

LBC846BWT1G

S-LBC846BWT1G

General Purpose Transistors NPN 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

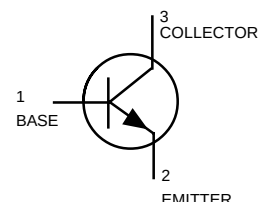
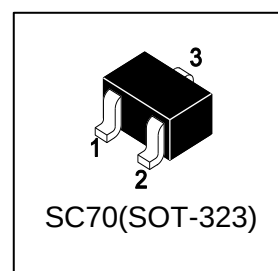
Device	Marking	Shipping
LBC846BWT1G	1B	3000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	65	V
Collector–Base Voltage	VCBO	80	V
Emitter–Base Voltage	VEBO	6	V
Collector Current — Continuous	IC	100	mA

4. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation,	PD	150	mW
Thermal Resistance, Junction–to–Ambient	RθJA	833	°C/W
Junction and Storage temperature	TJ,Tstg	–55~+150	°C



5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

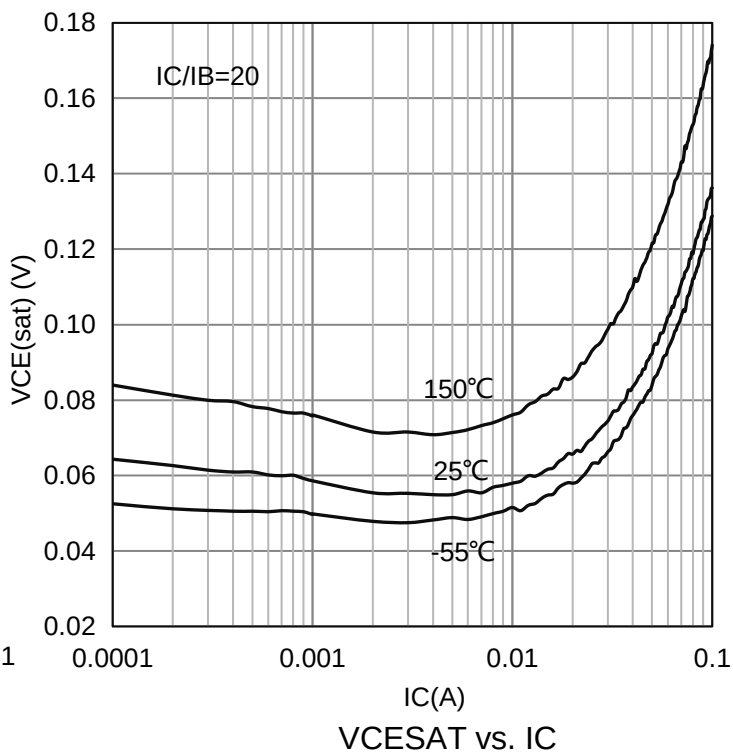
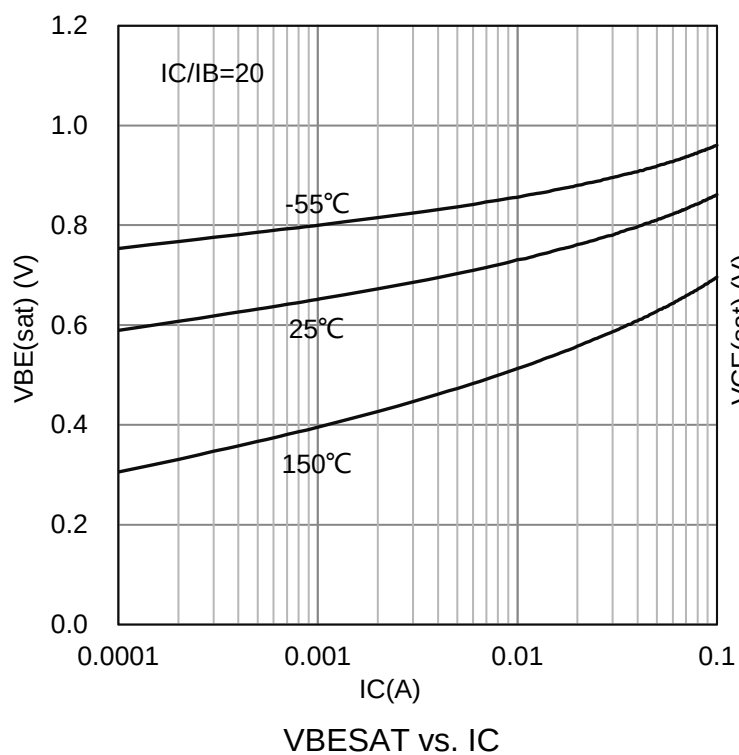
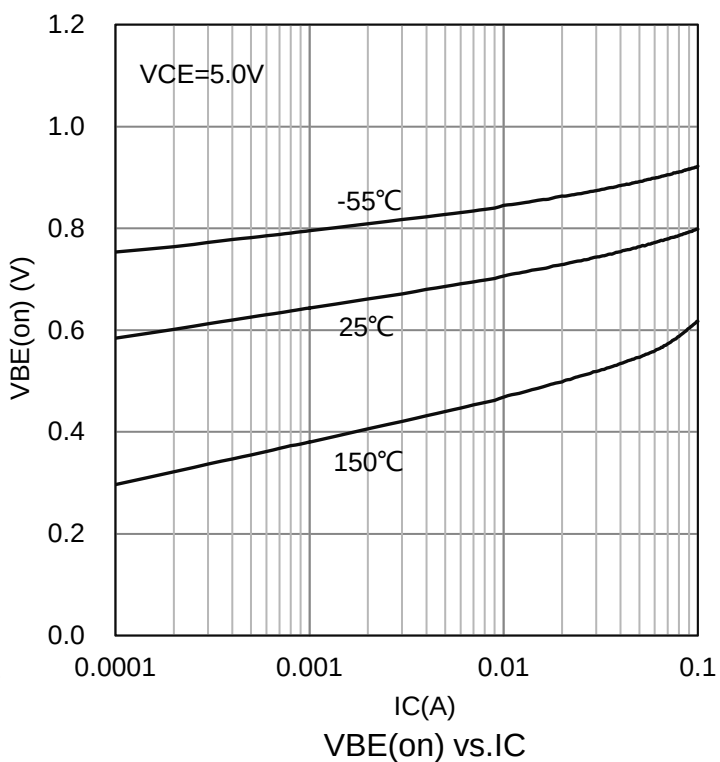
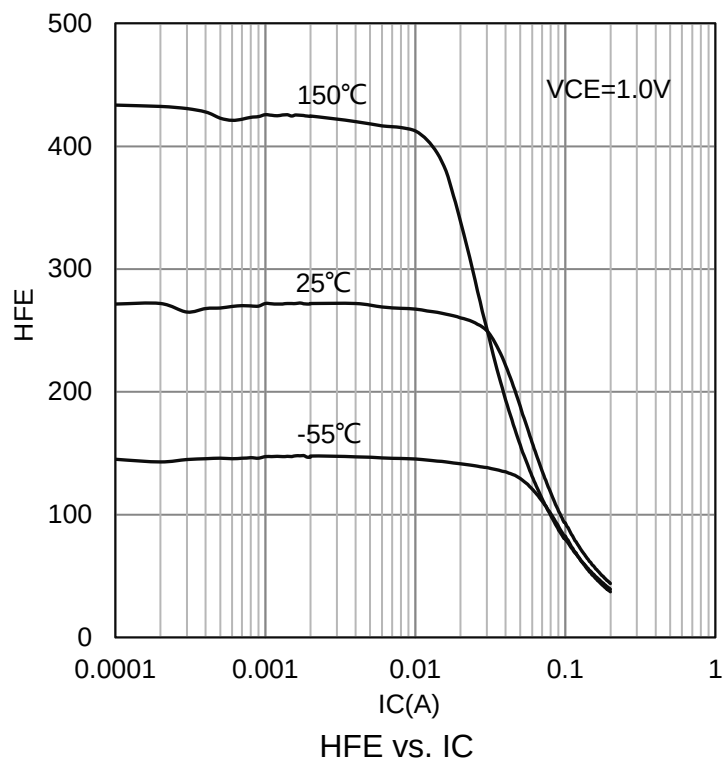
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = 10 mA, IB = 0)	VBR(CEO)	65	-	-	V
Collector–Emitter Breakdown Voltage (IC = 10 μ A, VEB = 0)	VBR(CES)	80	-	-	V
Collector–Base Breakdown Voltage (IC = 10 μ A, IE= 0)	VBR(CBO)	80	-	-	V
Emitter–Base Breakdown Voltage (IE = 1.0 μ A, IC = 0)	VBR(EBO)	6	-	-	V
Collector Cutoff Current (VCB = 30 V) (VCB = 30 V, TA = 150°C)	ICBO	-	-	15 5	nA μ A
Collector-Emitter cutoff Current (VCE=65V, IB=0)	ICEO	-	-	10	μ A
Emitter-Base cut-off current (VBE =6V,IC =0)	IEBO	-	-	100	nA

