



## MMBT5401LT1

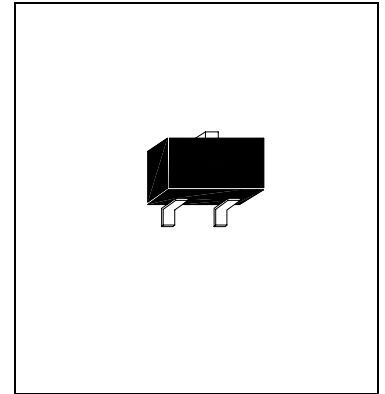
PNP EPITAXIAL PLANAR TRANSISTOR

### Description

The MMBT5401LT1 is designed for general purpose applications requiring high breakdown voltages.

### Features

- High Collector-Emitter Breakdown Voltage.  $BV_{CEO}=150V$ (@  $I_C=1mA$ )
- Complements to NPN Type MMBT5551LT1.



### Absolute Maximum Ratings

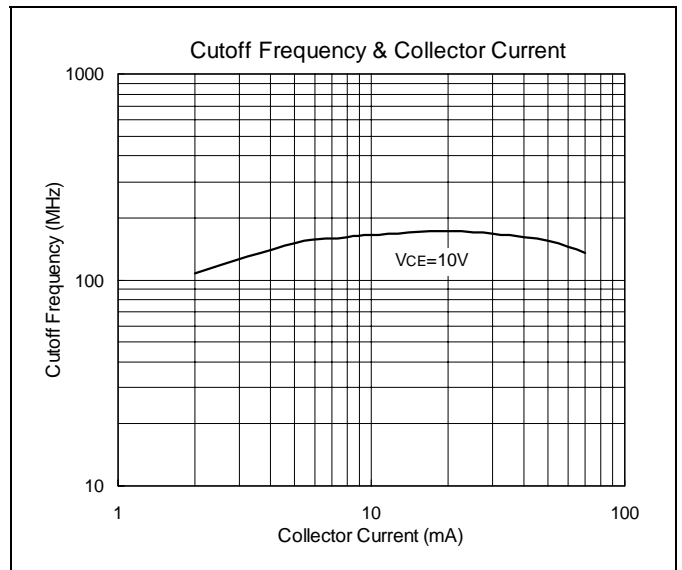
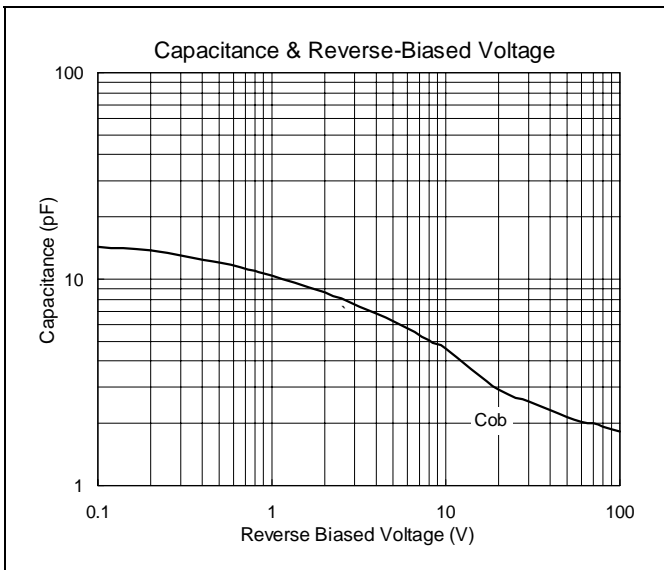
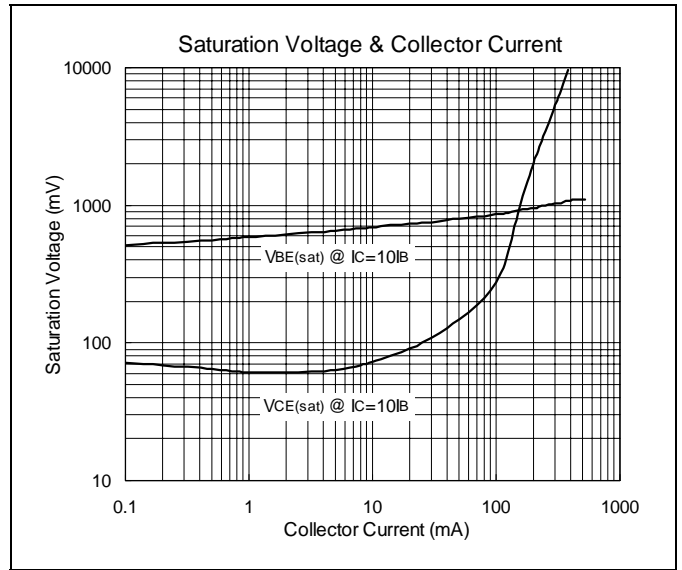
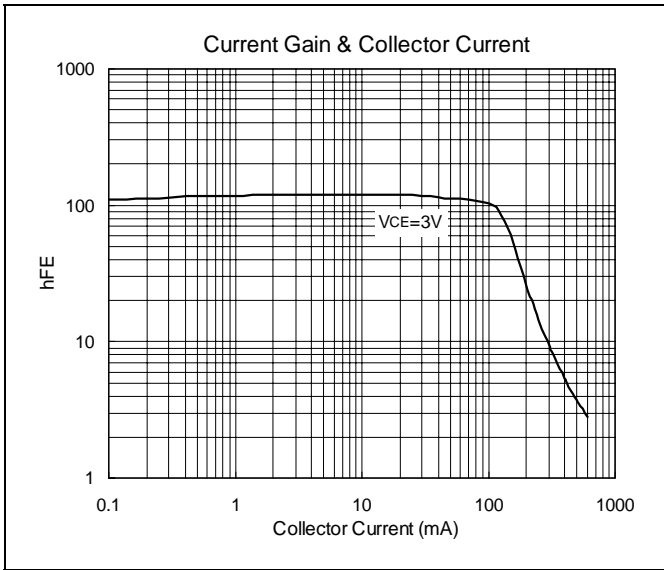
- Maximum Temperatures
  - Storage Temperature ..... -55~+150 °C
  - Junction Temperature ..... +150°C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation ( $T_a=25^{\circ}C$ ) ..... 250 mW
- Maximum Voltages and Currents ( $T_a=25^{\circ}C$ )
  - $V_{CBO}$  Collector to Base Voltage ..... 160 V
  - $V_{CEO}$  Collector to Emitter Voltage ..... 150 V
  - $V_{EBO}$  Emitter to Base Voltage ..... 5 V
  - $I_C$  Collector Current ..... 500mA

