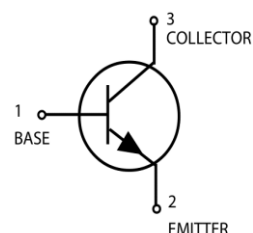
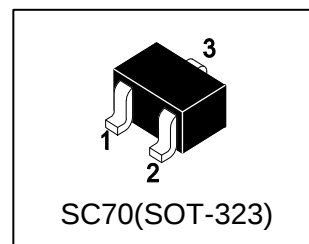


S-LBC817-40WT1G

NPN Silicon General Purpose 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-LBC817-40WT1G	YM	3000/Tape&Reel
S-LBC817-40WT3G	YM	13000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	V _{CEO}	45	V
Collector–Base Voltage	V _{CBO}	50	V
Emitter–Base Voltage	V _{EB0}	5	V
Collector Current(Continuous)	I _C	500	mA
Junction Temperature	T _J	-55~+150	°C
Storage Temperature	T _{stg}	-55~+150	°C

4. THERMAL CHARACTERISTICS

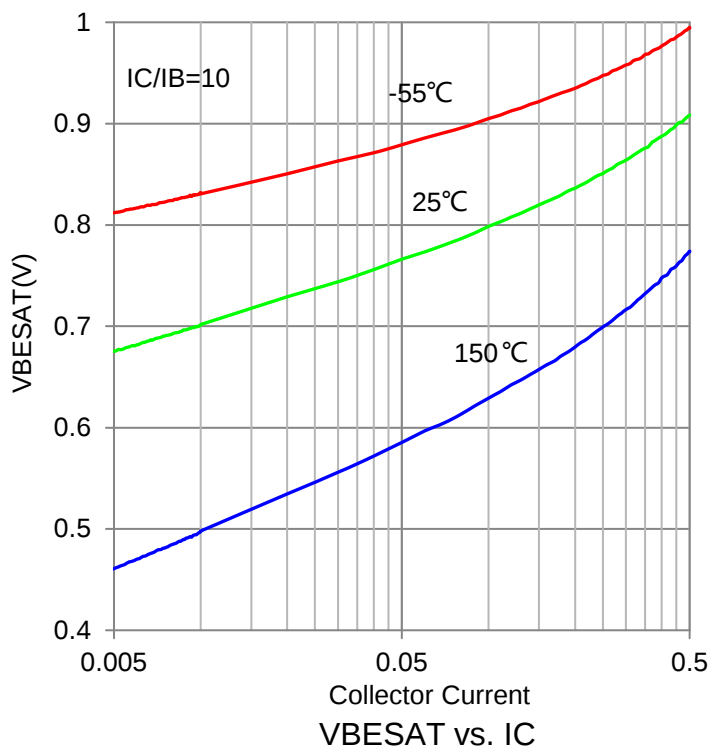
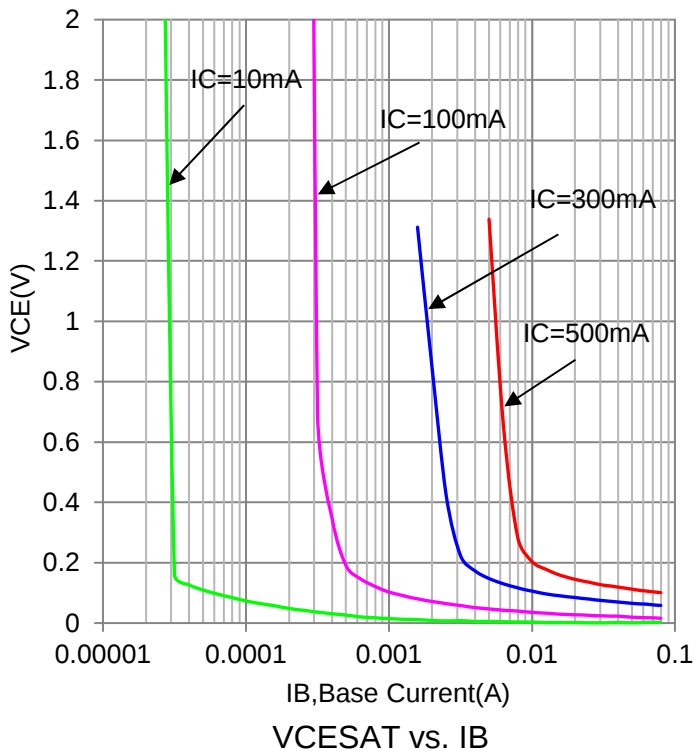
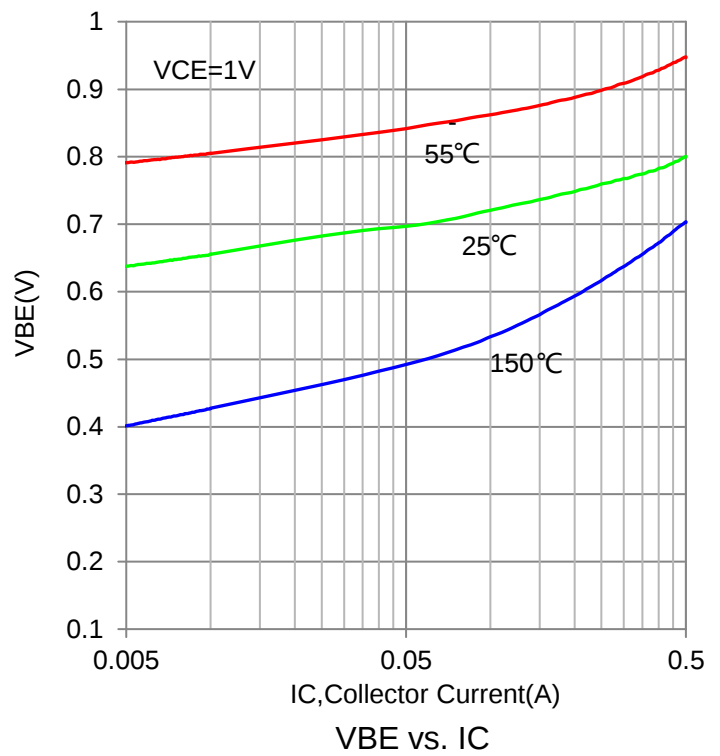
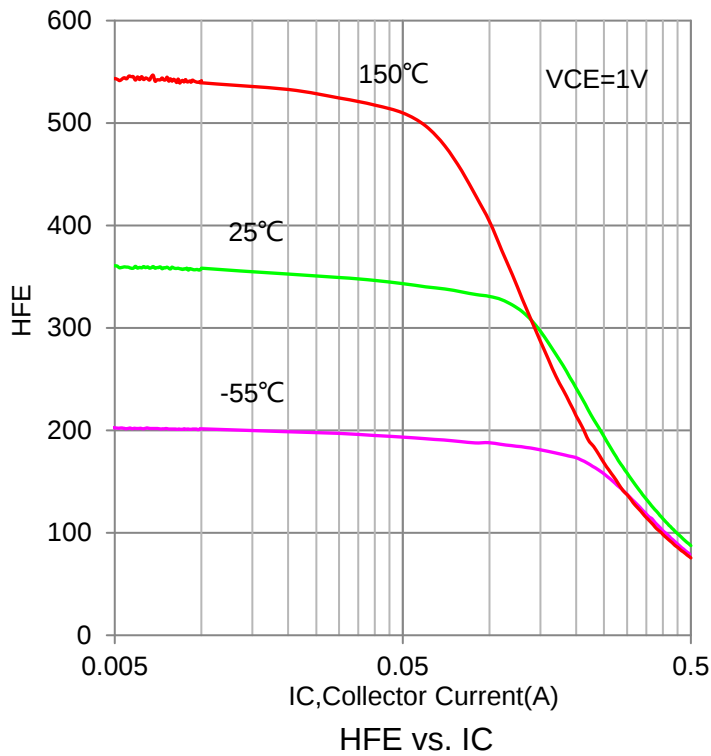
Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-4 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	300 2.4	mW mW/°C
Thermal Resistance, Junction–to–Ambient(Note 1)	R _{θJA}	417	°C/W