ON CHARACTERISTICS

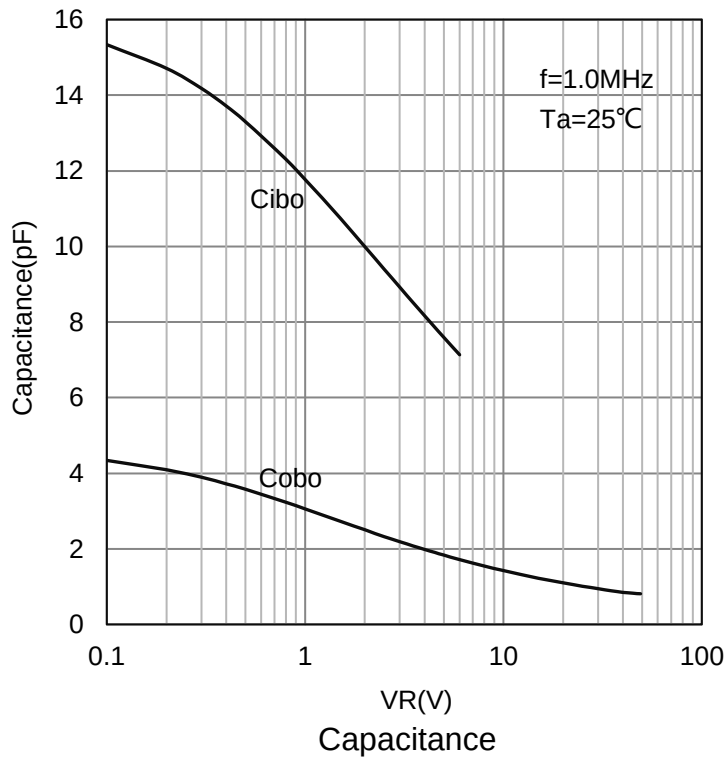
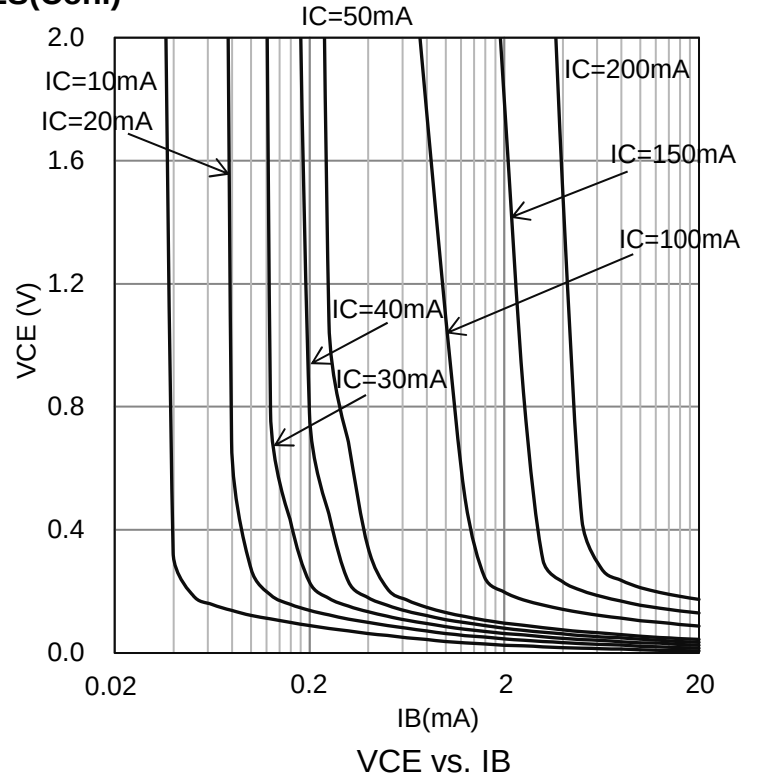
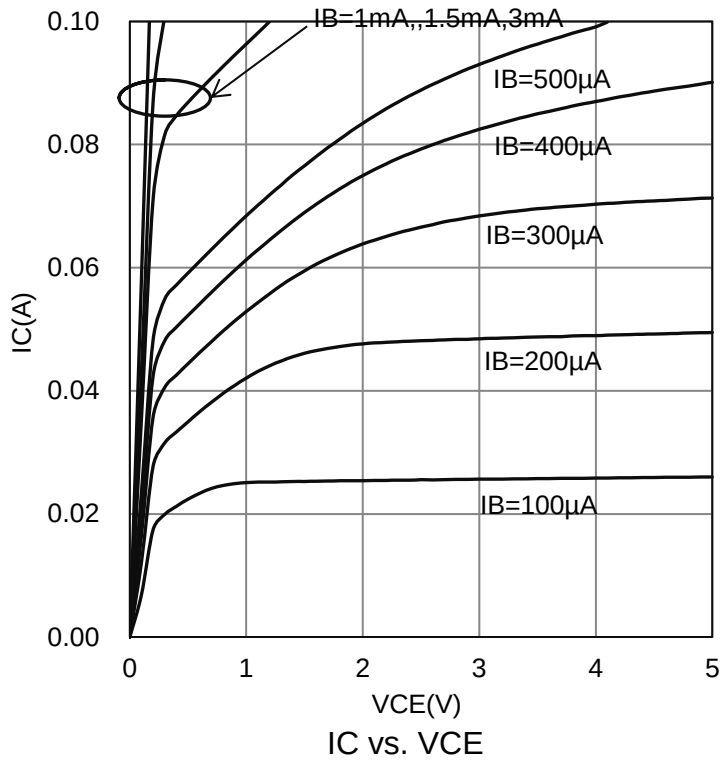
DC Current Gain (IC = 2.0 mA, VCE = 5.0 V)	HFE	200	290	450	
Collector–Emitter Saturation Voltage (IC = 10 mA, IB = 0.5 mA) (IC = 100 mA, IB = 5.0 mA)	VCE(sat)	- -	- -	0.25 0.6	V
Base–Emitter Saturation Voltage (IC = 10 mA, IB = 0.5 mA) (IC = 100 mA, IB = 5.0 mA)	VBE(sat)	- -	0.7 0.9	- -	V
Base–Emitter turn on Voltage (IC = 2.0 mA, VCE = 5.0 V) (IC = 10 mA, VCE = 5.0 V)	VBE(on)	580 -	660 -	700 770	mV

