

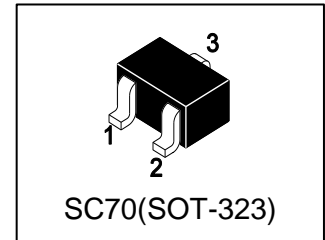
LBC817-25WT1G

S-LBC817-25WT1G

General Purpose Transistors NPN Silicon

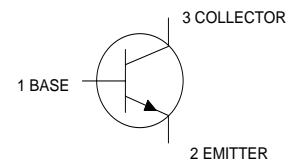
1. FEATURES

- 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
LBC817-25WT1G	6B	3000/Tape&Reel
LBC817-25WT3G	6B	10000/Tape&Reel



3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	V _{CEO}	45	V _{dc}
Collector–Base Voltage	V _{CBO}	50	V _{dc}
Emitter–Base Voltage	V _{EBO}	5	V _{dc}
Collector Current — Continuous	I _C	500	mAdc

4. THERMAL CHARACTERISTICS

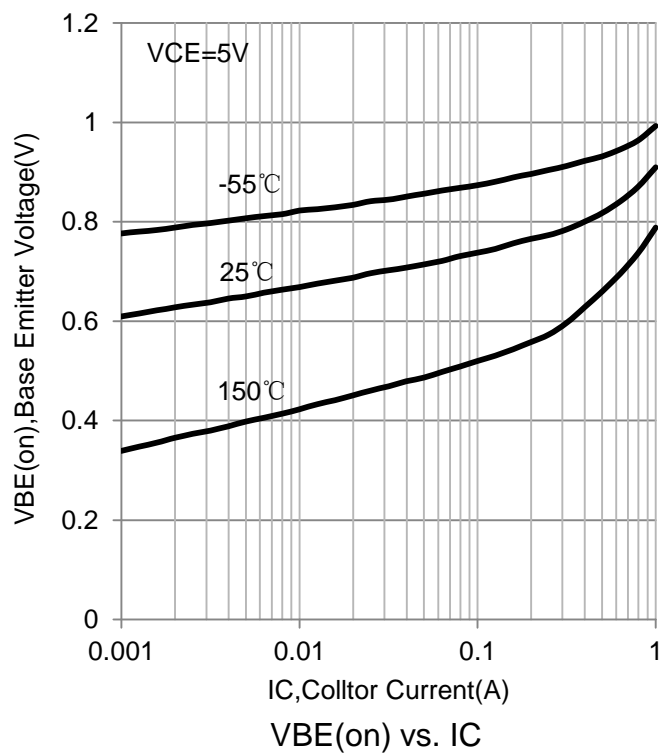
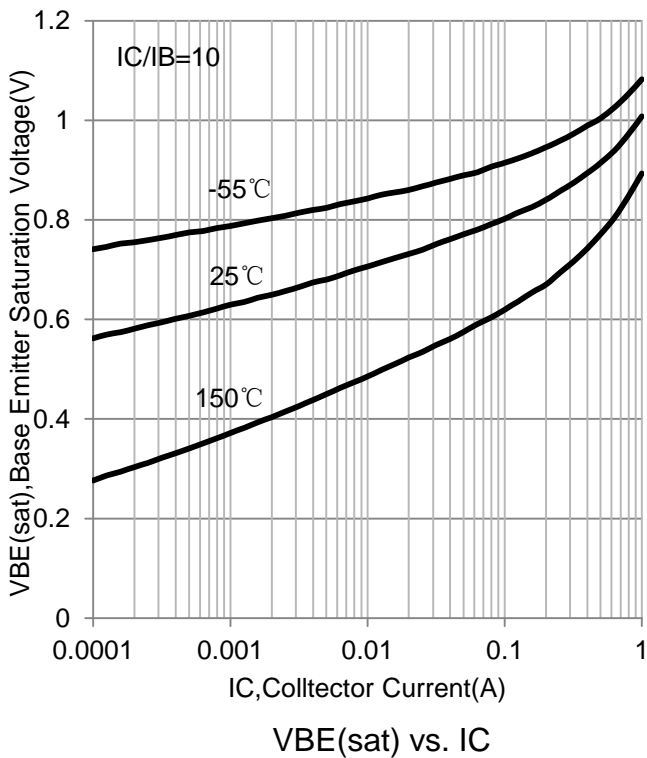
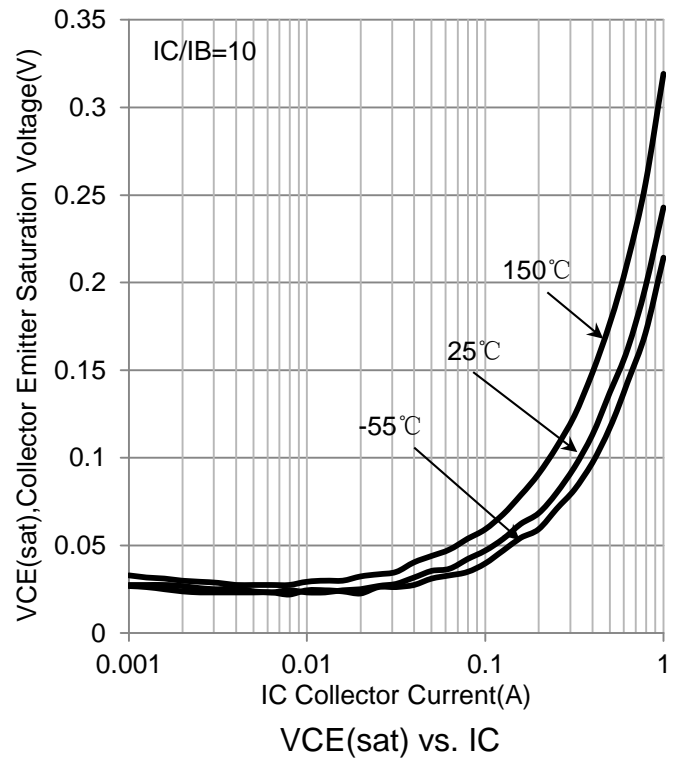
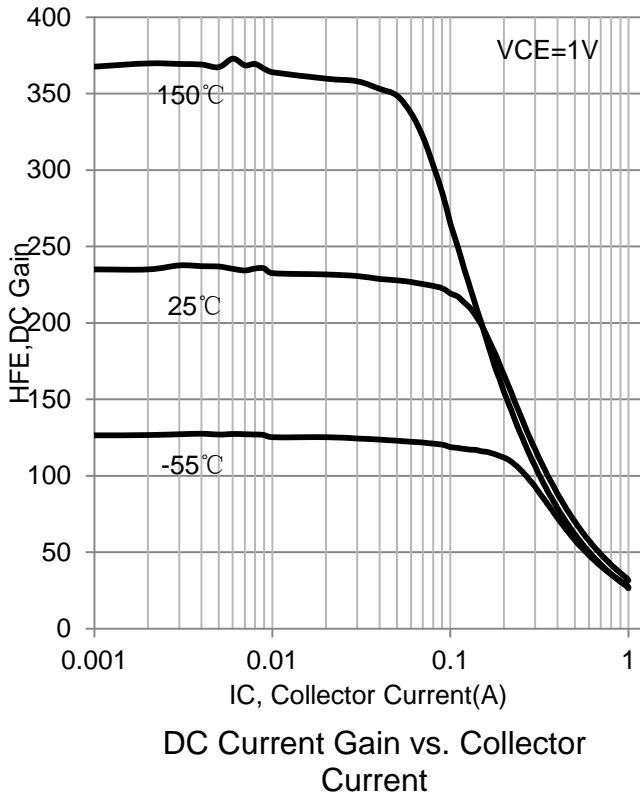
Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR-5 Board (Note 1) @ TA = 25°C Derate above 25°C	PD	150 1.2	mW mW/°C
Thermal Resistance, Junction–to–Ambient(Note 1)	R _{θJA}	833	°C/W
Junction and Storage temperature	T _J , T _{stg}	-55~+150	°C

