

LMBT5551LT1G

S-LMBT5551LT1G

High Voltage Transistors

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2. DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|--------------|---------|-----------------|
| LMBT5551LT1G | G1 | 3000/Tape&Reel |
| LMBT5551LT3G | G1 | 10000/Tape&Reel |

3. MAXIMUM RATINGS(Ta = 25°C)

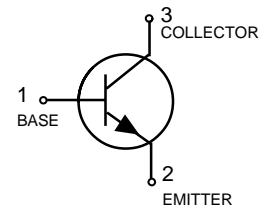
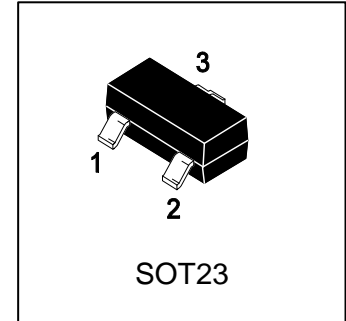
| Parameter | Symbol | Limits | Unit |
|-------------------------------|------------------|--------|------|
| Collector-Emitter Voltage | V _{CEO} | 160 | V |
| Collector-Base voltage | V _{CBO} | 180 | V |
| Emitter-Base Voltage | V _{EB0} | 6 | V |
| Collector current--Continuous | I _C | 600 | mA |

4. THERMAL CHARACTERISTICS

| Parameter | Symbol | Limits | Unit |
|---|-----------------------------------|------------|-------------|
| Total Device Dissipation, FR-5 Board (Note 1) @ TA = 25°C Derate above 25°C | PD | 225 1.8 | mW mW/°C |
| Thermal Resistance, Junction-to-Ambient | R _{θJA} | 556 | °C/W |
| Total Device Dissipation, Alumina Substrate, (Note 2) @ TA = 25°C Derate above 25°C | PD | 300 2.4 | mW mW/°C |
| Thermal Resistance, Junction-to-Ambient | R _{θJA} | 417 | °C/W |
| Junction and Storage temperature | T _J , T _{stg} | -55~+150 | °C |

1. FR-5 = 1.0×0.75×0.062 in.

2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.



