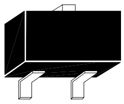
MMBTA42LT1

NPN EPITACIAL PLANAR TRANSISTOR



Description

High Voltage Transistor

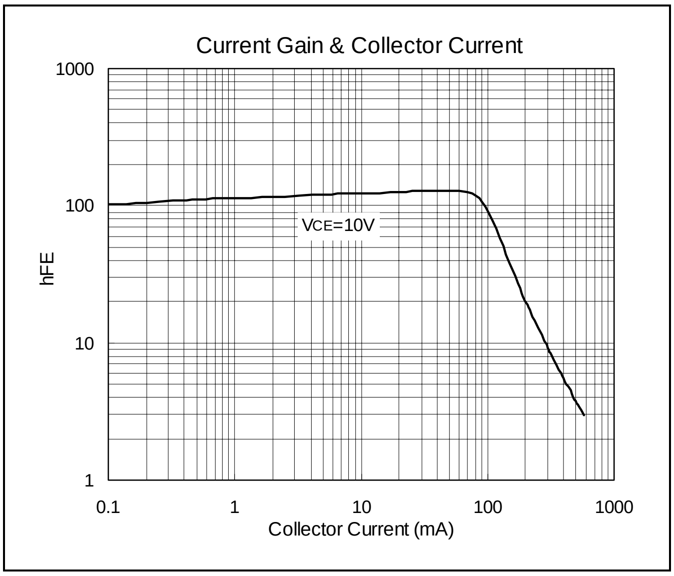
Absolute Maximum Ratings

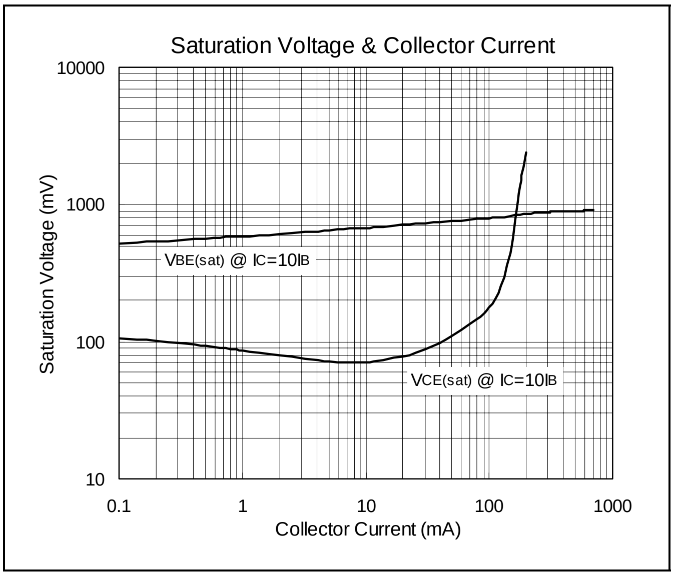
- Maximum Temperatures
  - Storage Temperature............ -55~+150°C
  - Junction Temperature............ +150°C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation (Ta=25°C) .... 250 mW
- Maximum Voltages and Currents (Ta=25°C)
  - VCBO Collector to Base Voltage .... 300 V
  - VCEO Collector to Emitter Voltage .... 300 V
  - VEBO Emitter to Base Voltage .... 6.0 V
  - IC Collector Current............ 500 mA

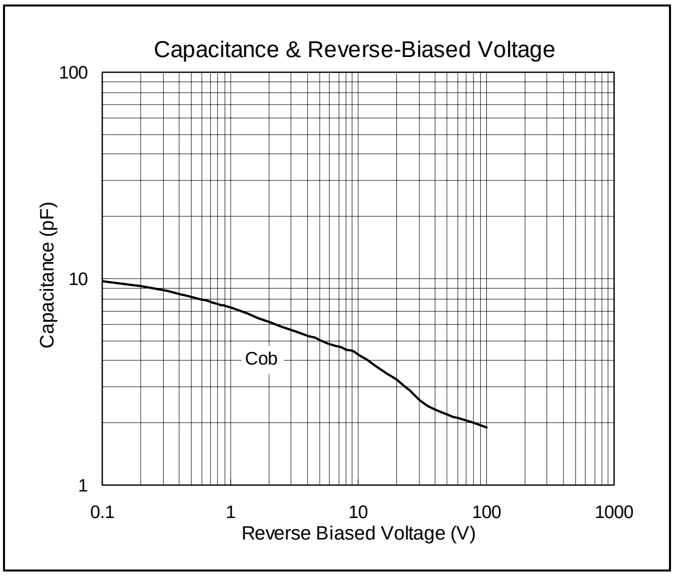
Characteristics (Ta=25°C)

