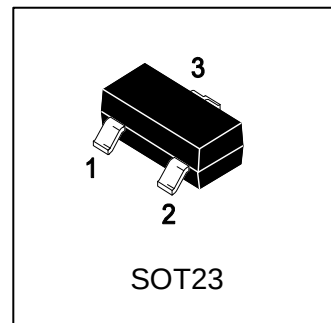


S-LMBT5551LT1G

High Voltage Transistors

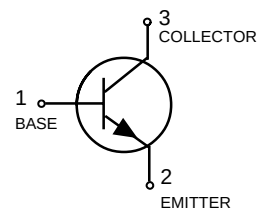
1. FEATURES

- 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
S-LMBT5551LT1G	G1	3000/Tape&Reel
S-LMBT5551LT3G	G1	13000/Tape&Reel



3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector-Emitter Voltage	VCEO	160	V
Collector-Base voltage	VCBO	180	V
Emitter-Base Voltage	VEBO	6	V
Collector current--Continuous	IC	600	mA
Junction temperature	Tj	-55~+150	°C
Storage temperature	Tstg	-55~+150	°C

4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 1) @ TA = 25°C	PD	319	mW
Derate above 25°C		2.6	mW/°C
Thermal Resistance, Junction-to-Ambient	RθJA	391	°C/W
Thermal Resistance, Junction-to-Case	RθJC	136	°C/W