5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

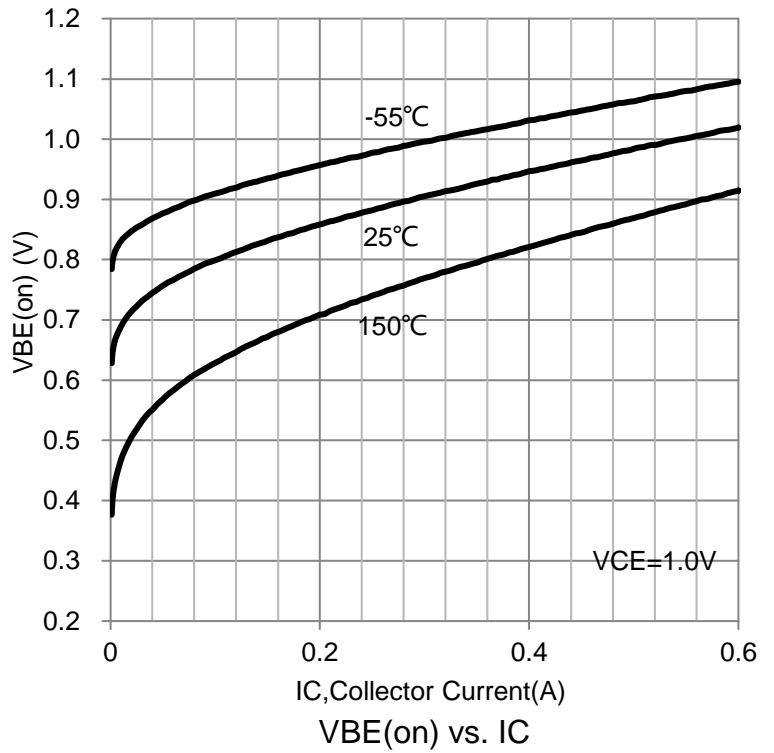
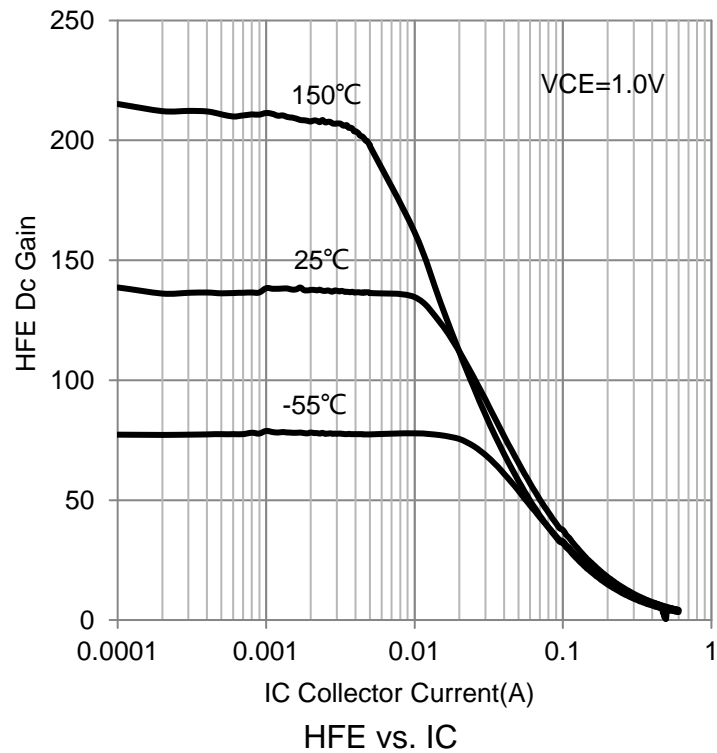
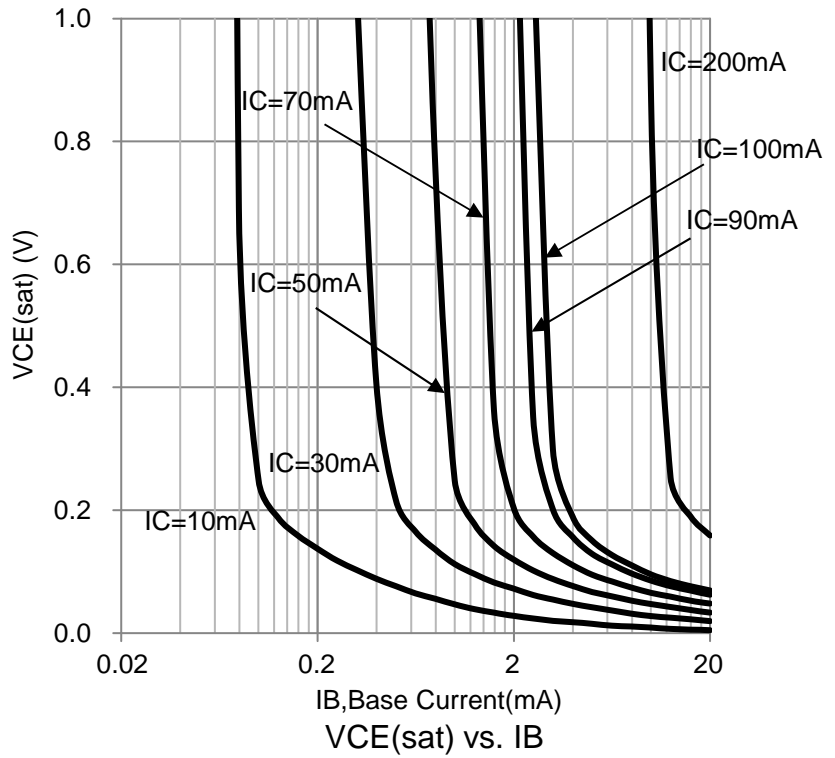
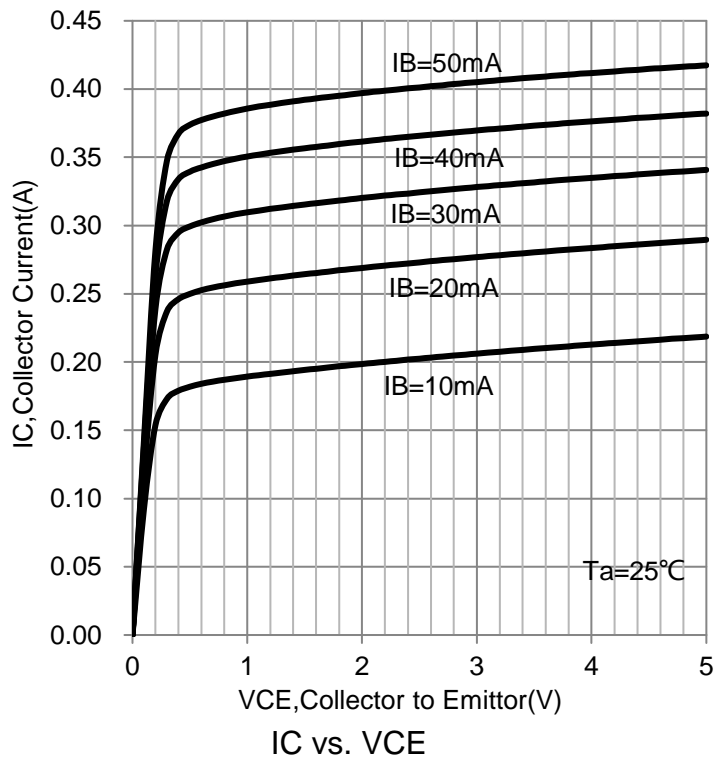
| Characteristic | Symbol | Min. | Typ. | Max. | Unit |
|--|----------|------|------|------|------|
| Collector-Emitter Breakdown Voltage (IC = 1.0 mA, IB = 0) | V(BR)CEO | 160 | - | - | V |
| Collector-Base Breakdown voltage (IC = 100μA, IE = 0) | V(BR)CBO | 180 | - | - | V |
| Emitter-Base Breakdown Voltage (IE = 10 μA, IC = 0) | V(BR)EBO | 6 | - | - | V |
| Collector Cutoff Current (VCB = 120 V, IE = 0) | ICBO | - | - | 50 | nA |
| (VCB = 120 V, IE = 0, TA = 100°C) | | - | - | 50 | μA |
| Emitter Cutoff Current (VEB = 4.0 V, IC = 0) | IEBO | - | - | 50 | nA |

