

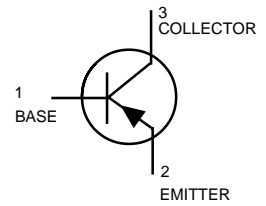
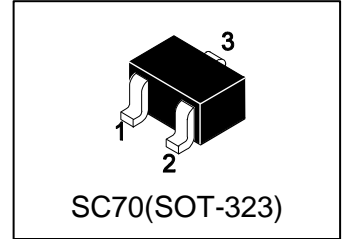
LMBT2907AWT1G

S-LMBT2907AWT1G

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
LMBT2907AWT1G	20	3000/Tape&Reel
LMBT2907AWT3G	20	10000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	V _{CEO}	-60	V
Collector–Base Voltage	V _{CBO}	-60	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, (Note 1) @ TA = 25°C	PD	225	mW
Thermal Resistance, Junction–to–Ambient(Note 1)	R _{θJA}	556	°C/W
Junction–to–Case(Note 1)	R _{θJC}	300	°C/W
Junction and Storage temperature	T _J ,T _{stg}	-55~+150	°C

1. 30.0mm×25.0mm×1.6mm(FR4)

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

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -10 mA, IB = 0)	VBR(CEO)	-60	-	-	V
Collector–Base Breakdown Voltage (IC = -10 μA, IE = 0)	VBR(CBO)	-60	-	-	V
Emitter–Base Breakdown Voltage (IE = -10 μA, IC = 0)	VBR(EBO)	-5	-	-	V
Collector Cutoff Current (VCE = -30 V, VEB(off) = -0.5V)	ICEX	-	-	-50	nA
Base Cutoff Current (VCE = -30 V, VEB(off) = -0.5V)	IBL	-	-	-50	nA

ON CHARACTERISTICS (Note 2.)

DC Current Gain (IC = -0.1 mA, VCE = -10 V)	HFE	75	-	-	
(IC = -1.0 mA, VCE = -10 V)		100	-	-	
(IC = -10 mA, VCE = -10 V)		100	-	-	
(IC = -150 mA, VCE = -10 V)		100	-	300	
(IC = -500 mA, VCE = -10 V)		50	-	-	
Collector–Emitter Saturation Voltage (IC = -150 mA, IB = -15 mA)	VCE(sat)	-	-	-0.4	V
(IC = -500 mA, IB = -50 mA)		-	-	-1.6	
Base–Emitter Saturation Voltage (IC = -150 mA, IB = -15 mA)	VBE(sat)	-	-	-1.3	V
(IC = -500 mA, IB = -50 mA)		-	-	-2.6	

