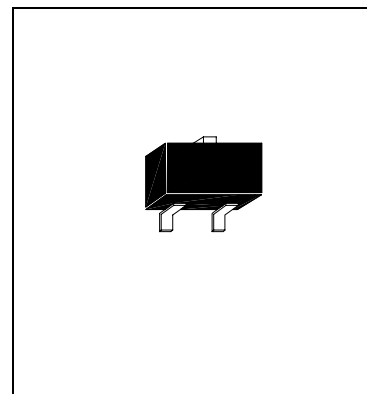




## MMBT2222ALT1

NPN EPITAXIAL PLANAR TRANSISTOR



### Description

The MMBT2222ALT1 is designed for general purpose amplifier and high-speed switching, medium-power switching applications.

### Features

- High frequency current gain.
- High Speed Switching.

### Absolute Maximum Ratings

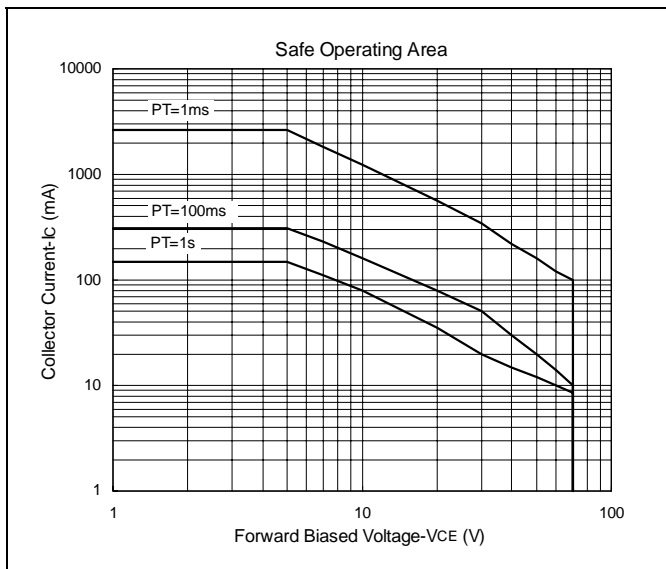
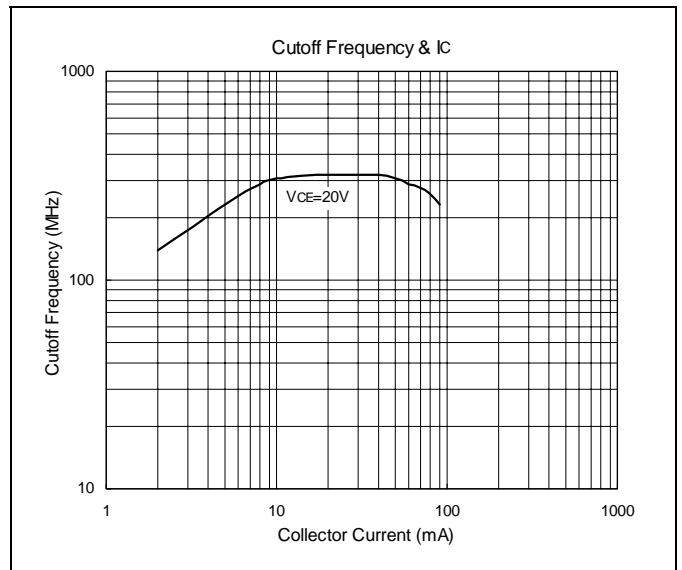
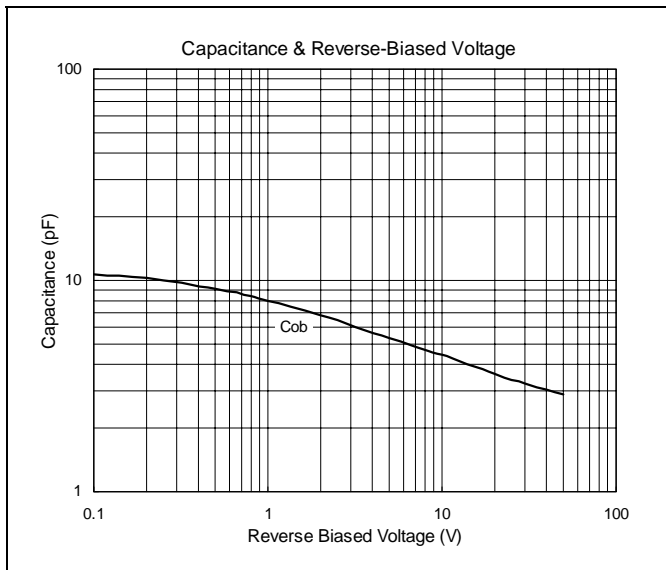
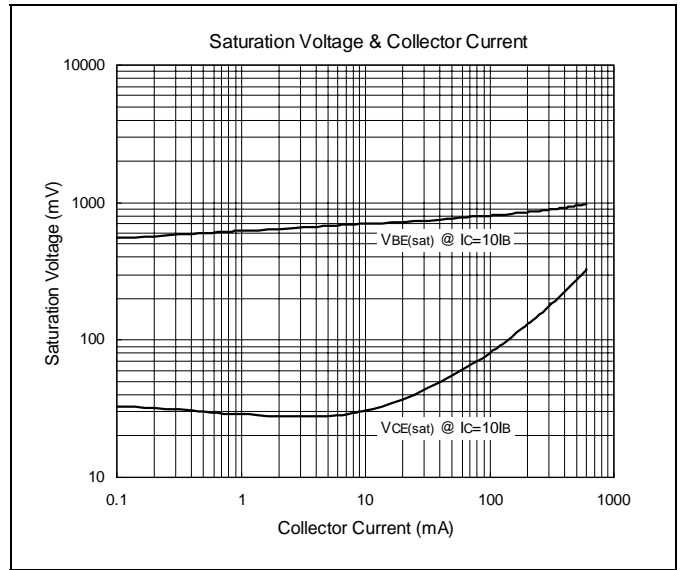
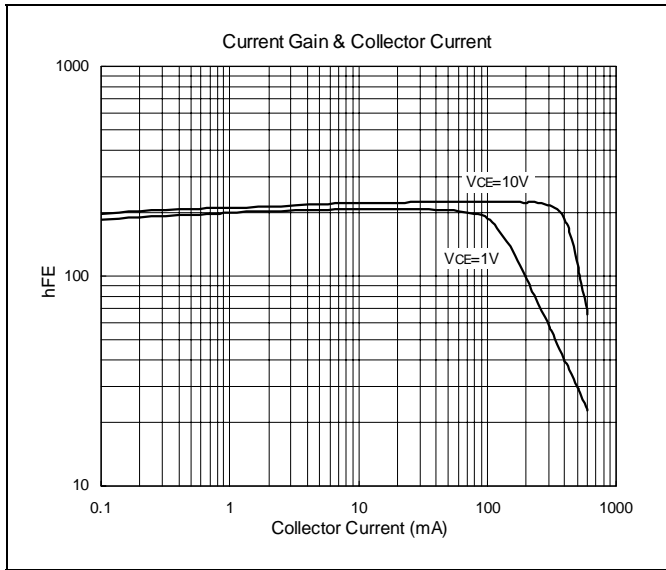
- Maximum Temperatures  
Storage Temperature..... -55~+150°C  
Junction Temperature..... +150°C
- Maximum Power Dissipation  
Total Power Dissipation (Ta=25°C) ..... 250 mW
- Maximum Voltages and Currents (Ta=25°C)  
