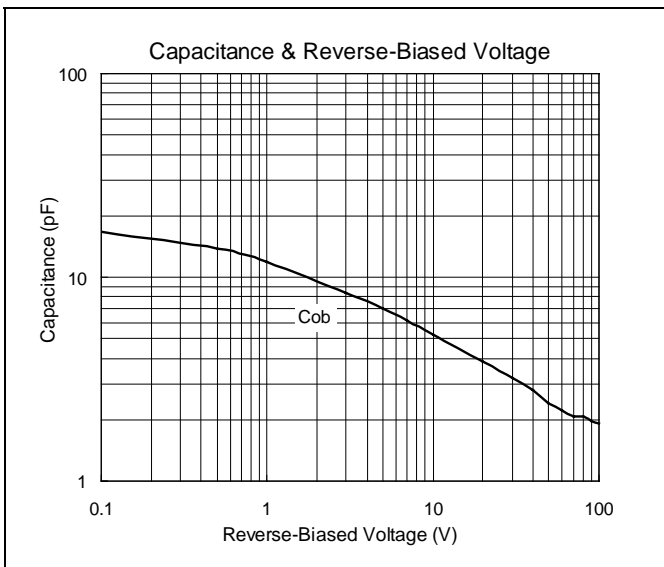
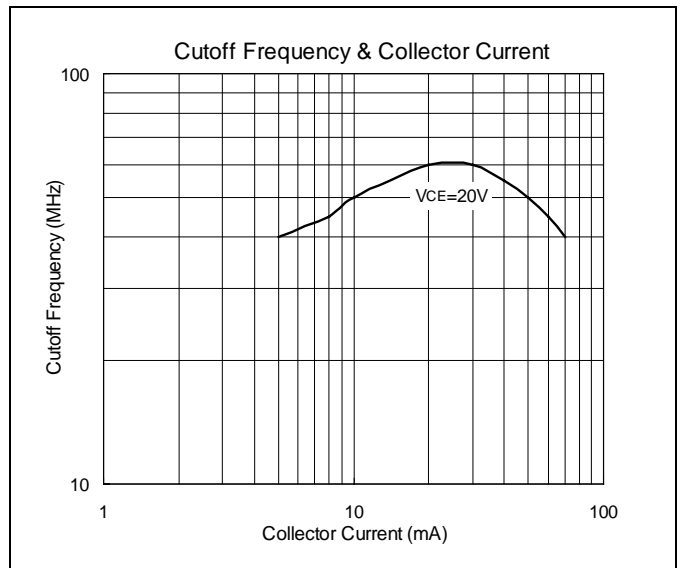
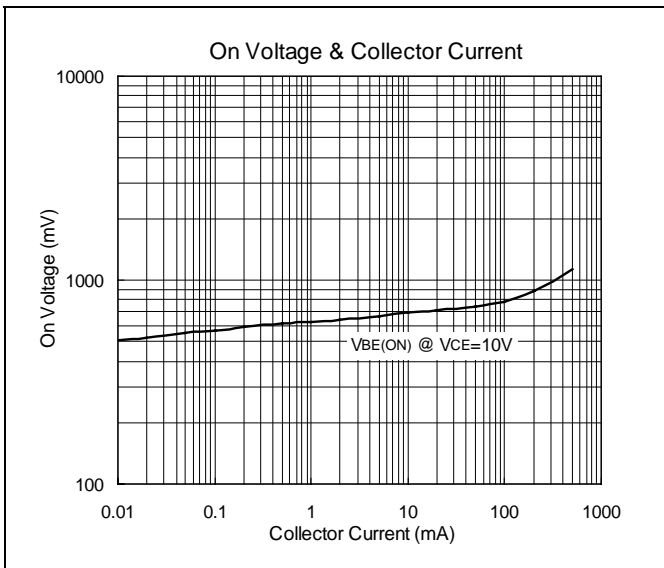
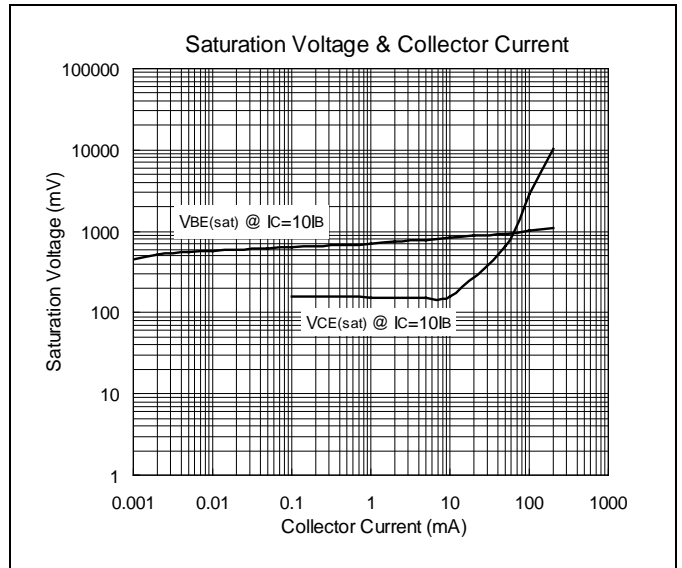
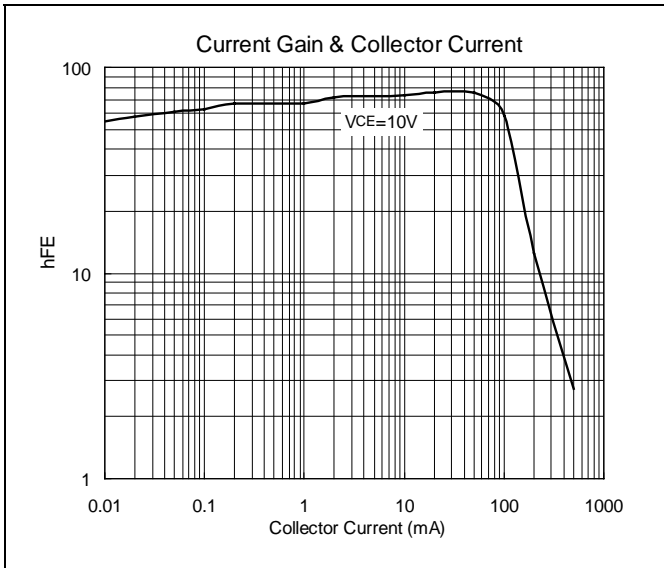
## Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-350	-	-	V	IC=-100uA
BVCEO	-350	-	-	V	IC=-1mA
BVEBO	-5	-	-	V	IE=-10uA
ICBO	-	-	-50	nA	VCB=-250V
IEBO	-	-	-50	nA	VEB=-4V
*VCE(sat)1	-	-	-300	mV	IC=-10mA, IB=-1mA
*VCE(sat)2	-	-	-350	mV	IC=-20mA, IB=-2mA
*VCE(sat)3	-	-	-500	mV	IC=-30mA, IB=-3mA
*VCE(sat)4	-	-	-1	V	IC=-50mA, IB=-5mA
VBE(on)	-	-	-2	V	VCE=-10V, IC=-100mA
*VBE(sat)1	-	-	-750	mV	IB=-1mA, IC=-10mA
*VBE(sat)2	-	-	-850	mV	IB=-2mA, IC=-20mA
*VBE(sat)3	-	-	-900	mV	IB=-3mA, IC=-30mA
*hFE1	20	-	-		VCE=-10V, IC=-1mA
*hFE2	30	-	-		VCE=-10V, IC=-10mA
*hFE3	30	-	200		VCE=-10V, IC=-30mA
*hFE4	20	-	200		VCE=-10V, IC=-50mA
*HFE5	15	-	-		VCE=-10V, IC=-100mA
fT	40	-	200	MHz	VCE=-20V, IC=-10mA, f=20MHz
Cob	-	-	6	pF	VCB=-20V, f=1MHz

