



# HMBT6517

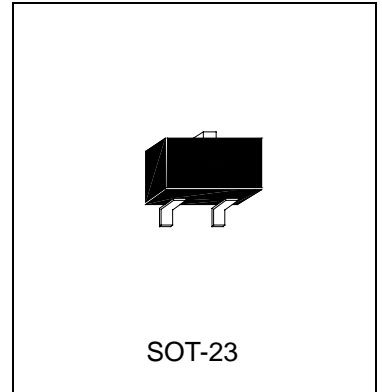
NPN EPITAXIAL PLANAR TRANSISTOR

## Description

The HMBT6517 is designed for general purpose applications requiring high breakdown voltages.

## Features

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



## 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

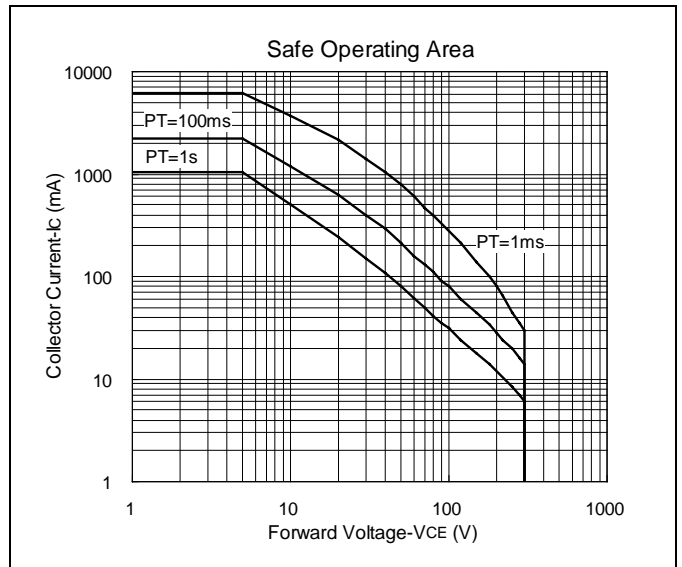
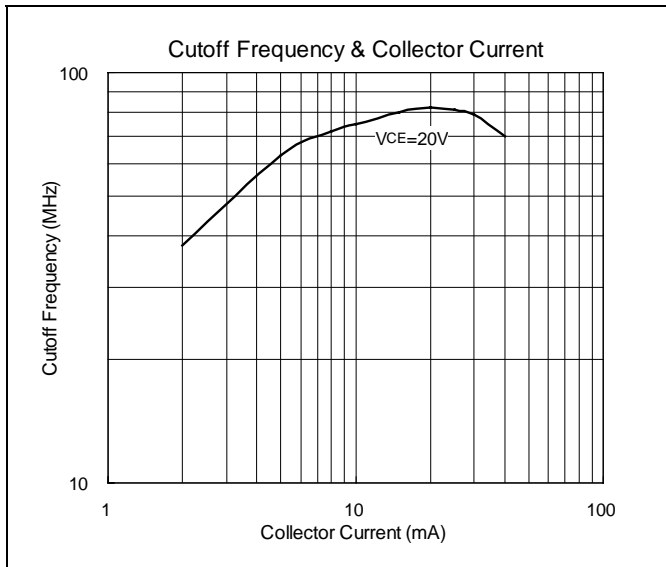
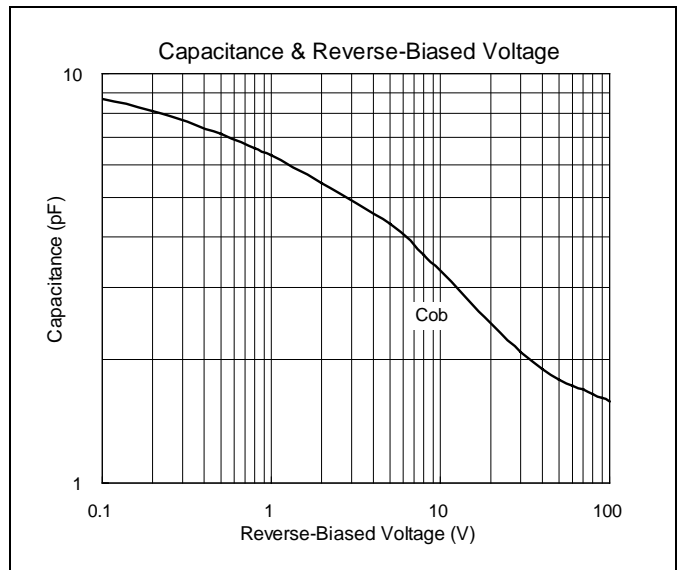
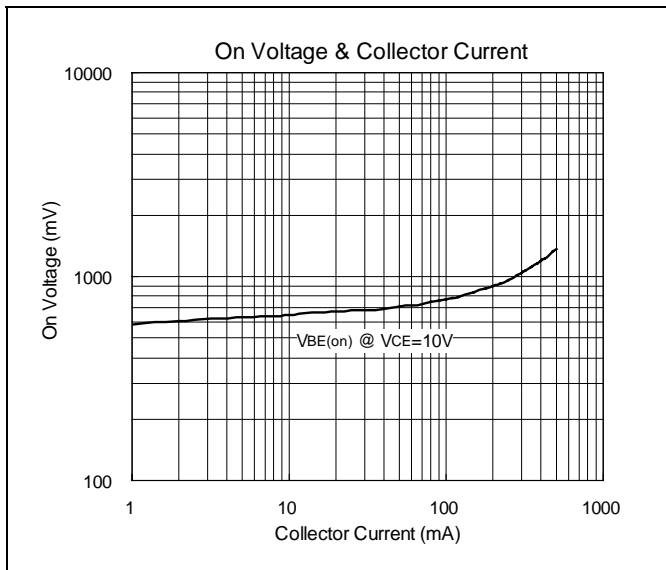
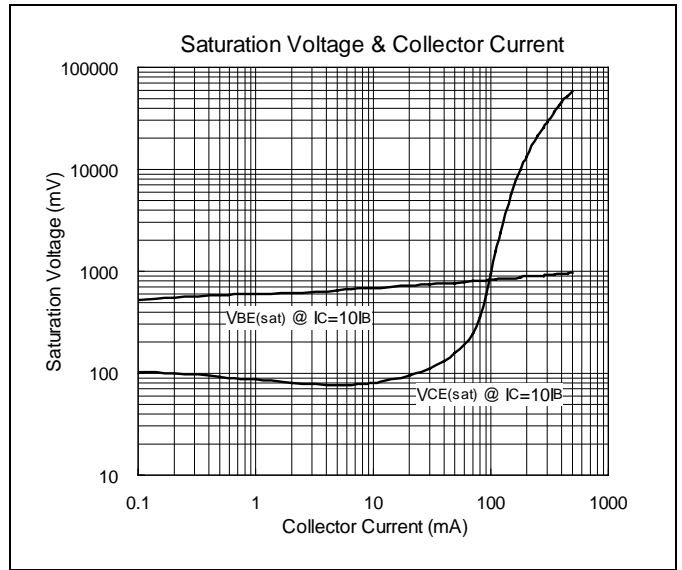
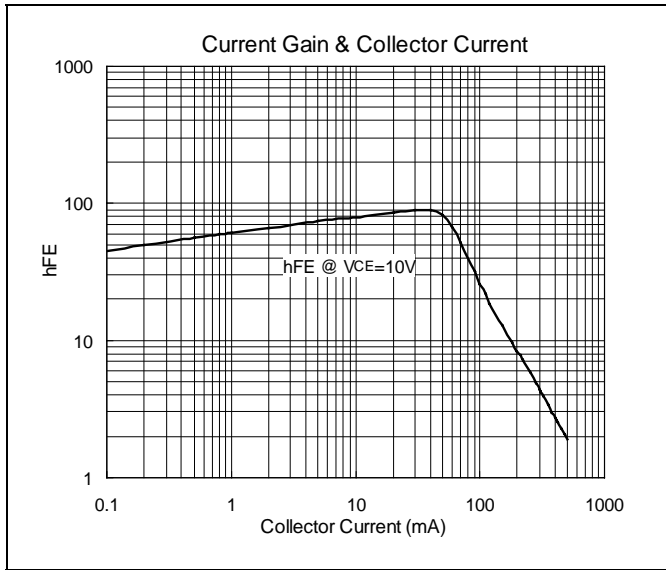
## Characteristics (Ta=25°C)