ON CHARACTERISTICS

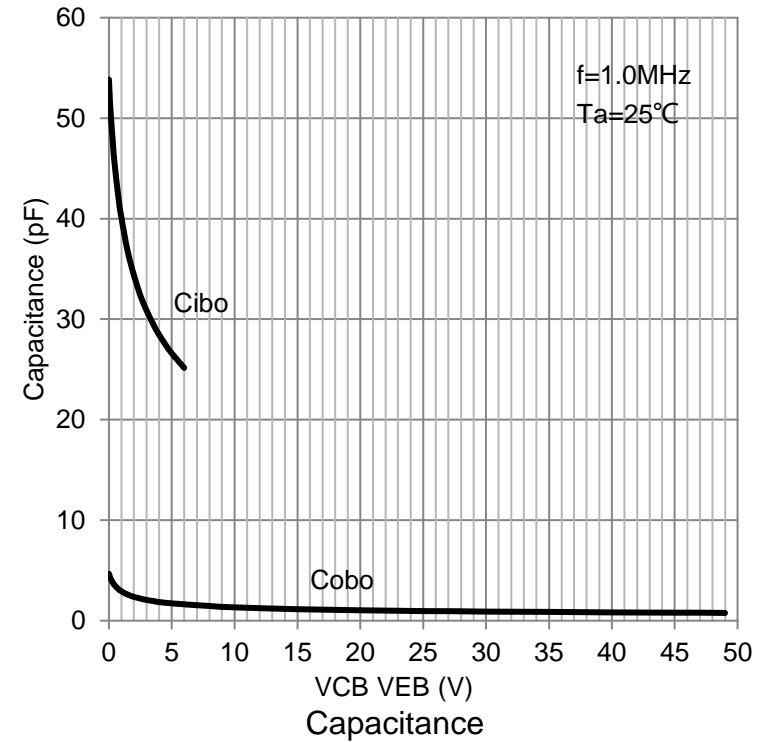
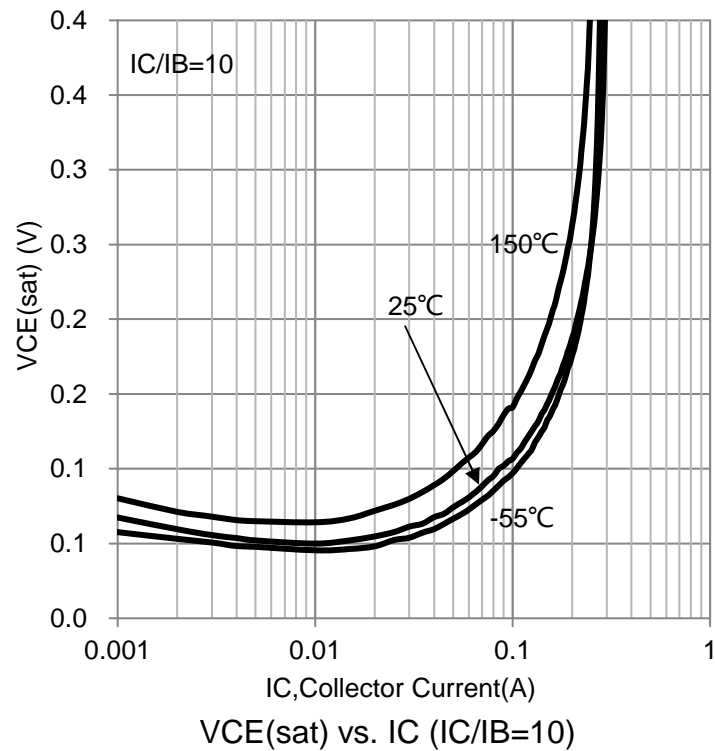
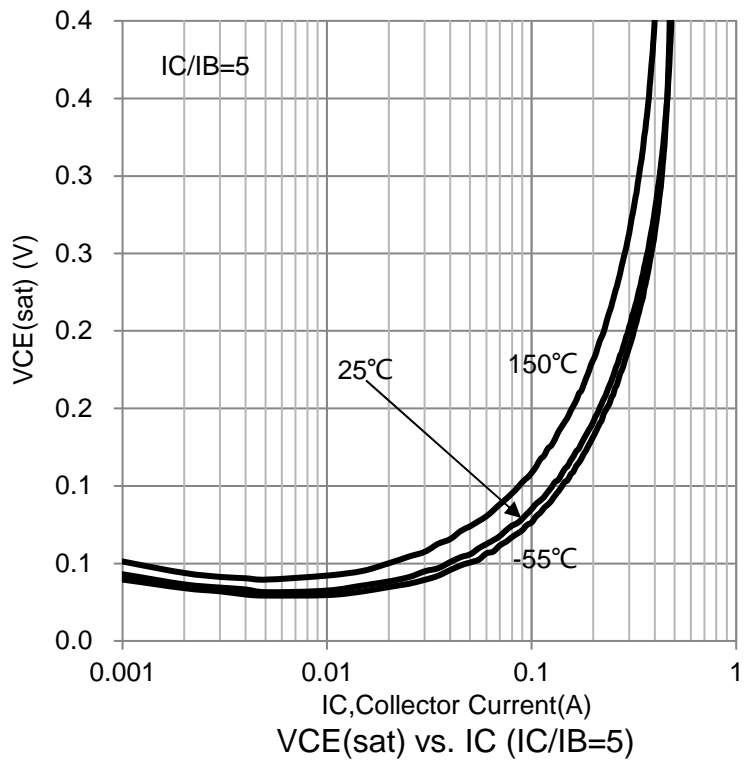
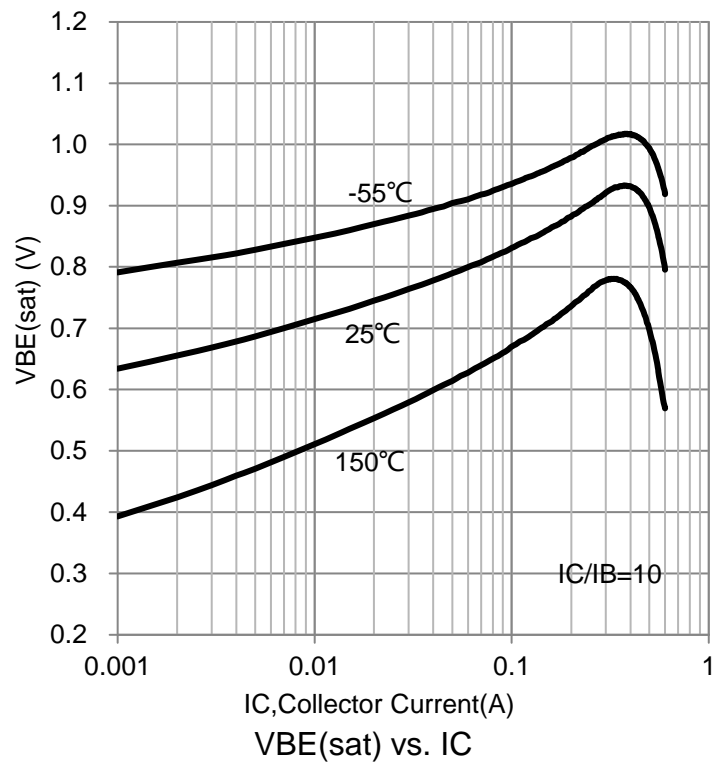
| | | | | | |
|---|--------|----|---|------|----|
| DC Current Gain (IC = 1.0 mA, VCE = 5.0 V) | HFE | 80 | - | - | |
| (IC = 10 mA, VCE = 5.0 V) | | 80 | - | 250 | |
| (IC = 50 mA, VCE = 5.0 V) | | 30 | - | - | |
| Collector-Emitter Saturation Voltage (IC = 10 mA, IB = 1.0 mA) | VCE(S) | - | - | 0.15 | V |
| (IC = 50 mA, IB = 5.0 mA) | | - | - | 0.2 | |
| Base-Emitter Saturation Voltage (IC = 10 mA, IB = 1.0 mA) | VBE(S) | - | - | 1 | V |
| (IC = 50 mA, IB = 5.0 mA) | | - | - | 1 | |
| Collector Emitter Cut-off Current (VCB = 10 V) | ICES | - | - | 50 | nA |
| (VCB = 75 V) | | - | - | 100 | |