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

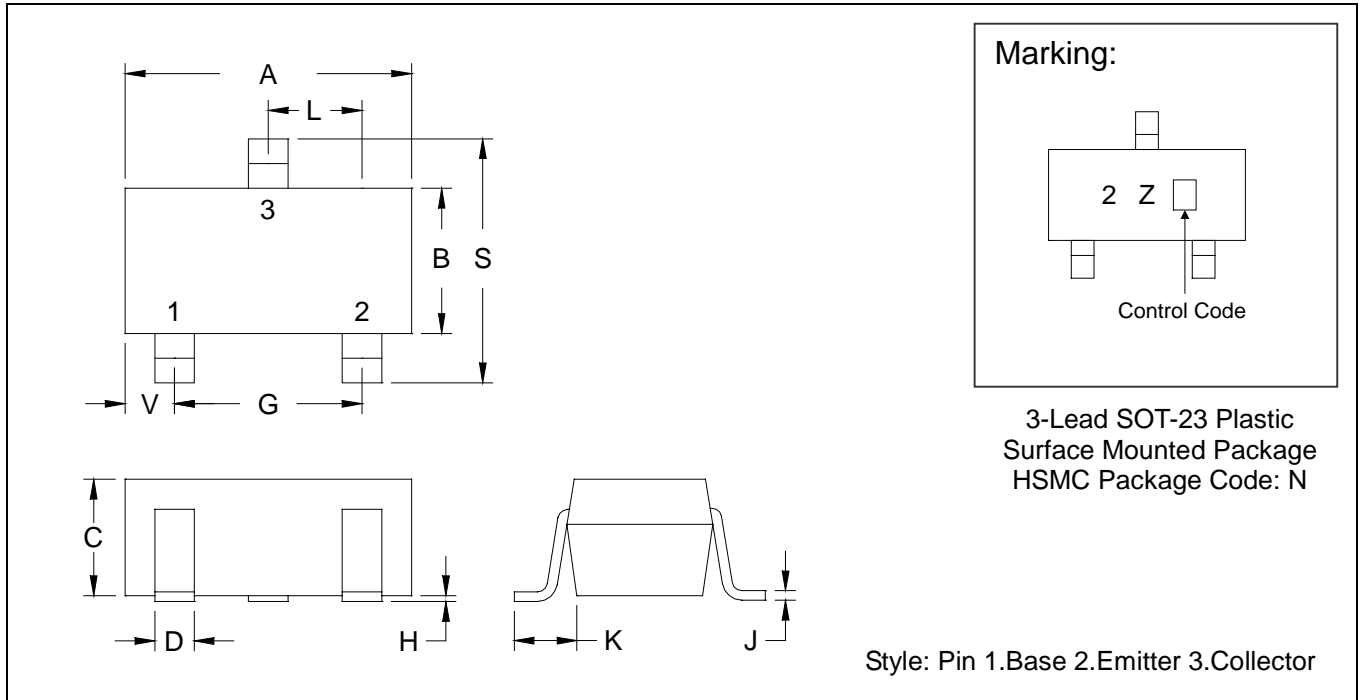


### Characteristics Curve





### 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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