SMALL–SIGNAL CHARACTERISTICS

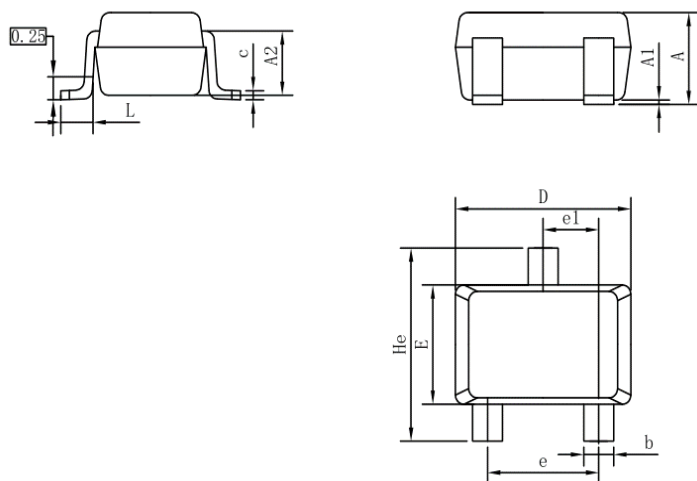
Current–Gain — Bandwidth Product (IC = 10 mA, VCE = 5.0 V, f = 100 MHz)	fT	100	-	-	MHz
Output Capacitance (VCB = 10 V, f = 1.0 MHz)	Cobo	-	-	4.5	pF
Noise Figure (IC = 0.2 mA,VCE = 5.0 V, RS = 2.0 k Ω f = 1.0 kHz, BW = 200 Hz)	NF	-	-	10	dB

6.ELECTRICAL CHARACTERISTICS CURVES


6.ELECTRICAL CHARACTERISTICS CURVES(Con.)

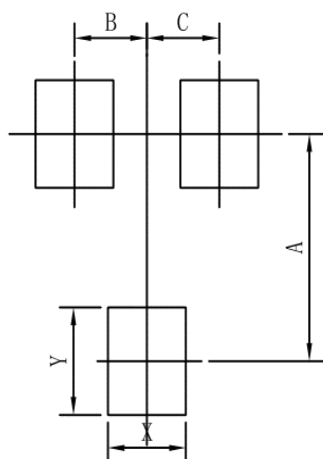


7.OUTLINE AND DIMENSIONS



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

- 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.
- Before you use our Products for new Project, 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.