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=5V
*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	IC=10mA, VCE=20V, f=20MHz
Cob	-	-	6	pF	VCB=20V, f=1MHz

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

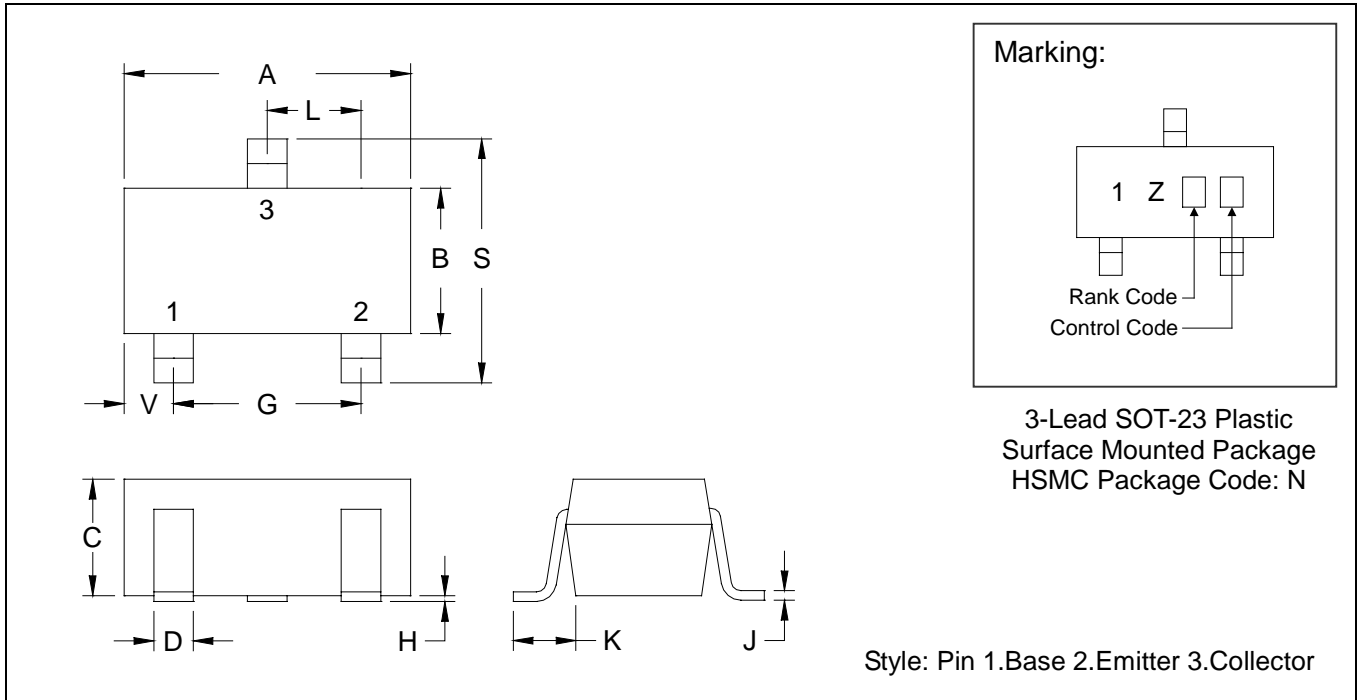


### Characteristics Curve





### 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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