1. FR-4 = 30.0mm×25.0mm×1.6mm

5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

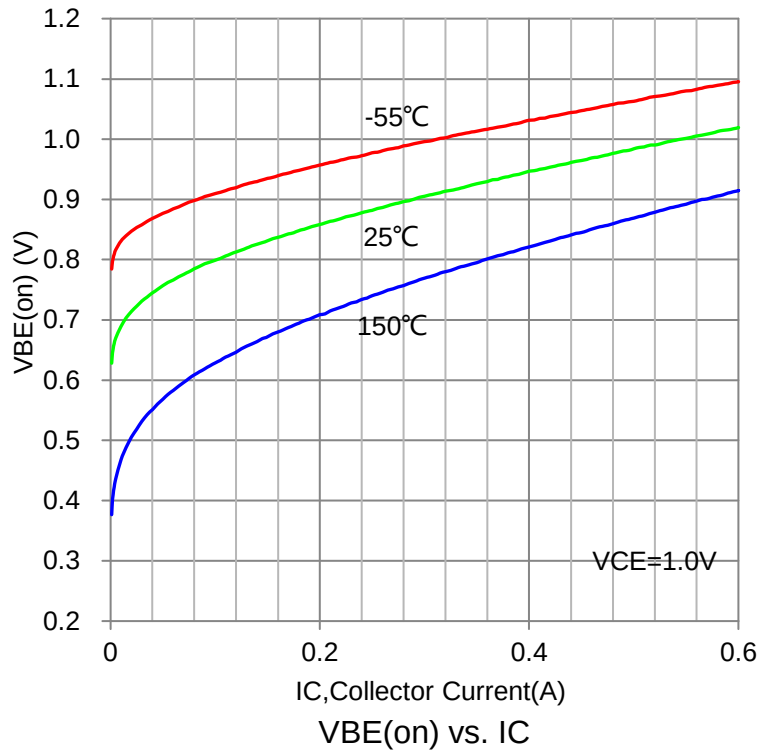
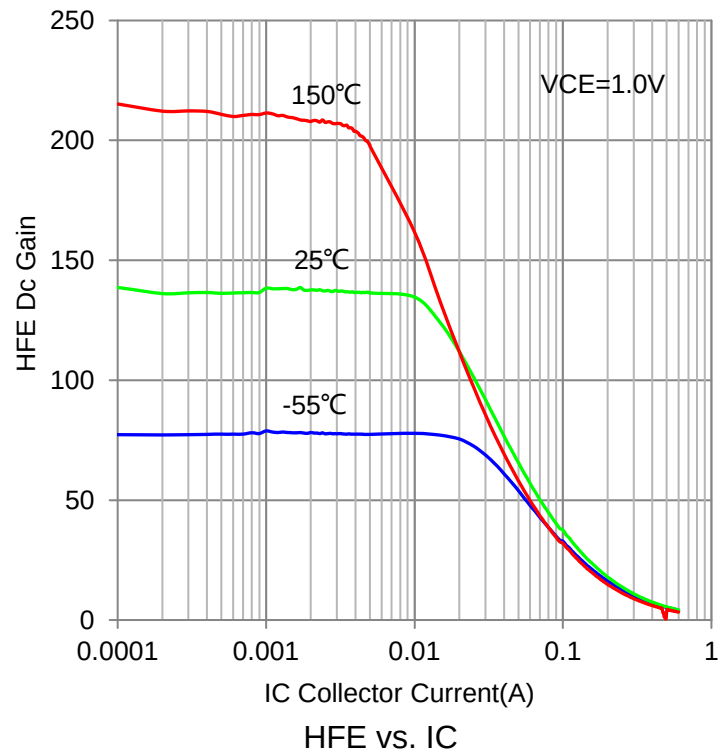
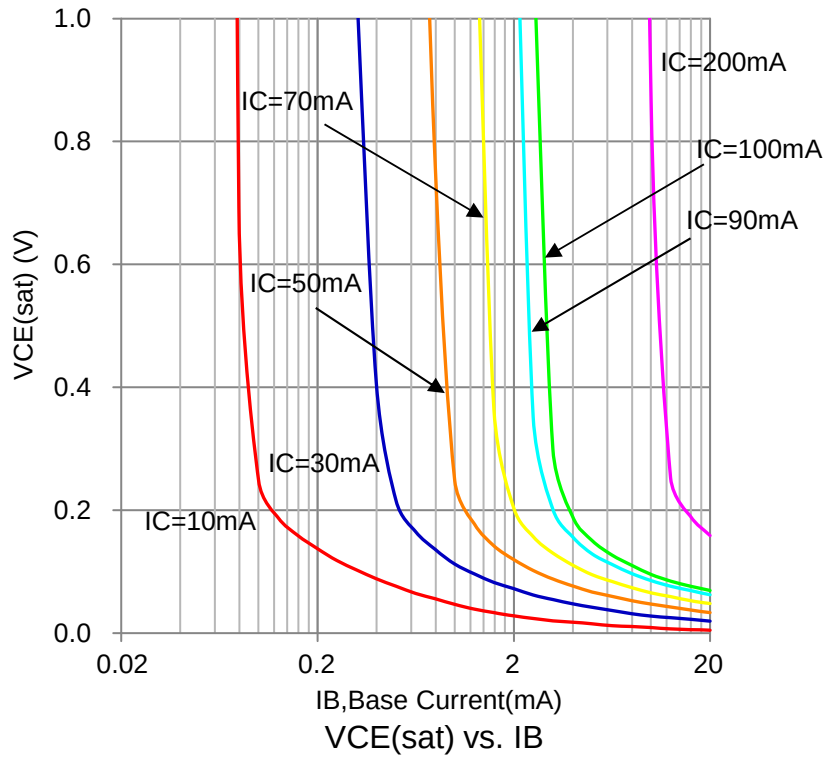
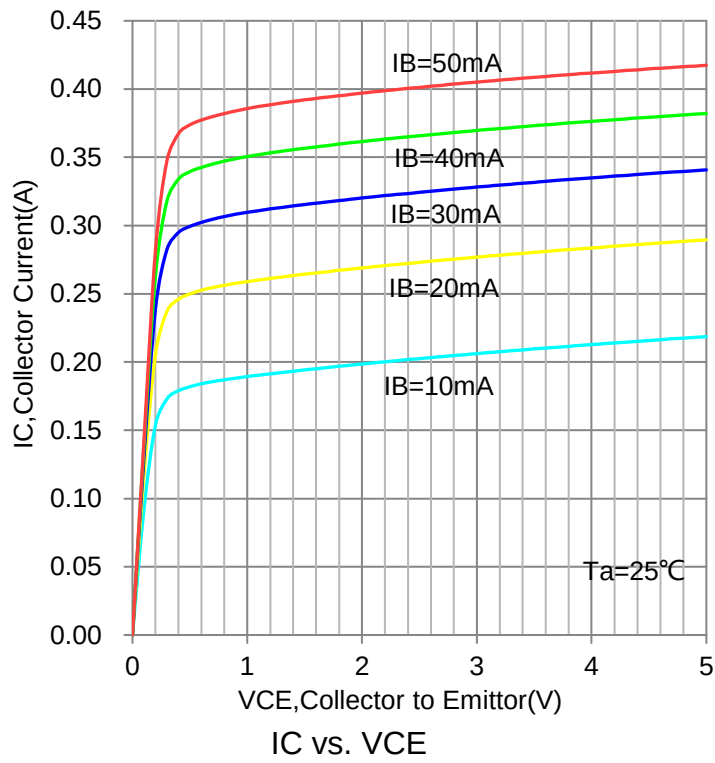
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector-Emitter Breakdown Voltage (IC = 1.0 mA, IB = 0)	V(BR)CEO	160	-	-	V
Collector-Base Breakdown voltage (IC = 100μA, IE = 0)	V(BR)CBO	180	-	-	V
Emitter-Base Breakdown Voltage (IE = 10 μA, IC = 0)	V(BR)EBO	6	-	-	V
Collector Cutoff Current (VCB = 120 V, IE = 0) (VCB = 120 V, IE = 0, TA = 100°C)	ICBO	-	-	50 50	nA μA
Emitter Cutoff Current (VEB = 4.0 V, IC = 0)	IEBO	-	-	50	nA
Collector-Emitter cutoff Current (VCE=110V, IB=0)	ICEO	-	-	10	μA