1. 30.0mm×25.0mm×1.6mm(FR4), Copper foil thickness 35μm;

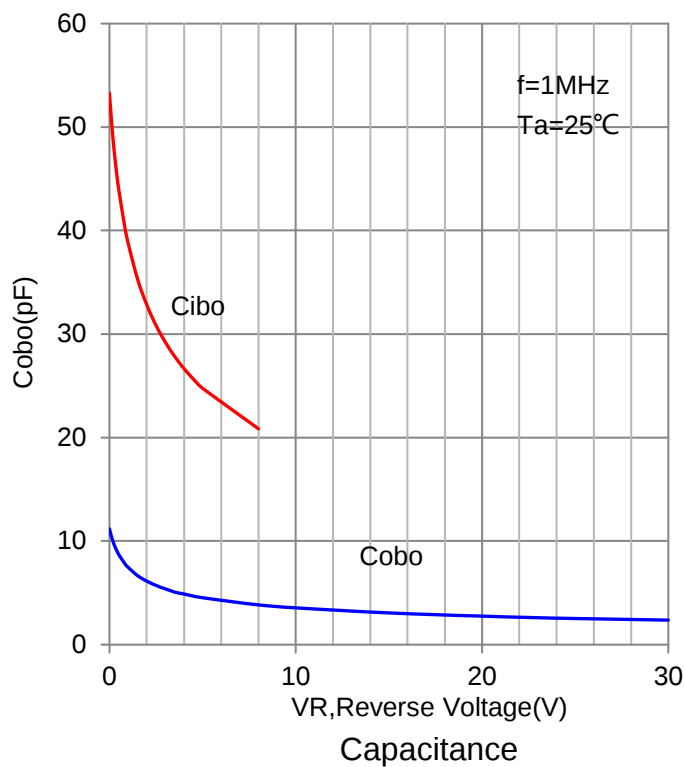
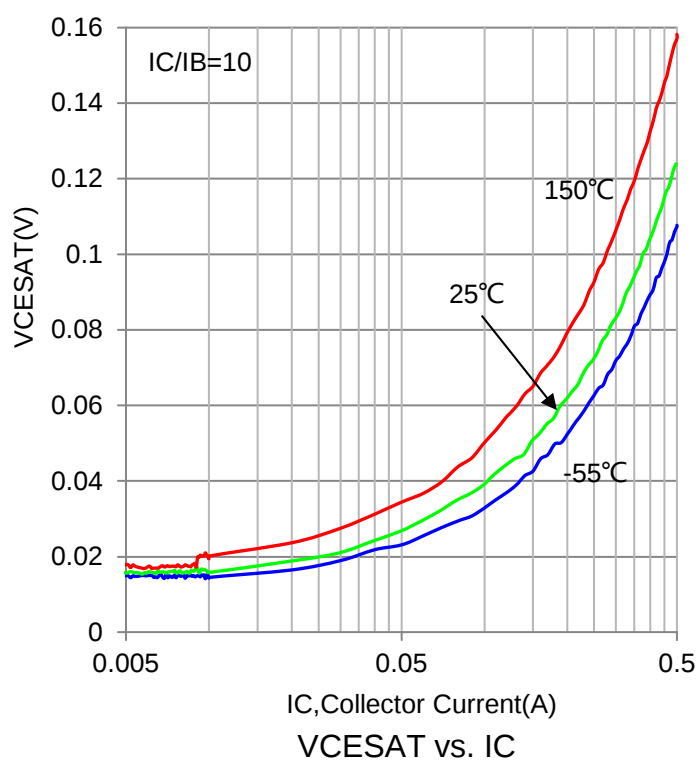
5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
OFF CHARACTERISTICS					
Collector–Emitter Breakdown Voltage (IC = 10 mA)	V(BR)CEO	45	-	-	V
Collector–Emitter Breakdown Voltage (IC = 10 μA, VEB = 0)	V(BR)CES	50	-	-	V
Emitter–Base Breakdown Voltage (IE = 1.0 μA)	V(BR)EBO	5	-	-	V
Collector Cutoff Current (VCB = 20 V) (VCB = 20 V, TA = 150°C)	ICBO	- -	- -	100 5	nA μA
ON CHARACTERISTICS					
DC Current Gain (IC = 100 mA, VCE = 1.0 V) (IC = 500 mA, VCE = 1.0 V)	hFE	250 40	- -	600 -	
Collector–Emitter Saturation Voltage (IC = 500 mA, IB = 50 mA)	VCE(sat)	-	-	0.7	V
Base–Emitter Voltage (IC = 500 mA, VCE = 1.0 V)	VBE(on)	-	-	1.2	V
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	-	10	-	pF

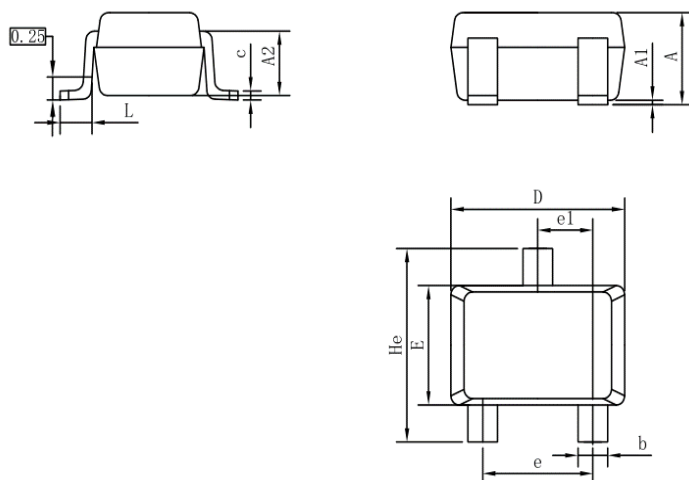
6.ELECTRICAL CHARACTERISTICS CURVES



6.ELECTRICAL CHARACTERISTICS CURVES(Con.)

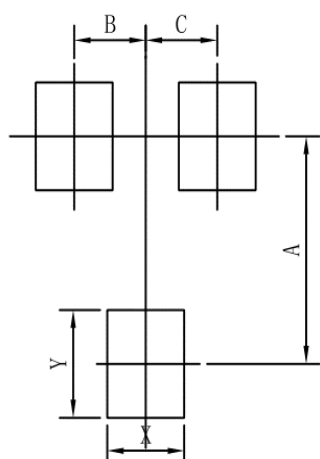


7.OUTLINE AND DIMENSIONS



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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