SMALL–SIGNAL CHARACTERISTICS

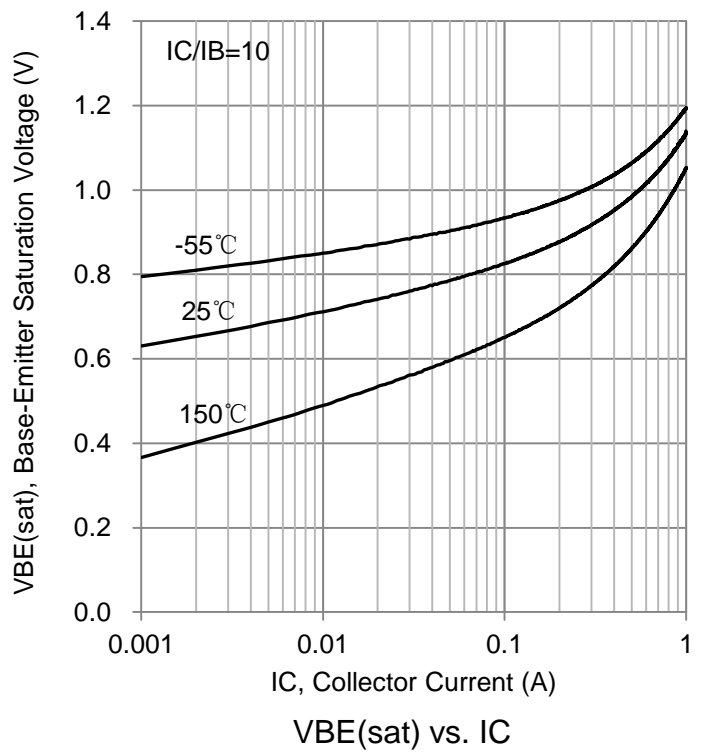
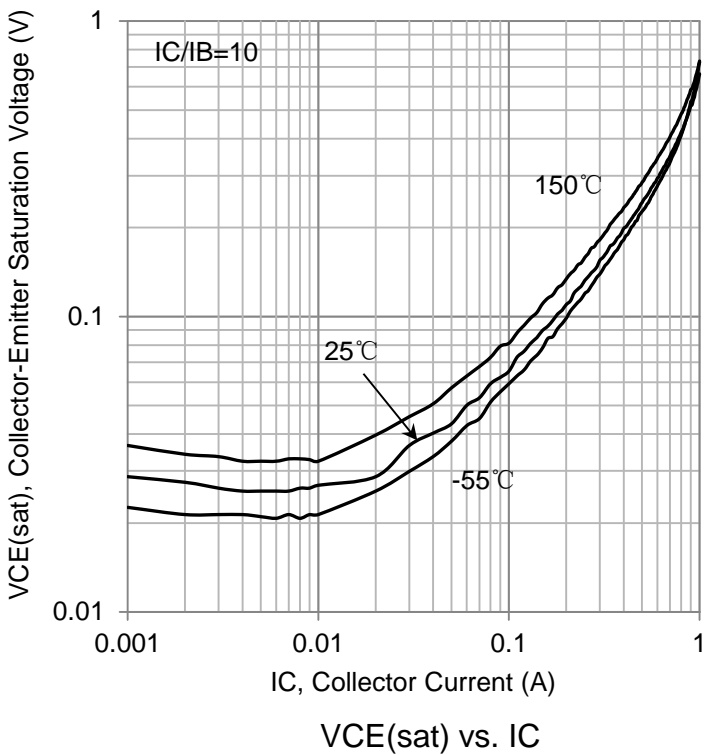
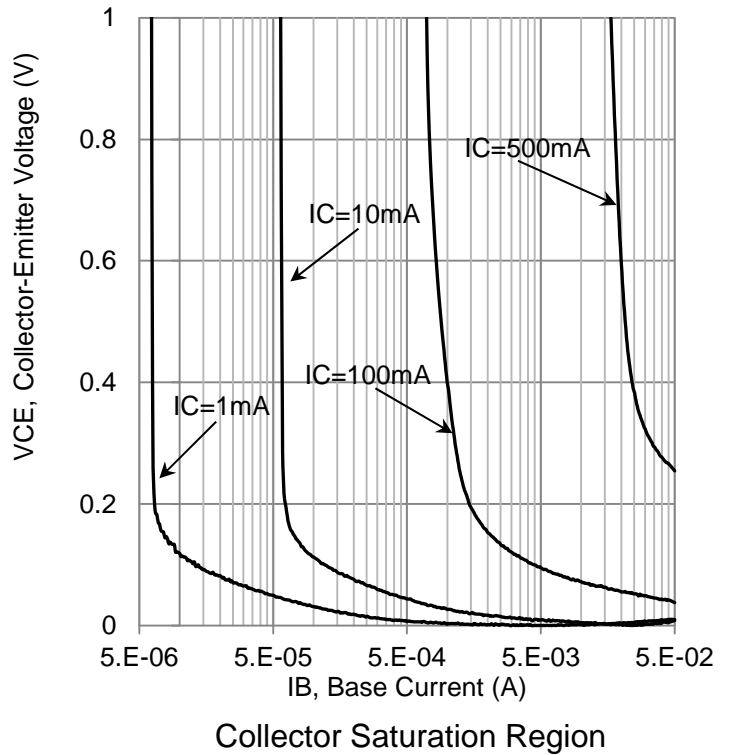
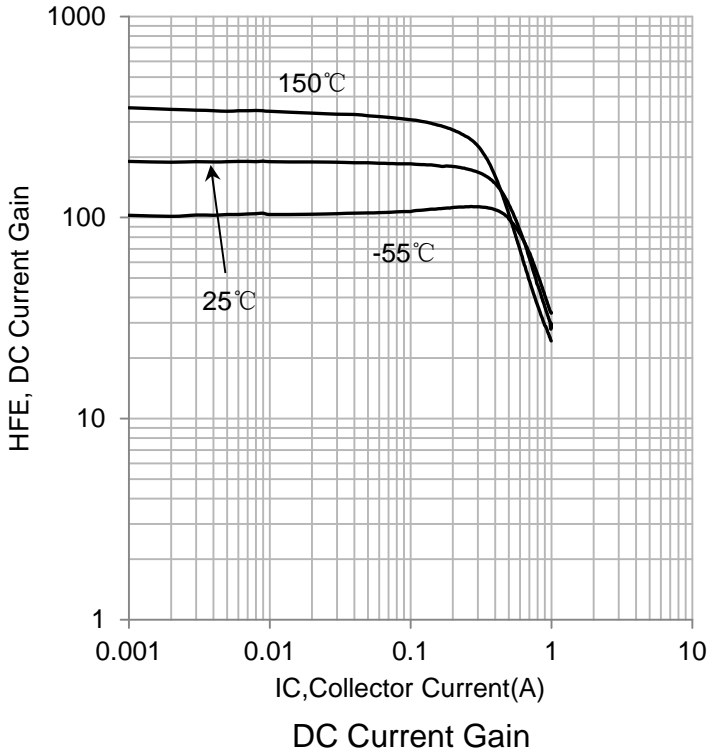
Current–Gain — Bandwidth Product (IC = -50mA, VCE= -20V, f = 100MHz)	fT	200	-	-	MHz
Output Capacitance (VCB = -10 V, IE = 0, f = 1.0 MHz)	Cobo	-	-	8	pF
Input Capacitance (VEB = -2 V, IC = 0, f = 1.0 MHz)	Cibo	-	-	30	pF