3. Pulse Test: Pulse Width = 300 μs, Duty Cycle = 2.0%.

6.ELECTRICAL CHARACTERISTICS CURVES



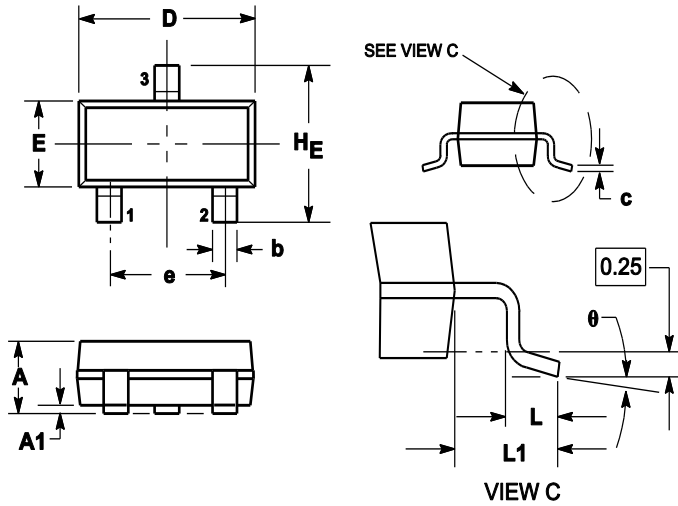
6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7. OUTLINE AND DIMENSIONS

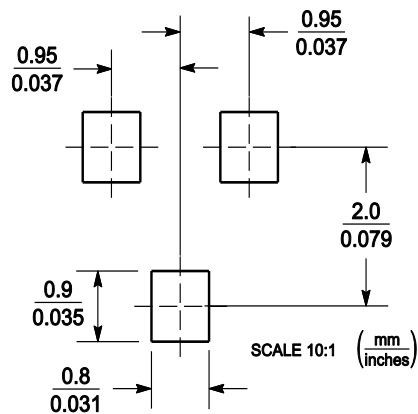
Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



| DIM | MILLIMETERS | | | INCHES | | |
|-----|-------------|------|------|--------|-------|-------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | 0.89 | 1 | 1.11 | 0.035 | 0.04 | 0.044 |
| A1 | 0.01 | 0.06 | 0.1 | 0.001 | 0.002 | 0.004 |
| b | 0.37 | 0.44 | 0.5 | 0.015 | 0.018 | 0.02 |
| c | 0.09 | 0.13 | 0.18 | 0.003 | 0.005 | 0.007 |
| D | 2.80 | 2.9 | 3.04 | 0.11 | 0.114 | 0.12 |
| E | 1.20 | 1.3 | 1.4 | 0.047 | 0.051 | 0.055 |
| e | 1.78 | 1.9 | 2.04 | 0.07 | 0.075 | 0.081 |
| L | 0.10 | 0.2 | 0.3 | 0.004 | 0.008 | 0.012 |
| L1 | 0.35 | 0.54 | 0.69 | 0.014 | 0.021 | 0.029 |
| HE | 2.10 | 2.4 | 2.64 | 0.083 | 0.094 | 0.104 |
| θ | 0° | --- | 10° | 0° | --- | 10° |

8. SOLDERING FOOTPRINT



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [Leshan manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC4731T-AY](#) [FJPF5304DTU](#)
[2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SB1324-TD-E](#) [2SC2412KT146S](#) [2SC3332T](#) [2SC3902S](#) [2SC5231C8-TL-E](#) [2SD1685F](#) [CPH6501-TL-E](#)
[MCH4021-TL-E](#) [MJE340](#) [Jantx2N5416](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#)
[UMX21NTR](#) [MCH6102-TL-E](#) [NJL0302DG](#) [TTA1452B,S4X\(S](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#) [NTE350](#) [NTE81](#)