### Characteristics ( $T_a=25^{\circ}C$ )

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
$BV_{CBO}$	160	-	-	V	$I_C=100\mu A$
$BV_{CEO}$	150	-	-	V	$I_C=1mA$
$BV_{EBO}$	5	-	-	V	$I_E=10\mu A$
$I_{CBO}$	-	-	50	nA	$V_{CB}=120V$
$V_{CE(sat)1}$	-	-	200	mV	$I_C=10mA, I_B=1mA$
$V_{CE(sat)2}$	-	-	500	mV	$I_C=50mA, I_B=5mA$
$V_{BE(sat)1}$	-	-	1	V	$I_C=10mA, I_B=1mA$
$V_{BE(sat)2}$	-	-	1	V	$I_C=50mA, I_B=5mA$
$h_{FE1}$	50	-	-		$V_{CE}=5V, I_C=1mA$
$h_{FE2}$	60	-	240		$V_{CE}=5V, I_C=10mA$
$h_{FE3}$	50	-	-		$V_{CE}=5V, I_C=50mA$
$f_T$	100	-	300	MHz	$V_{CE}=10V, I_C=10mA, f=100MHz$
$C_{ob}$	-	-	6	pF	$V_{CB}=10V, f=1MHz$

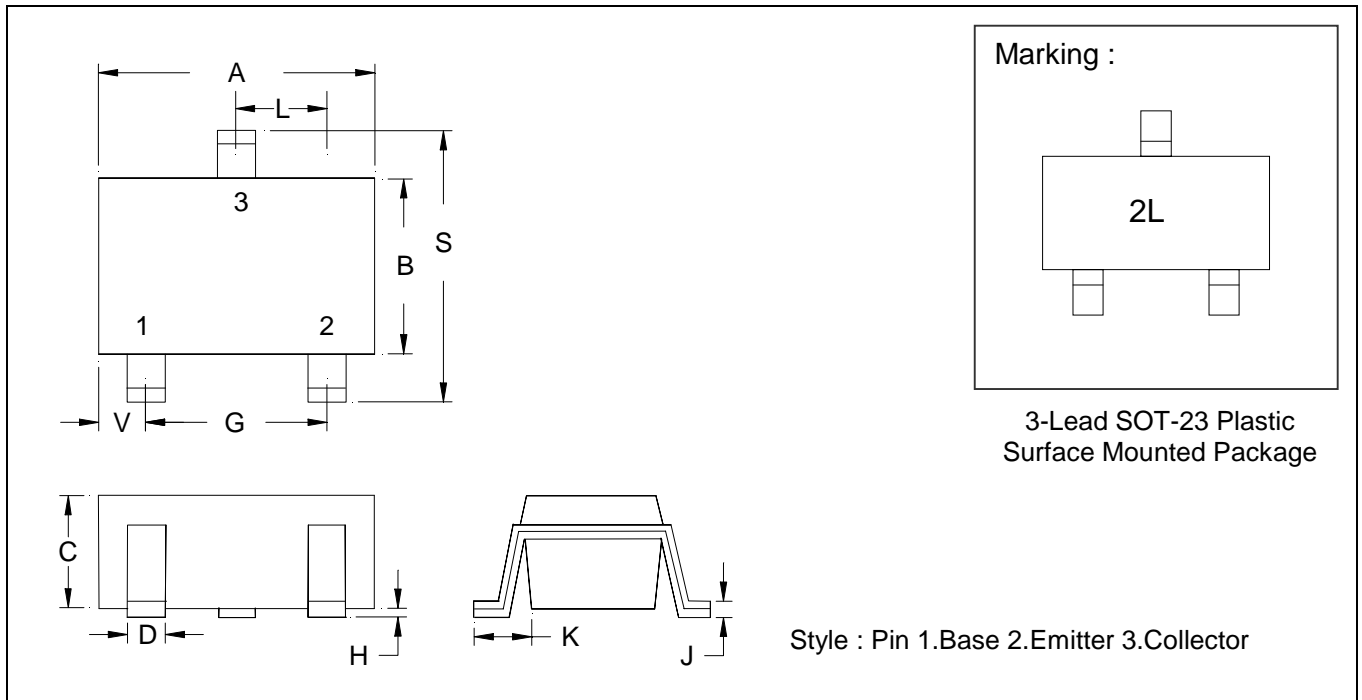


## Characteristics Curve





## 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					