SWITCHING CHARACTERISTICS

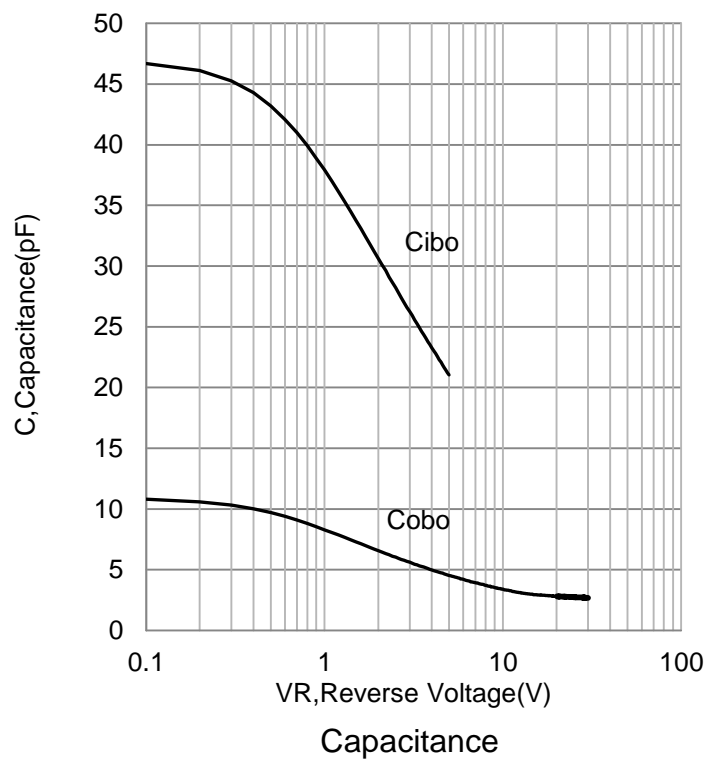
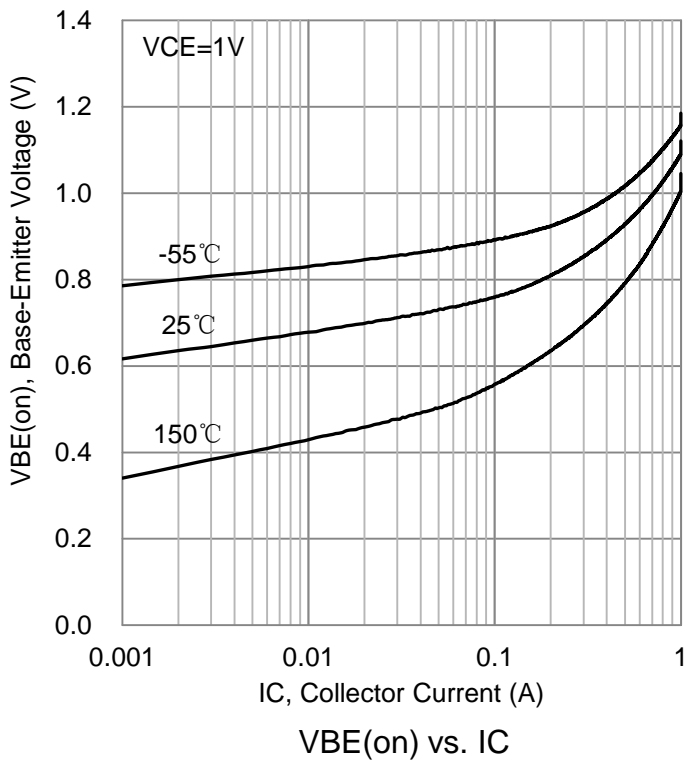
Turn–On Time	(VCC = -30 V, IC = -150 mA, IB1 = -15 mA)	ton	-	-	45	ns
Delay Time		td	-	-	10	
Rise Time		tr	-	-	40	
Storage Time	(VCC = -6 V, IC = -150 mA, IB1 = IB2 = -15 mA)	ts	-	-	225	
Fall Time		tf	-	-	60	
Turn–Off Time		toff	-	-	280	

