

**PNP EPITAXIAL PLANAR TRANSISTOR**

We declare that the material of product compliance with RoHS requirements.

**Pb-Free package is available**

RoHS product for packing code suffix "G"

Halogen free product for packing code suffix "H"

**Description**

The MMBTA94LT1 is designed for application that requires high voltage.

**Features**

- High Breakdown Voltage:  $V_{CEO}=400(\text{Min.})$  at  $I_C=1\text{mA}$
- Complementary to MMBTA94LT1

**DEVICE MARKING**

MMBTA94LT1 = 4Z

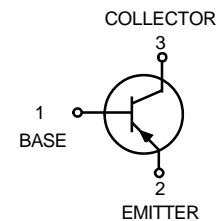
**Absolute Maximum Ratings**

- Maximum Temperatures
  - Storage Temperature ..... -55 ~ +150 °C
  - Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation
  - Total Power Dissipation ( $T_a=25^\circ\text{C}$ ) ..... 350 mW
- Maximum Voltages and Currents ( $T_a=25^\circ\text{C}$ )
  - VCBO Collector to Base Voltage ..... -400 V
  - VCEO Collector to Emitter Voltage ..... -400 V
  - VEBO Emitter to Base Voltage ..... -6 V
  - IC Collector Current ..... -150 mA

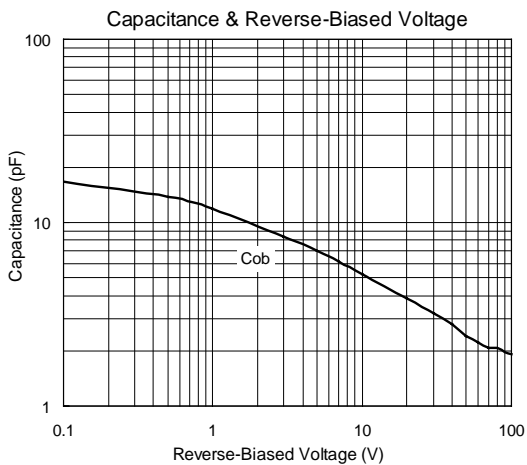
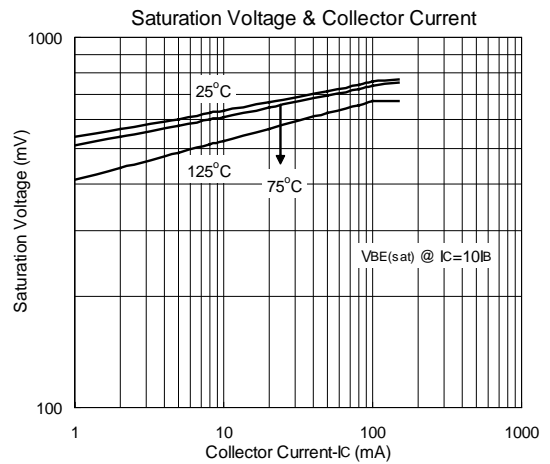
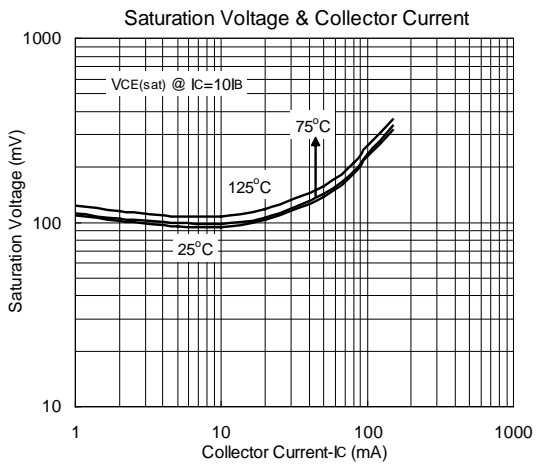
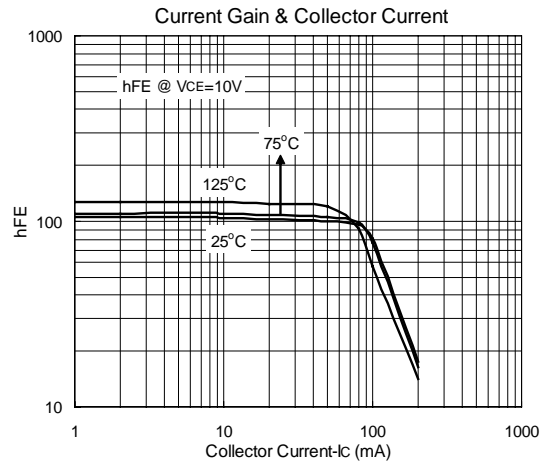
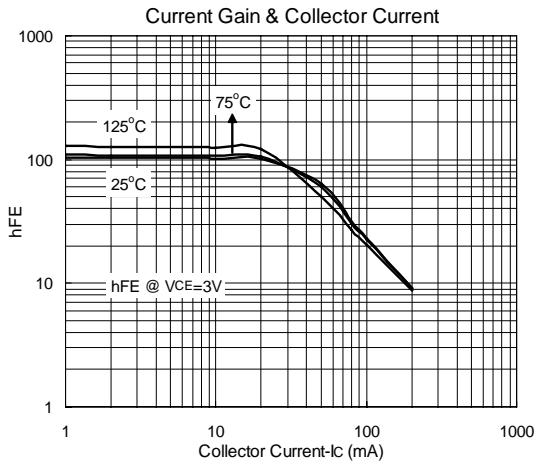
**Characteristics** ( $T_a=25\text{ C}$ )

