

LMBT4403WT1G

S-LMBT4403WT1G

General Purpose Transistors PNP Silicon

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
LMBT4403WT1G	2T	3000/Tape&Reel
LMBT4403WT3G	2T	13000/Tape&Reel

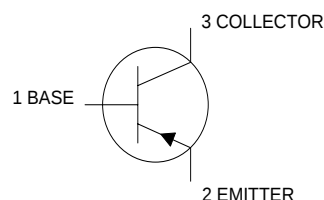
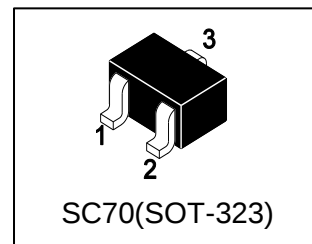
3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	V _{CEO}	-40	V
Collector–Base Voltage	V _{CBO}	-40	V
Emitter–Base Voltage	V _{EBO}	-5	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	150 1.2	mW mW/°C
Thermal Resistance, Junction–to–Ambient(Note 1)	R _{θJA}	833	°C/W
Junction and Storage temperature	T _J ,T _{stg}	-55~+150	°C

1. FR-5 = 1.0×0.75×0.062 in.



5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)
OFF CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -1.0 mA, IB = 0)	VBR(CEO)	-40	-	-	V
Collector–Base Breakdown Voltage (IC = -0.1 mA, IE = 0)	VBR(CBO)	-40	-	-	V
Emitter–Base Breakdown Voltage (IE = -0.1 mA, IC = 0)	VBR(EBO)	-5	-	-	V
Base Cutoff Current (VCE = -35 V, VEB = -0.4V)	IBEV	-	-	-0.1	μA
Collector Cutoff Current (VCE = -35 V, VEB = -0.4V)	ICEX	-	-	-0.1	μA

ON CHARACTERISTICS

DC Current Gain (IC = -0.1 mA, VCE = -1.0 V) (IC = -1.0 mA, VCE = -1.0 V) (IC = -10 mA, VCE = -1.0 V) (IC = -150 mA, VCE = -2.0 V) (IC = -500 mA, VCE = -2.0 V)	hFE	30 60 100 100 20	- - - - -	- - - 300 -	
Collector–Emitter Saturation Voltage (IC = -150 mA, IB = -15 mA) (IC = -500 mA, IB = -50 mA)	VCE(sat)	- -	- -	-0.4 -0.75	V
Base–Emitter Saturation Voltage (IC = -150 mA, IB = -15 mA) (IC = -500 mA, IB = -50 mA)	VBE(sat)	-0.75 -	- -	-0.95 -1.3	V