VCBO Collector to Base Voltage ..... 75 V  
VCEO Collector to Emitter Voltage ..... 40 V  
VEBO Emitter to Base Voltage ..... 6 V  
IC Collector Current ..... 600 mA

### Characteristics (Ta=25°C)

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	75	-	-	V	IC=10uA
BVCEO	40	-	-	V	IC=10mA
BVEBO	6	-	-	V	IC=10uA
ICBO	-	-	10	nA	VCB=60V
ICEX	-	-	10	nA	VCE=60V, VEB(OFF)=3V
IEBO	-	-	10	nA	VEB=3V
VCE(sat)1	-	-	500	mV	IC=380mA, IB=10mA
VCE(sat)2	-	-	1.0	V	IC=500mA, IB=50mA
VBE(sat)1	-	-	1.2	V	IC=150mA, IB=15mA
VBE(sat)2	-	-	2.0	V	IC=500mA, IB=50mA
hFE1	35	-	-		VCE=10V, IC=100uA
hFE2	50	-	-		VCE=10V, IC=1mA
hFE3	75	-	-		VCE=10V, IC=10mA
hFE4	100	-	300		VCE=10V, IC=150mA
hFE5	40	-	-		VCE=10V, IC=500mA
fT	300	-	-	MHz	VCB=20V, IC=20mA, f=100MHz

