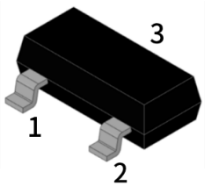
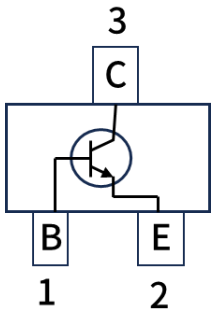
BC847A/B/CLST1

General Purpose Transistors NPN Silicon



SOT23 (TO-236)

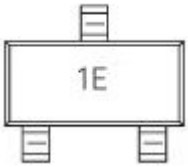
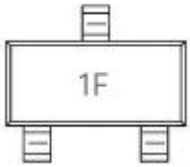
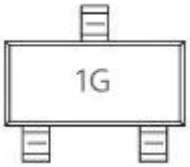


1. FEATURES

- The material of product compliance with RoHS requirements and Halogen Free.
- High Stability and High Reliability.

2. Mechanical Data

- SOT-23 Small Outline Plastic Package.
- Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Marking:

BC847A	BC847B	BC847C
		

3. ORDERING INFORMATION

Device	Min Pack	Inner Box	Outer Carton	Reel
BC847A/B/CLST1	3000	45000	180000	7 inch

4. MAXIMUM RATINGS (Ta = 25°C)

Parameter	Symbol	Limit	Unit
Collector-Emitter Voltage	VCEO	45	V
Collector-Base Voltage	VCBO	50	V
Emitter-Base Voltage	VEBO	6	V
Collector Current--Continuous	Ic	100	mA
Collector power dissipation	PC	200	mW

5. THERMAL CHARACTERISTICS

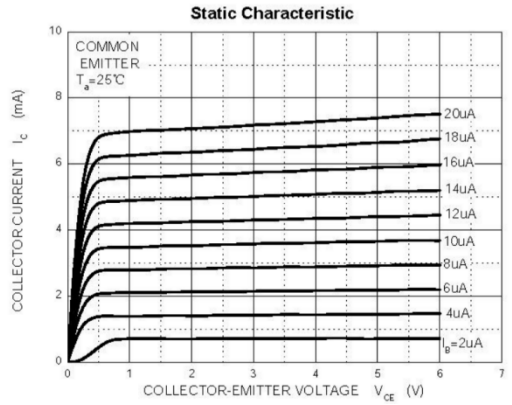
Parameter	Symbol	Limit	Unit
Thermal Resistance Junction to Ambient	RΘJA	625	°C/W

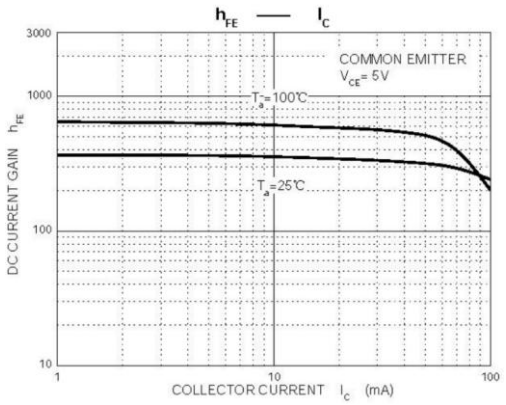
Junction and Storage temperature	TJ,Tstg	−55~+150	℃

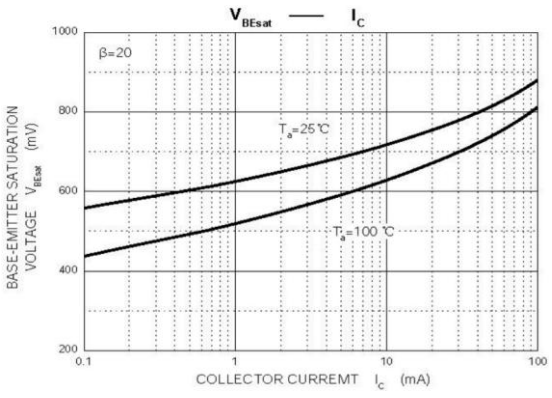
6. ELECTRICAL CHARACTERISTICS (Ta= 25ºC unless otherwise specified)

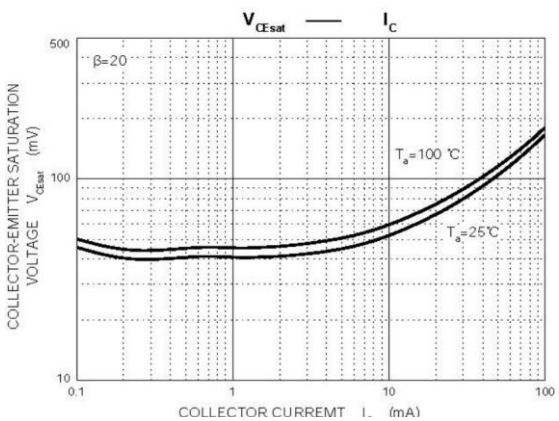
Parameter		Symbol	Condition	Min	TYP	Max	Unit
Collector–Emitter Breakdown Voltage		V(BR)CEO	IC = 10μA, IB = 0	45			V
Collector–Base Breakdown Voltage		V(BR)CBO	IC = 10 μA, IE = 0	50			V
Emitter–Base Breakdown Voltage		V(BR)EBO	IE = 10 μA, IC = 0	6			V
Collector–Emitter Breakdown Voltag		V(BR)CES	IC = 10 μA, VEB = 0	50			V
Collector Cutoff Current		ICBO	VCB= 50 V, IE=0			0.1	μA
Emitter cut-off current		IEBO	VEB= 5V, IC=0			0.1	μA
DC current gain	847A	hFE	IC = 2 mA, VCE = 5 V	110		220	
	847B			200		450	
	847C			420		800	
Collector-Emitter Saturation voltage		VCE(sat)	VCB = 50V, IE = 0A			0.5	V
Collector-emitter saturation voltage		VBE(sat)	IC = 10 mA, IB = 0.5 mA			1.1	V
Transition frequency		fT	IC = 10mA, VCE= 5V, f = 100MHz	100			MHz
Output Capacitance		Cob	VCB = 10 V, f = 1.0 MHz			4.5	PF