 2.Pulse Test: Pulse Width $\leq 300 \mu\text{s}$, Duty Cycle $\leq 2.0\%$.

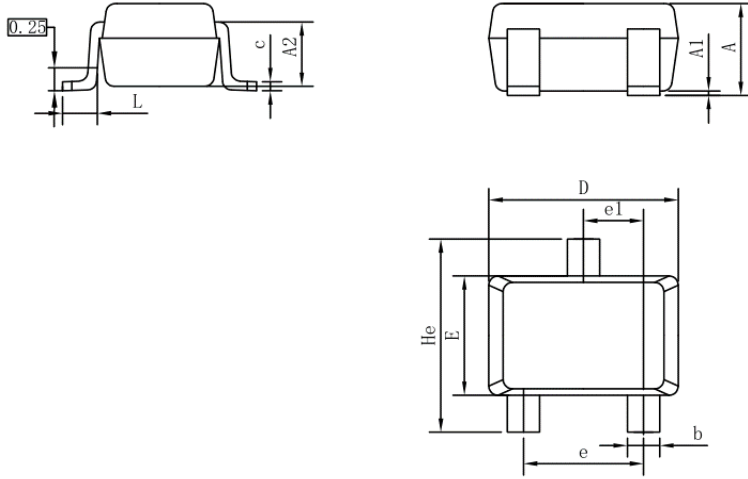
6. ELECTRICAL CHARACTERISTICS CURVES



6. ELECTRICAL CHARACTERISTICS CURVES(Con.)

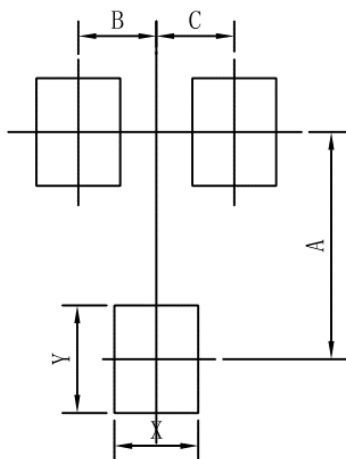


7. OUTLINE AND DIMENSIONS



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	MIN
A	1.90
B	0.65
C	0.65
X	0.70
Y	0.90

DISCLAIMER

- Before you use our Products, you are requested to carefully read this document and fully understand its contents. LRC shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any LRC's Products against warning, caution or note contained in this document.
- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products, please confirm the latest information with a LRC sales representative.