Symbol	Min.	Typ.	Max.	Unit	Test Conditions
BVCBO	-400	-	-	V	$I_C=-100\mu\text{A}, I_E=0$
BVCEO	-400	-	-	V	$I_C=-1\text{mA}, I_B=0$
BVEBO	-6	-	-	V	$I_E=-10\mu\text{A}, I_C=0$
ICBO	-	-	-100	nA	$V_{CB}=-400\text{V}, I_E=0$
IEBO	-	-	-100	nA	$V_{EB}=-6\text{V}, I_C=0$
ICES	-	-	-500	nA	$V_{CE}=-400\text{V}, V_{BE}=0$
*VCE(sat)1	-	-	-200	mV	$I_C=-1\text{mA}, I_B=-0.1\text{mA}$
*VCE(sat)2	-	-	-300	mV	$I_C=-10\text{mA}, I_B=-1\text{mA}$
*VCE(sat)3	-	-	-600	mV	$I_C=-50\text{mA}, I_B=-5\text{mA}$
*VBE(sat)	-	-	-900	mV	$I_C=-10\text{mA}, I_B=-1\text{mA}$
*hFE1	50	-	-		$V_{CE}=-10\text{V}, I_C=-1\text{mA}$
*hFE2	75	-	200		$V_{CE}=-10\text{V}, I_C=-10\text{mA}$
*hFE3	60	-	-		$V_{CE}=-10\text{V}, I_C=-50\text{mA}$
*hFE4	20	-	-		$V_{CE}=-10\text{V}, I_C=-100\text{mA}$
Cob	-	4	6	pF	$V_{CE}=-10\text{V}, f=1\text{MHz}$

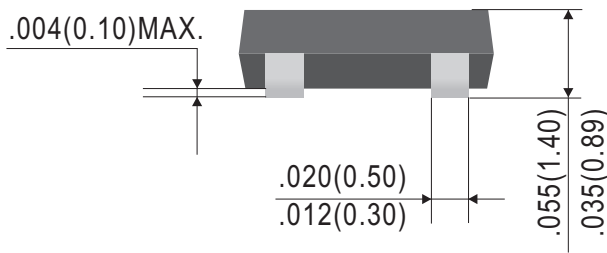
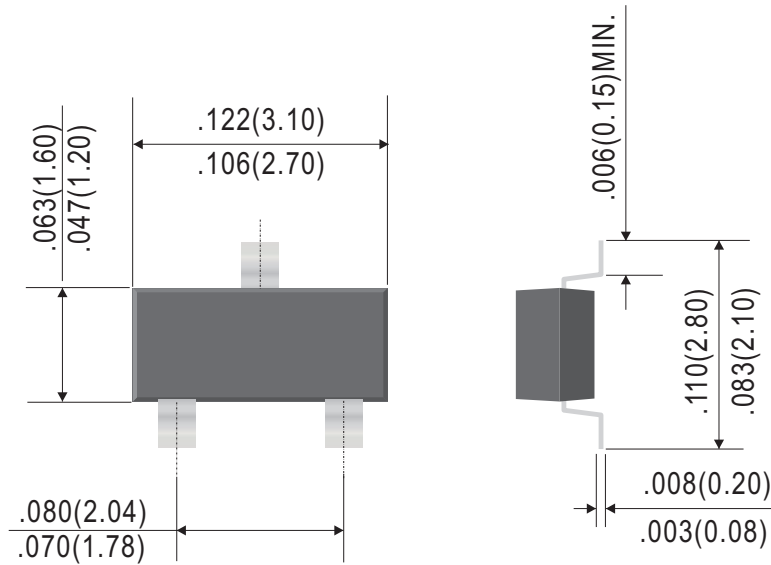
\*Pulse Test: Pulse Width  $\leq 380\mu\text{s}$ , Duty Cycle  $\leq 2\%$



### Characteristics Curve



**SOT-23**



Dimensions in inches and (millimeters)