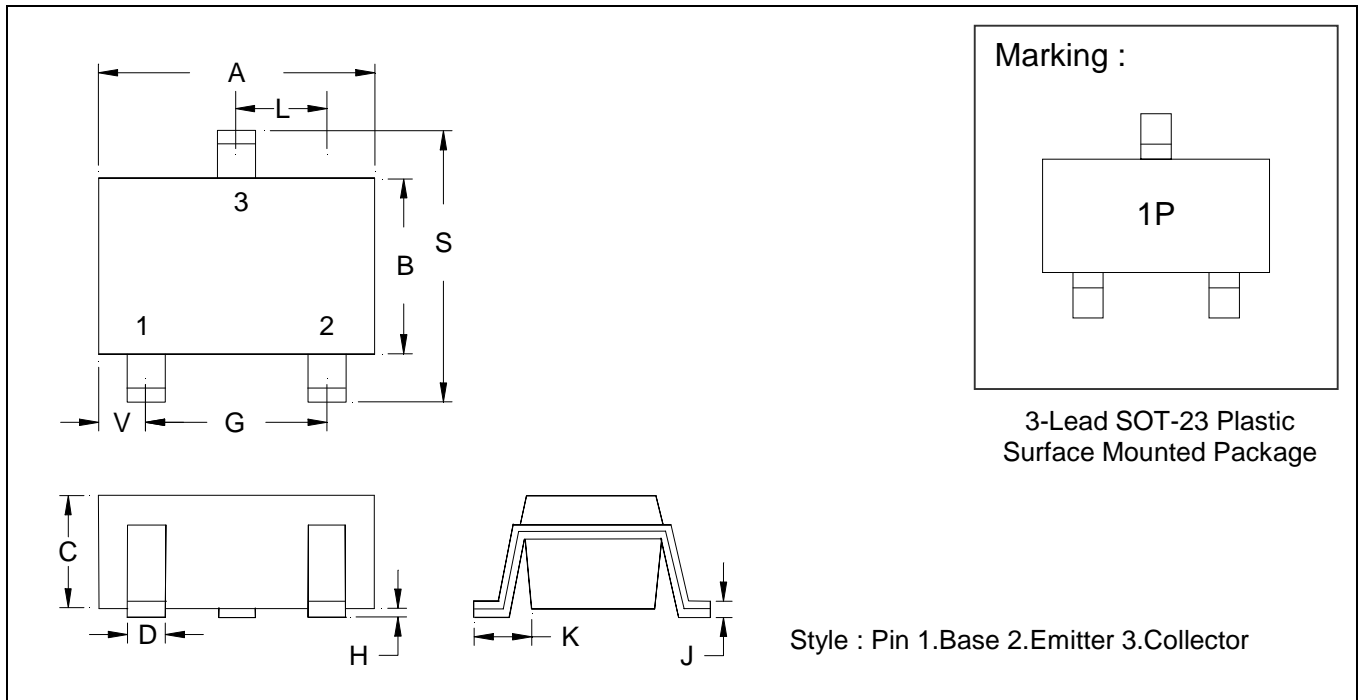


## Characteristics Curve





## SOT-23 Dimension



\*:Typical

DIM	Inches		Millimeters		DIM	Inches		Millimeters	
	Min.	Max.	Min.	Max.		Min.	Max.	Min.	Max.
A	0.1102	0.118	2.80	3.00	J	0.0035	0.0043	0.09	0.11
B	0.0550	0.0630	1.40	1.60	K	0.0128	0.0266	0.32	0.67
C	0.0354	0.0512	0.90	1.30	L	0.0335	0.0453	0.85	1.15
D	0.0118	0.0197	0.30	0.50	S	0.0886	0.1083	2.25	2.75
G	0.0669	0.0910	1.70	2.30	V	0.0098	0.0256	0.25	0.65
H	-	0.0040	-	0.10					