ON CHARACTERISTICS

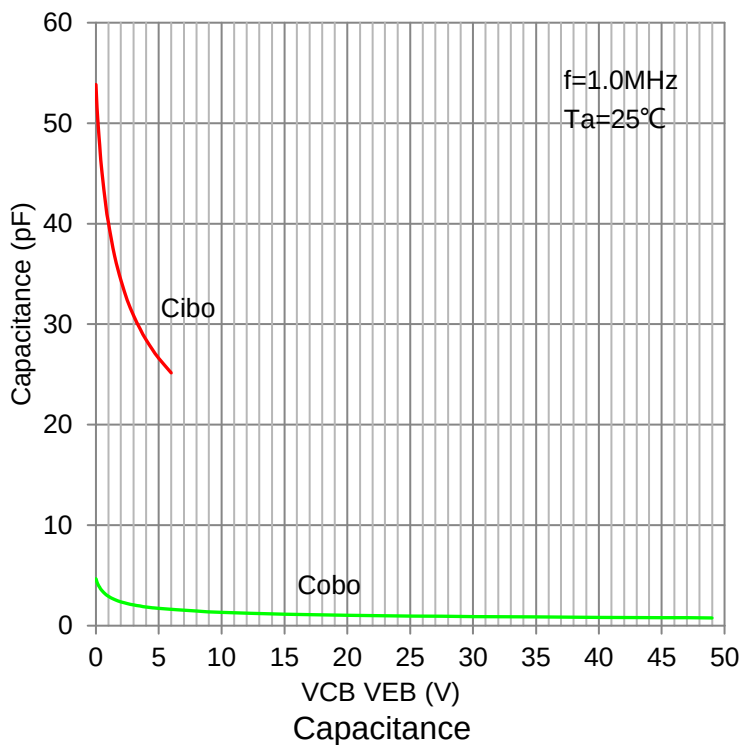
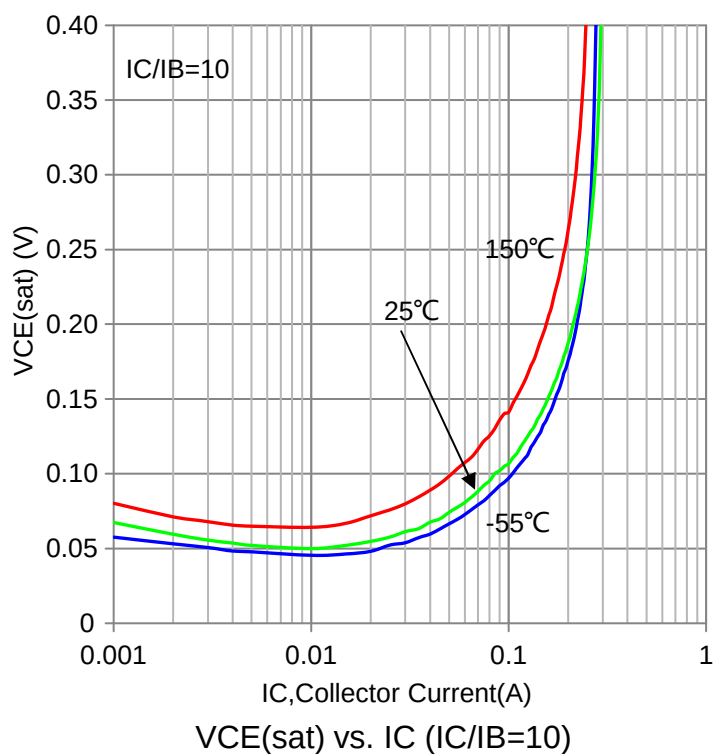
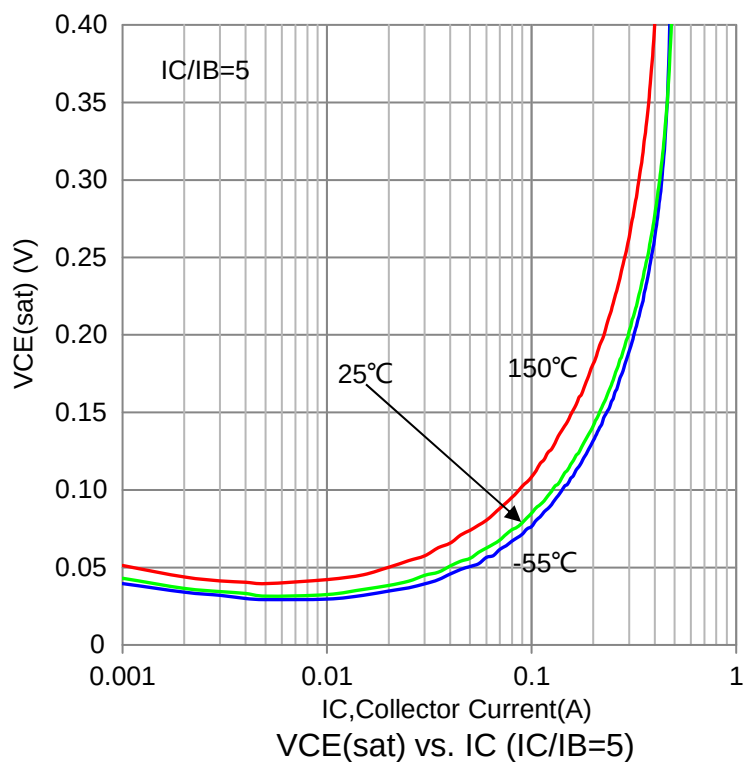
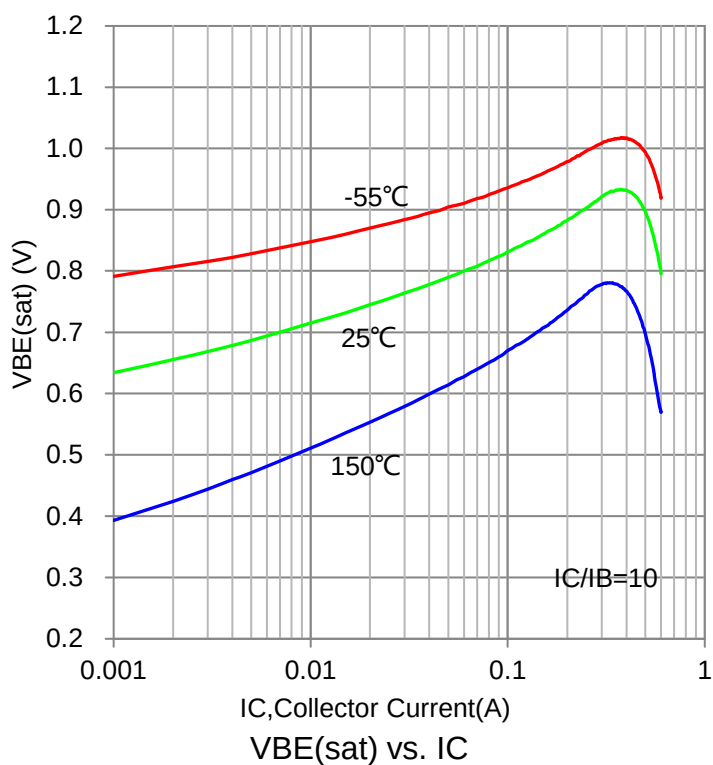
DC Current Gain (IC = 1.0 mA, VCE = 5.0 V) (IC = 10 mA, VCE = 5.0 V) (IC = 50 mA, VCE = 5.0 V)	HFE	80 80 30	- - -	- 250 -	
Collector-Emitter Saturation Voltage (IC = 10 mA, IB = 1.0 mA) (IC = 50 mA, IB = 5.0 mA)	VCE(S)	- -	- -	0.15 0.2	V
Base-Emitter Saturation Voltage (IC = 10 mA, IB = 1.0 mA) (IC =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