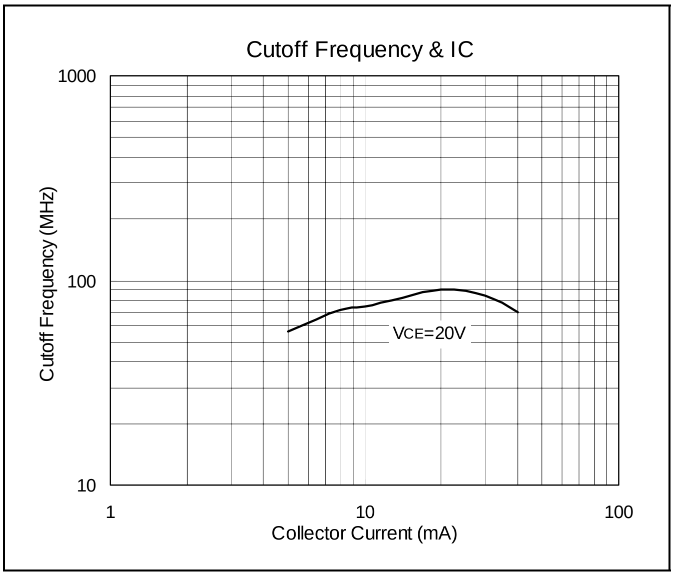
Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	300	-	-	V	IC=100uA
BVCEO	300	-	-	V	IC=1mA
BVEBO	6	-	-	V	IE=10uA
ICBO	-	-	100	nA	VCB=200V
IEBO	-	-	100	nA	VEB=6V
VCE(sat)	-	-	500	mV	IC=20mA, IB=2mA
VBE(sat)	-	-	900	mV	IC=20mA, IB=2mA
hFE1	25	-	-		IC=1mA, VCE=10V
hFE2	40	-	-		IC=10mA, VCE=10V
hFE3	40	-	-		IC=30mA, VCE=10V
fT	50	-	-	MHz	IC=10mA, VCE=20V, f=100MHz
Cob	-	-	3	pF	VCB=20V, f=1MHz

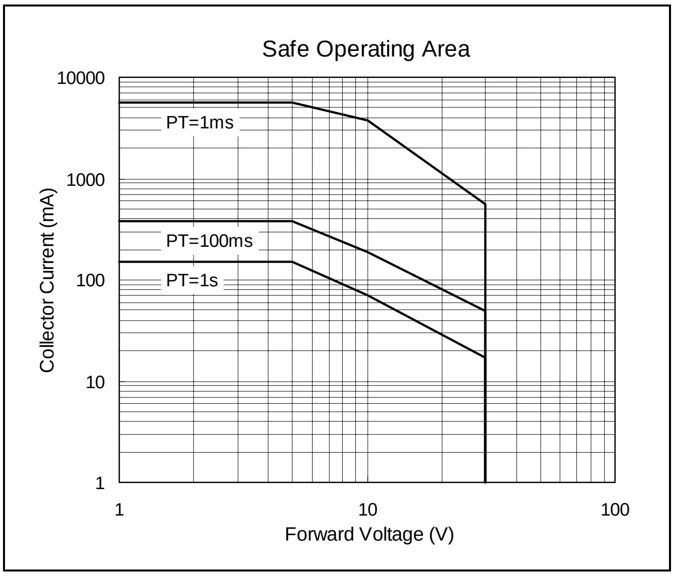
Characteristics Curve


Current Gain & Collector Current

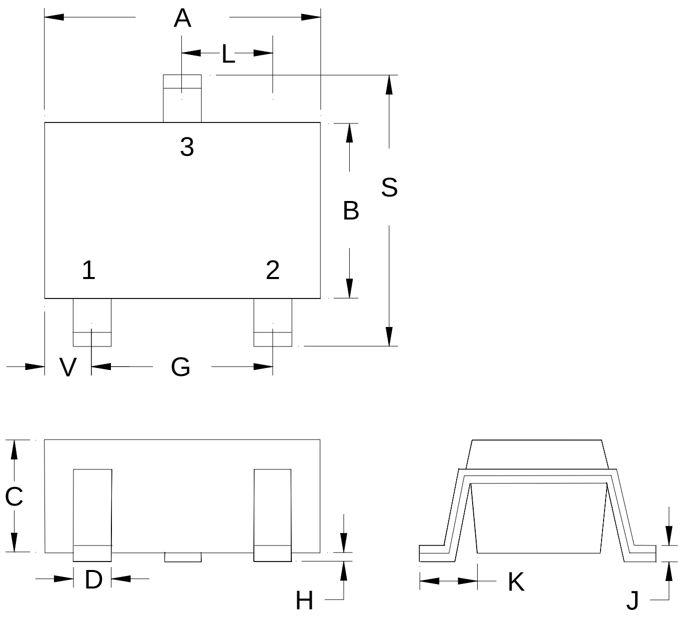

Saturation Voltage & Collector Current

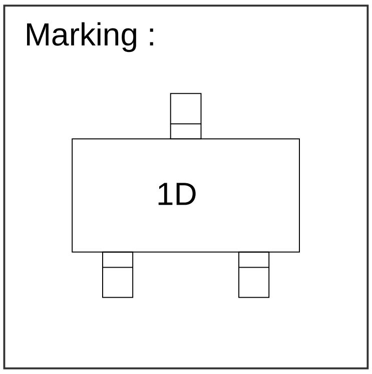

Capacitance & Reverse-Biased Voltage


Cutoff Frequency & IC


Safe Operating Area

SOT-23 Dimension





3-Lead SOT-23 Plastic
Surface Mounted Package

Style : Pin 1.Base 2.Emitter 3.Collector

*: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					