SMALL–SIGNAL CHARACTERISTICS

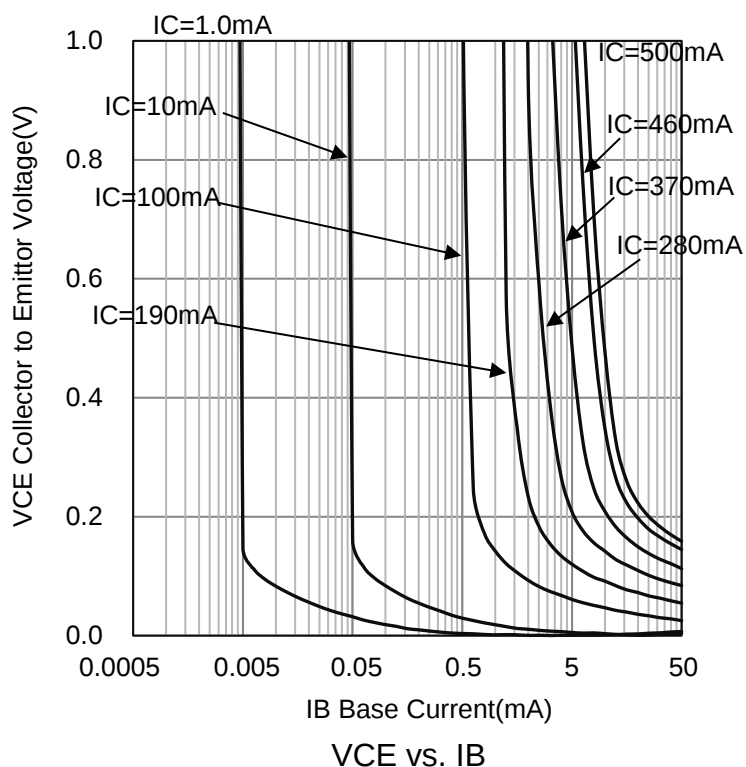
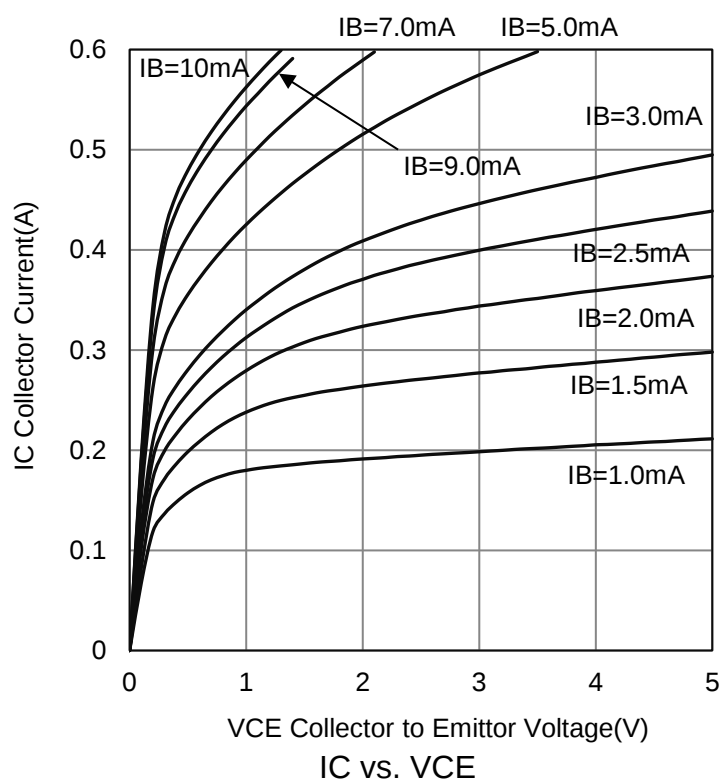
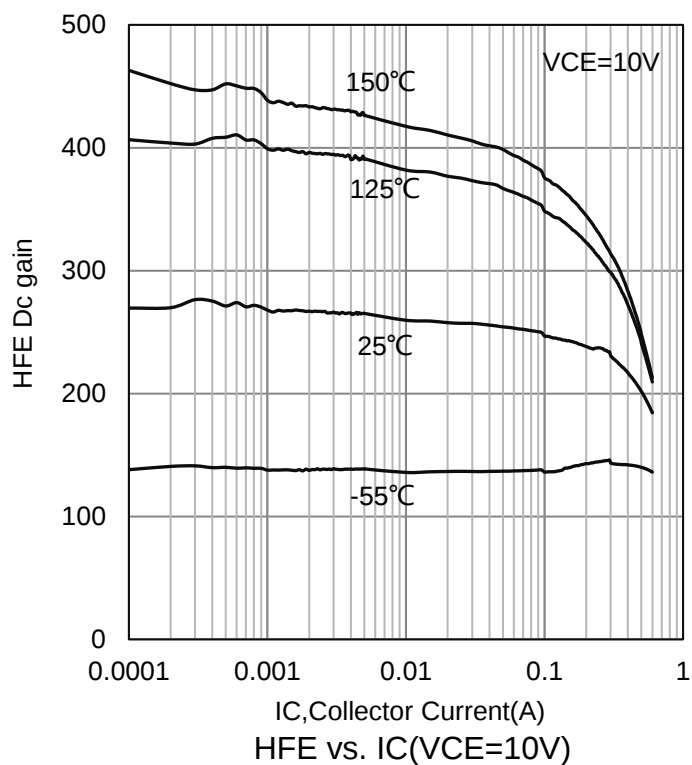
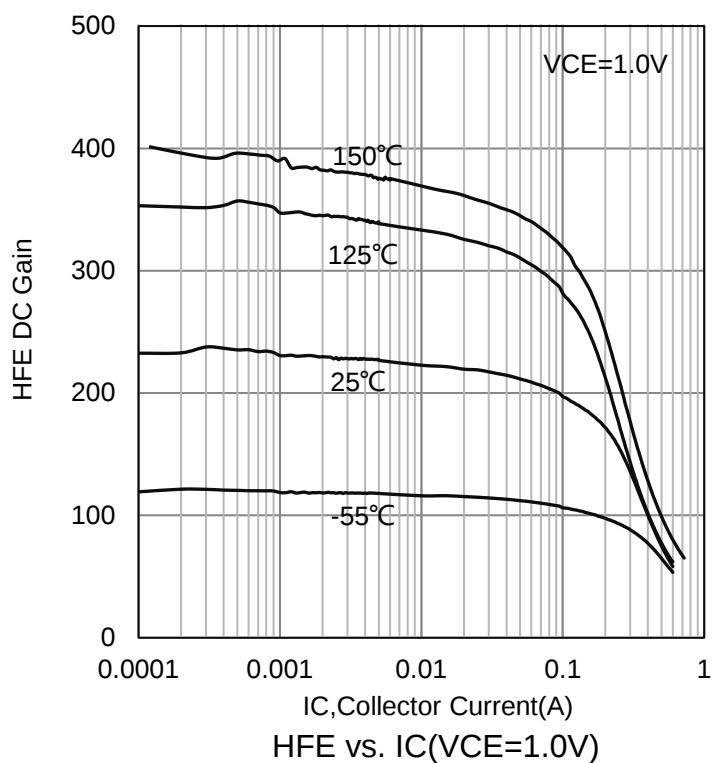
Current–Gain — Bandwidth Product (IC = -20mA, VCE = -10 V, f = 100 MHz)	fT	200	-	-	MHz
Collector–Base Capacitance (VCB = -10 V, IE = 0, f = 1.0 MHz)	Ccb	-	-	8.5	pF
Emitter–Base Capacitance (VBE = -0.5 V, IC = 0, f = 1.0 MHz)	Ceb	-	-	30	pF
Small–Signal Current Gain (VCE = -10 V, IC = -1.0 mA, f = 1.0 kHz)	hfe	60	-	500	-

