

LMBTA94LT1G

PNP EPITAXIAL PLANAR TRANSISTOR

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

Description

The LMBTA94LT1G 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 LMBTA94LT1G

DEVICE MARKING

LMBTA94LT1G = 4Z

Absolute Maximum Ratings

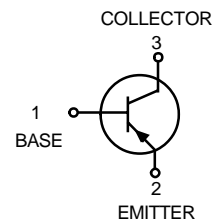
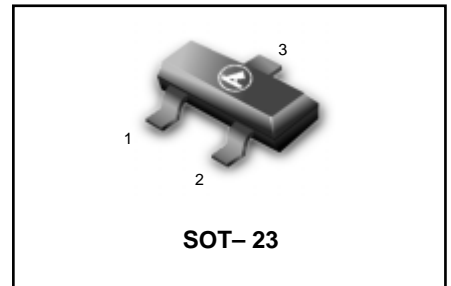
- Maximum Temperatures
 - Storage Temperature -55 ~ +150 °C
 - Junction Temperature +150 °C Maximum
- Maximum Power Dissipation
 - Total Power Dissipation ($T_a=25^\circ\text{C}$) 350 mW
- Maximum Voltages and Currents ($T_a=25^\circ\text{C}$)
 - VCBO Collector to Base Voltage -400 V
 - VCEO Collector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

Characteristics (Ta=25 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 | $V_{CE}=-10\text{V}, f=1\text{MHz}$ |

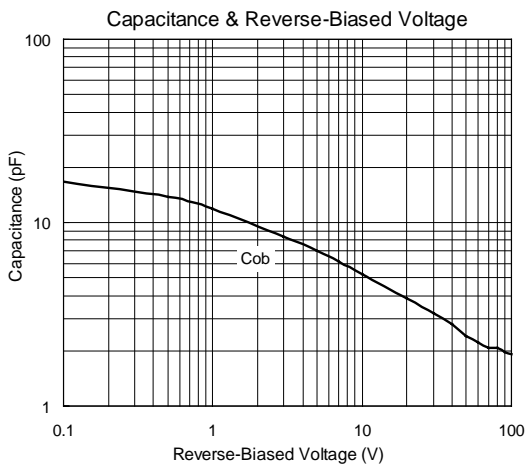
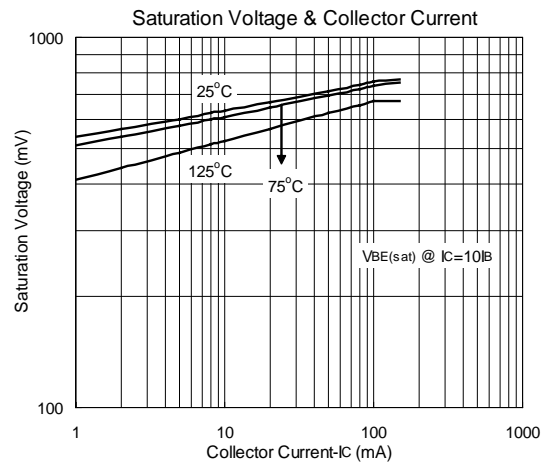
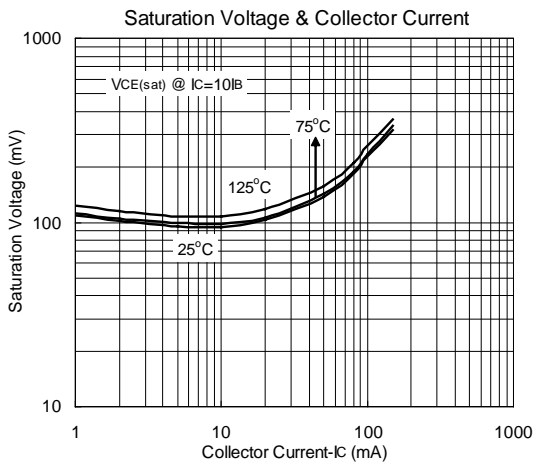
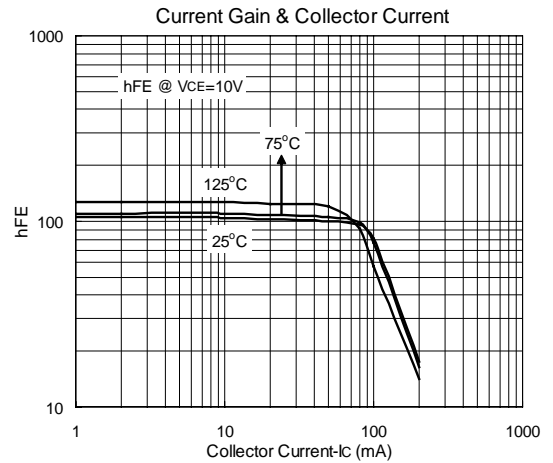
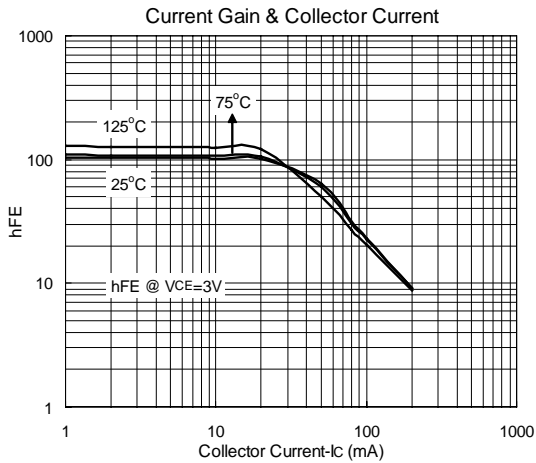
*Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

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Characteristics Curve

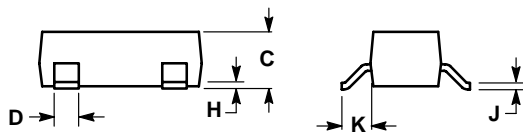
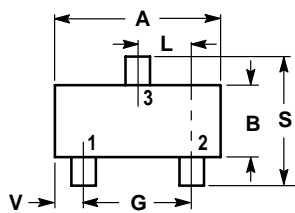


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NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.



| DIM | INCHES | | MILLIMETERS | |
|-----|--------|--------|-------------|-------|
| | MIN | MAX | MIN | MAX |
| A | 0.1102 | 0.1197 | 2.80 | 3.04 |
| B | 0.0472 | 0.0551 | 1.20 | 1.40 |
| C | 0.0350 | 0.0440 | 0.89 | 1.11 |
| D | 0.0150 | 0.0200 | 0.37 | 0.50 |
| G | 0.0701 | 0.0807 | 1.78 | 2.04 |
| H | 0.0005 | 0.0040 | 0.013 | 0.100 |
| J | 0.0034 | 0.0070 | 0.085 | 0.177 |
| K | 0.0140 | 0.0285 | 0.35 | 0.69 |
| L | 0.0350 | 0.0401 | 0.89 | 1.02 |
| S | 0.0830 | 0.1039 | 2.10 | 2.64 |
| V | 0.0177 | 0.0236 | 0.45 | 0.60 |

- PIN 1. BASE
 2. EMITTER
 3. COLLECTOR