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

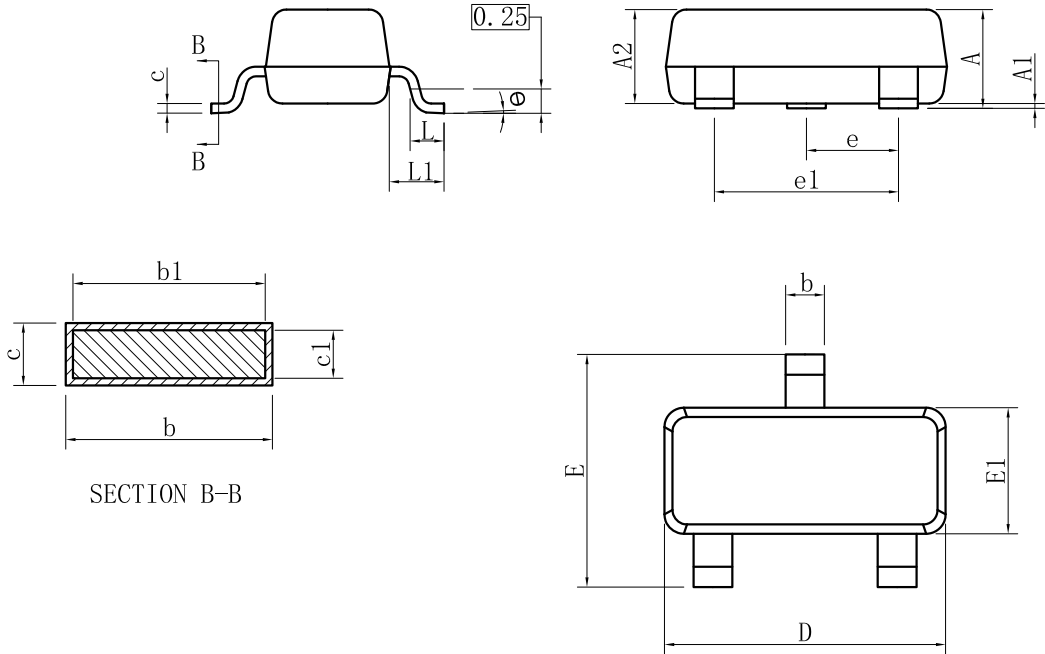
6.ELECTRICAL CHARACTERISTICS CURVES



6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7.OUTLINE AND DIMENSIONS

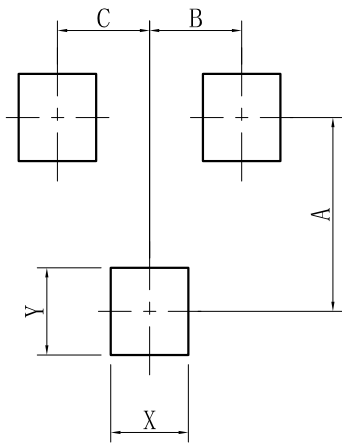


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

GENERAL NOTES

- 1.Top package surface finish Ra0.4±0.2um
- 2.Bottom package surface finish Ra0.7±0.2um
- 3.Side package surface finish Ra0.4±0.2um

8.SOLDERING FOOTPRINT



SOT-23	
DIM	(mm)
X	0.80
Y	0.90
A	2.00
B	0.95
C	0.95

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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