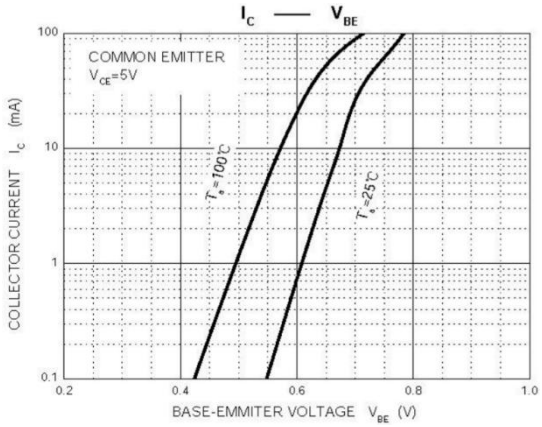
7. ELECTRICAL CHARACTERISTICS CURVES

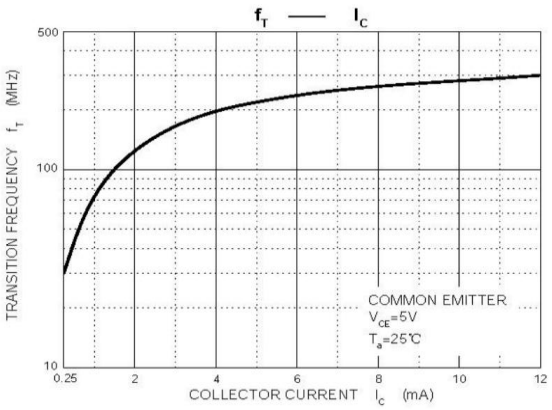


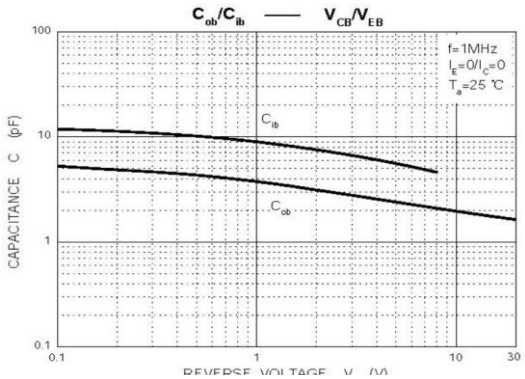


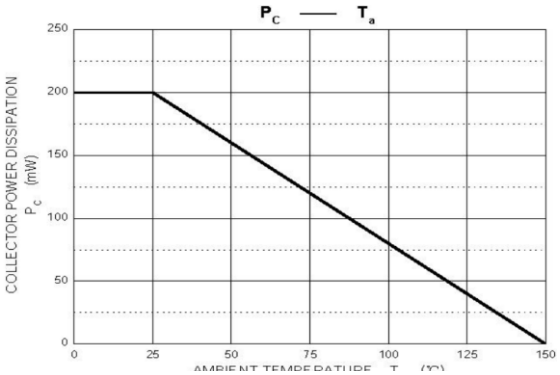




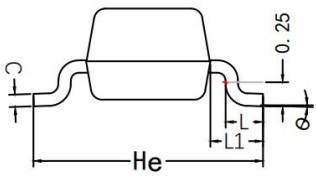


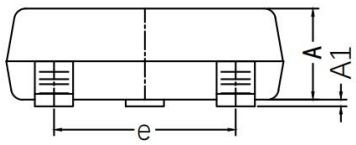


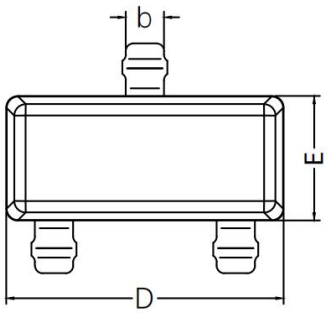




8. OUTLINE AND DIMENSIONS

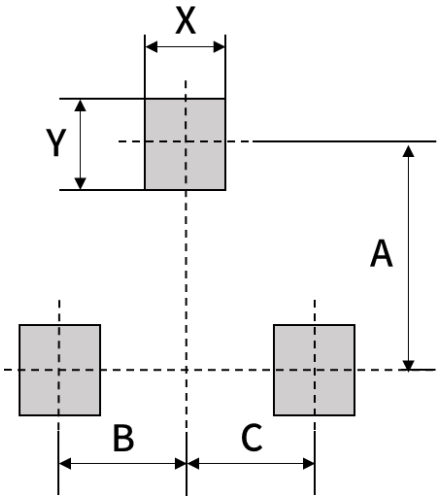






DIM	MIN	NOR	MAX
A	0.85	0.95	1.05
A1	0.01	0.06	0.10
b	0.36	0.44	0.52
c	0.09	0.13	0.18
D	2.80	2.90	3.10
E	1.20	1.30	1.40
e	1.78	1.90	2.04
L	0.30	0.40	0.50
L1	0.35	0.50	0.65
He	2.10	2.35	2.50
θ	0°	-	10°
All Dimensions in mm			

9. SUGGESTED PAD LAYOUT



SOT23		
DIM	mm	inch
A	2.00	0.079
B	0.95	0.037
C	0.95	0.037
X	0.80	0.031
Y	0.90	0.035

10. DISCLAIMER

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