SWITCHING CHARACTERISTICS

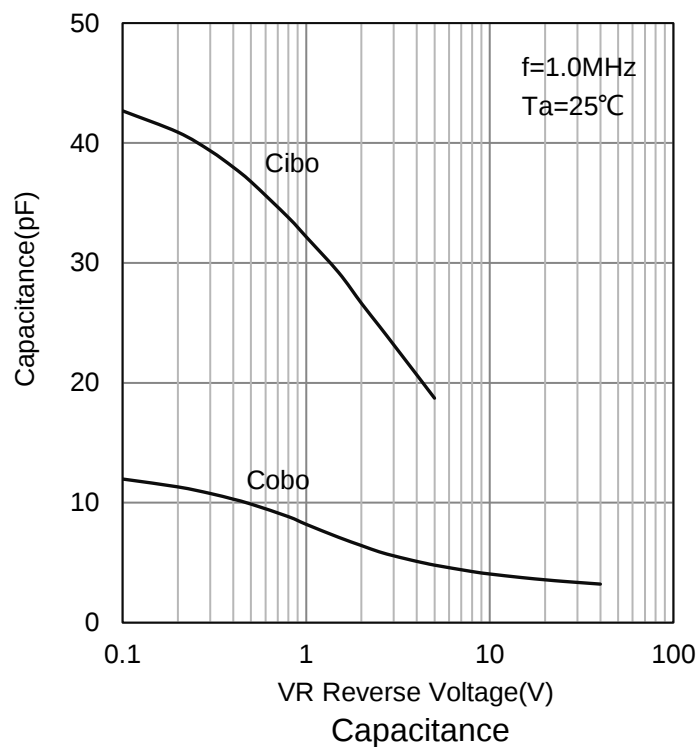
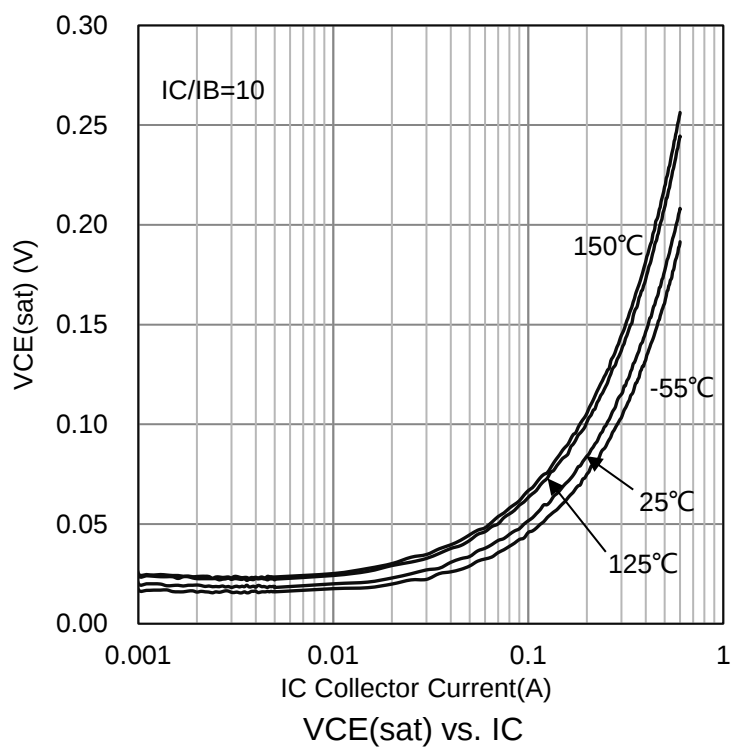
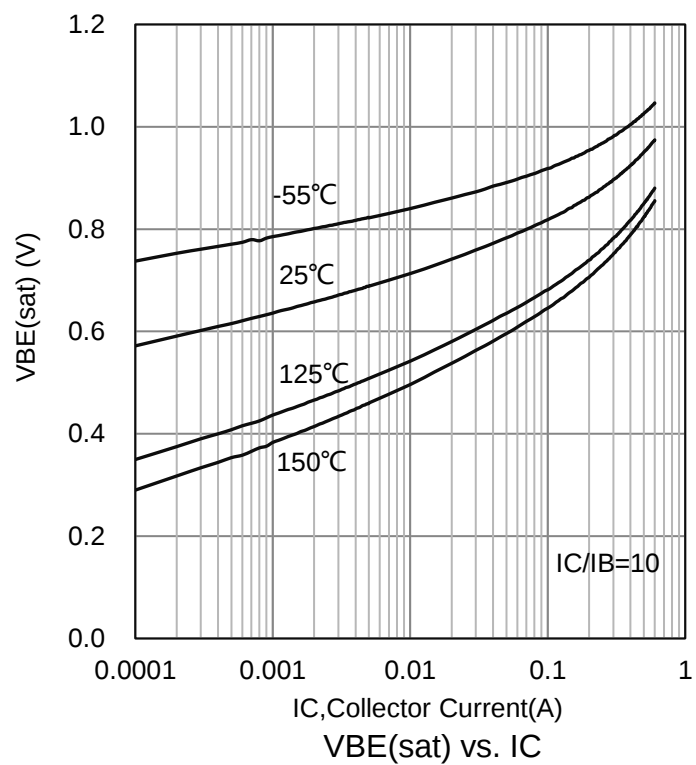
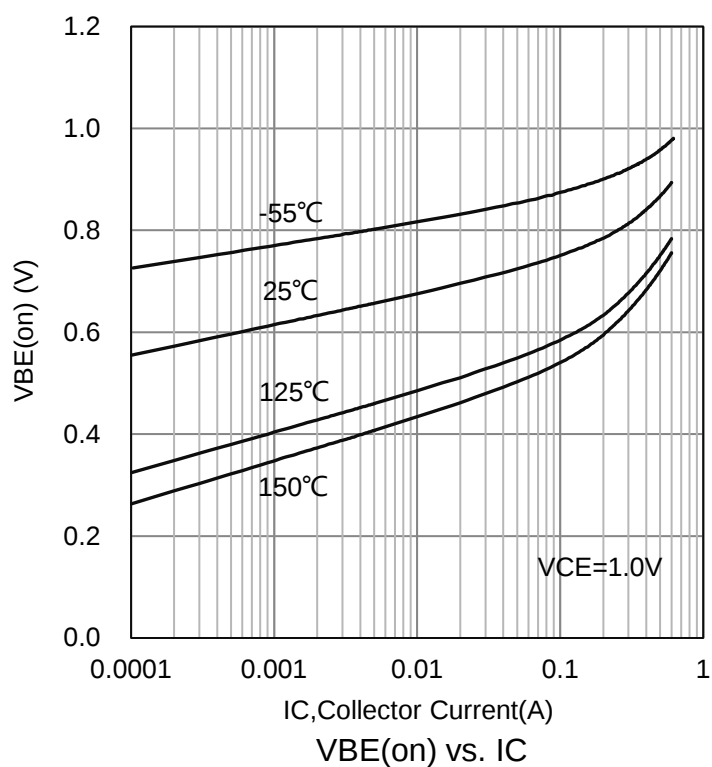
Delay Time	(VCC = -30V, VEB = -2.0V)	td	-	-	15	ns
Rise Time	(IC = -150mA, IB1 = -15mA)	tr	-	-	20	
Storage Time	(VCC = -30 V, IC = -150 mA, IB1 = IB2 = -15 mA)	ts	-	-	225	
Fall Time		tf	-	-	30	