1. FR-5 = 1.0×0.75×0.062 in.

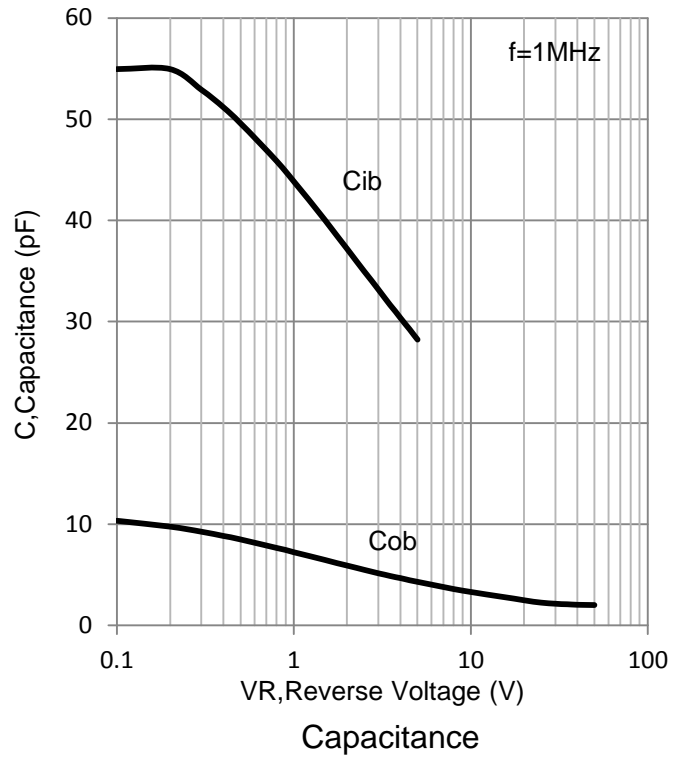
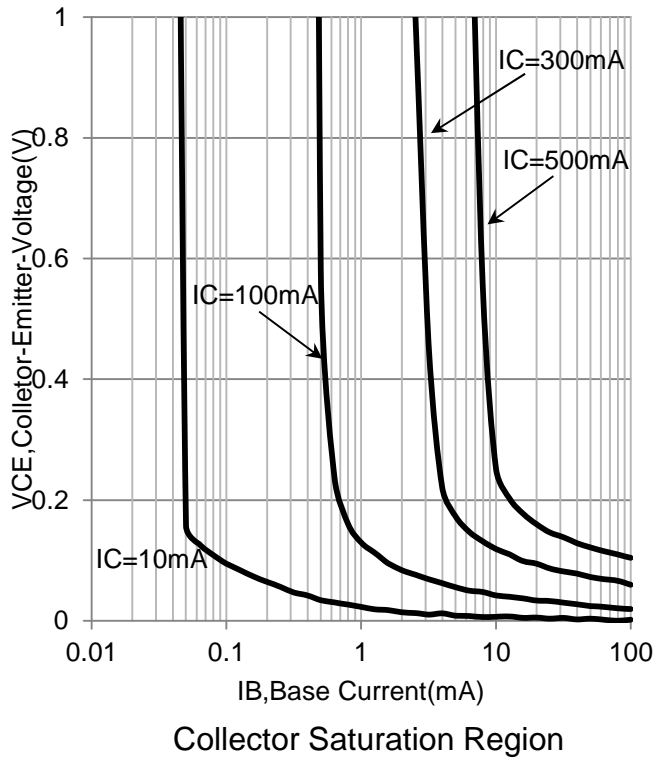
5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = 10 mAdc, IB = 0)	VBR(CEO)	45	-	-	V
Collector–Base Breakdown Voltage (IC = 10 µAdc, IE = 0)	VBR(CBO)	50	-	-	V
Emitter–Base Breakdown Voltage (IE = 1.0 µAdc, IC = 0)	VBR(EBO)	5	-	-	V
Collector Cutoff Current (VCB = 20 Vdc) (VCB = 20 Vdc, TA=150°C)	ICBO	-	-	100 5	nA µA
DC Current Gain (IC = 100 mAdc, VCE = 1.0 Vdc)	HFE	160	-	400	
Collector–Emitter Saturation Voltage (IC = 500 mAdc, IB = 50 mAdc)	VCE(sat)	-	-	0.7	V
Base–Emitter Saturation Voltage (IC = 500 mAdc, VCE = 1.0 Vdc)	VBE(sat)	-	-	1.2	V
Current–Gain — Bandwidth Product (IC = 10mAdc, VCE= 5Vdc, f = 100MHz)	fT	100	-	-	MHz
Output Capacitance (VCB = 10 Vdc, IE = 0, f = 1.0 MHz)	Cob	-	10	-	pF

6. ELECTRICAL CHARACTERISTICS CURVE



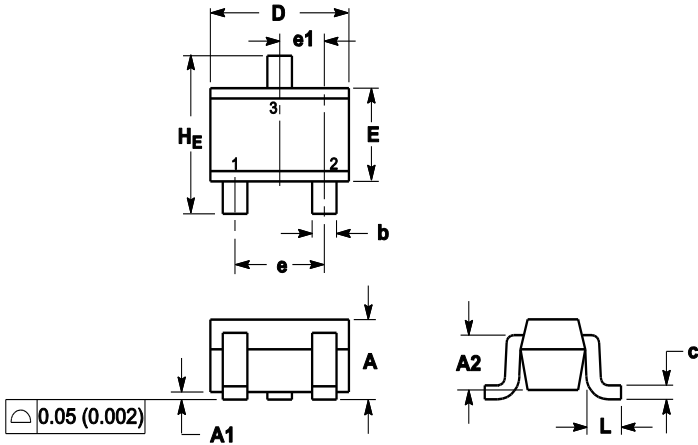
6. ELECTRICAL CHARACTERISTICS CURVES(Con.)



7.OUTLINE AND DIMENSIONS

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.032	0.035	0.039
A1	0.00	0.05	0.10	0.000	0.002	0.004
A2	0.70REF			0.028REF		
b	0.30	0.35	0.40	0.012	0.014	0.016
c	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.10	2.20	0.071	0.083	0.087
E	1.15	1.24	1.35	0.045	0.049	0.053
e	1.20	1.30	1.40	0.047	0.051	0.055
e1	0.65REF			0.026REF		
L	0.20	0.38	0.56	0.008	0.015	0.022
HE	2.00	2.10	2.40	0.079	0.083	0.095

8.SOLDERING FOOTPRINT