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

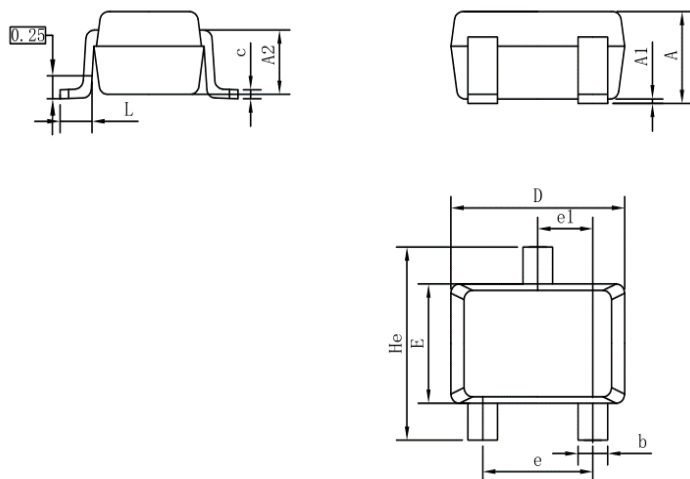
6.ELECTRICAL CHARACTERISTICS CURVES



6.ELECTRICAL CHARACTERISTICS CURVES(Con.)

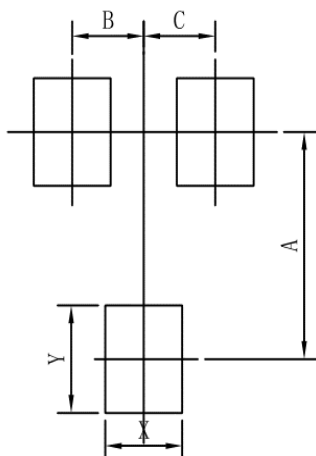


7.OUTLINE AND DIMENSIONS



SC70			
DIM	MIN	NOR	MAX
A	0.80	0.95	1.00
A1	0.00	0.05	0.10
A2	0.7 REF		
b	0.30	0.35	0.40
c	0.10	0.15	0.25
D	1.80	2.05	2.20
E	1.15	1.30	1.35
e	1.20	1.30	1.40
e1	0.65 BSC		
L	0.20	0.35	0.56
He	2.00	2.10	2.40
ALL Dimension in mm			

8.SOLDERING FOOTPRINT



SC70	
DIM	(mm)
A	1.90
B	0.65
C	0.65
X	0.70
Y	0.90

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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