

BC846A THRU BC849C

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Power Dissipation: 0.225W (T_{amb}=25°C)(Note 1)
- Collector Current: 0.1A
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

- Operating temperature : -55°C to +150°C
- Storage temperature : -55°C to +150°C
- Maximum Thermal Resistance: 625°C/W Junction To Ambient

DEVICE MARKING

BC846A=1A,46A; BC846B=1B,46B;
BC847A=1E,47A; BC847B=1F,47B; BC847C=1G,47C;
BC848A=1J,48A; BC848B=1K,48B; BC848C=1L,48C
BC849B=49B; BC849C=49C;

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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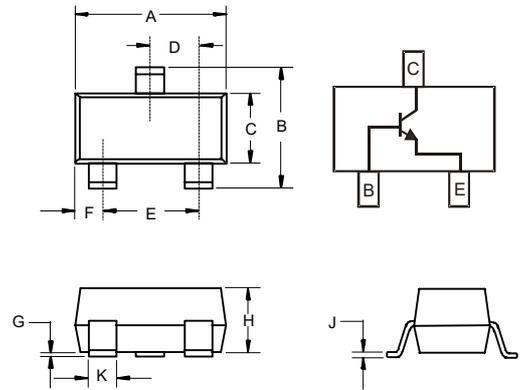
OFF CHARACTERISTICS

V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =10μAdc, I _E =0)				Vdc	
	BC846	80	---			
	BC847 BC848, BC849	50 30	---			
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =10mAdc, I _B =0)				Vdc	
	BC846	65	---			
	BC847 BC848, BC849	45 30	---			
V _{(BR)EBO}	Emitter-Base Breakdown Voltage (I _E =10μAdc, I _C =0)	6	---		Vdc	
I _{CBO}	Collector Cut-off Current BC846 (V _{CB} =70V, I _E =0) BC847 (V _{CB} =50V, I _E =0) BC848, BC849 (V _{CB} =30V, I _E =0)	---	0.1		μAdc	
	I _{CEO}	Collector Cut-off Current BC846 (V _{CE} =60V, I _B =0) BC847 (V _{CE} =45V, I _B =0) BC848, BC849 (V _{CE} =30V, I _B =0)	---	0.1		μAdc
		I _{EBO}	Emitter Cut-off Current (V _{EB} =5V, I _C =0mA)	---	0.1	
H _{FE(1)}		DC Current Gain(V _{CE} =5V, I _C =2mA)				
	BC846A, 847A, 848A	110	220			
	BC846B, 847B, 848B, 849B	200	450			
	BC847C, BC848C, BC849C	420	800			
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =100mA, I _B =5mA)	---	0.5		Vdc	
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C =100mA, I _B =5mA)	---	1.1		Vdc	
f _T	Transition Frequency (V _{CE} =5V, I _C =10mA, f=100MHz)	100	---		MHz	
C _{ob}	Collector output capacitance	---	4.5		pF	
	V _{CB} =10V, f=1MHz					

Note 1: Transistor mounted on an FR4 printed-circuit board

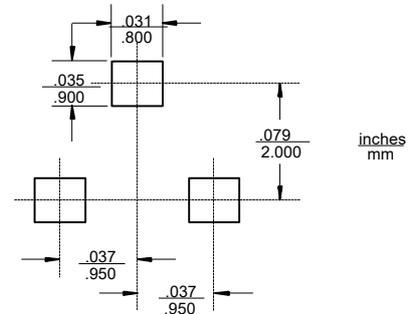
NPN Plastic-Encapsulate Transistors

SOT-23

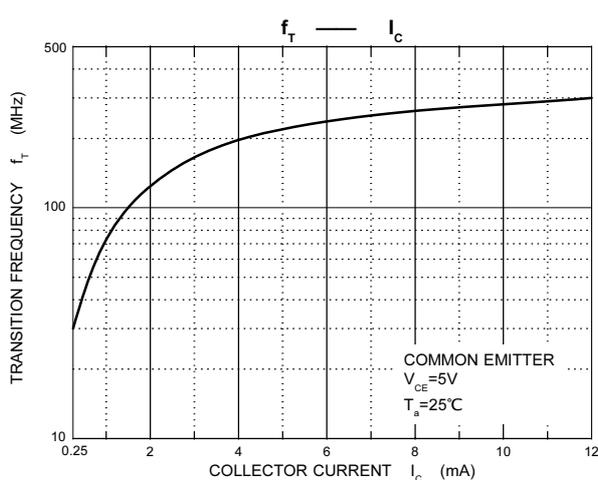
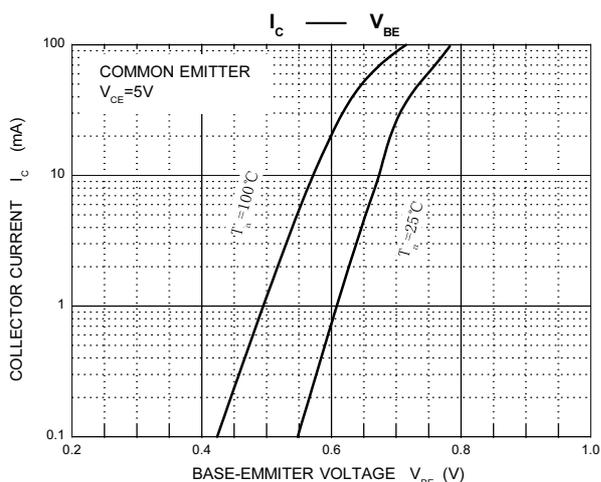
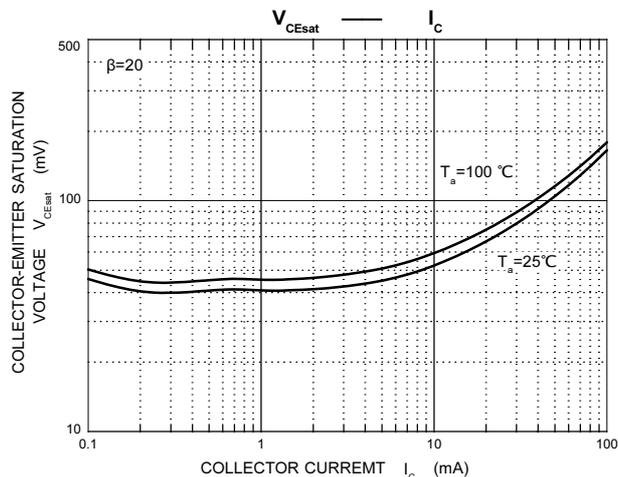
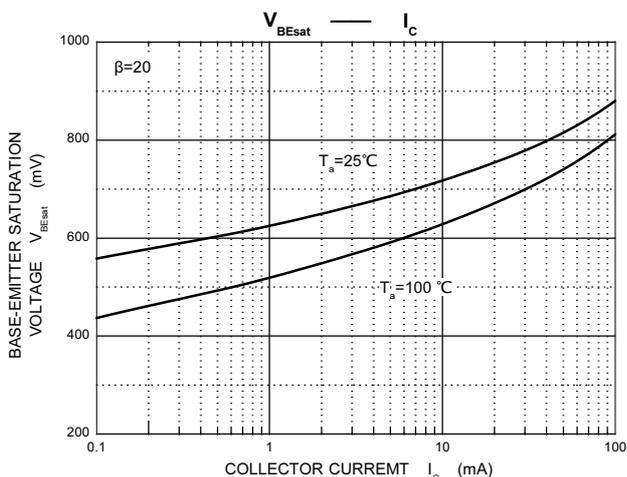
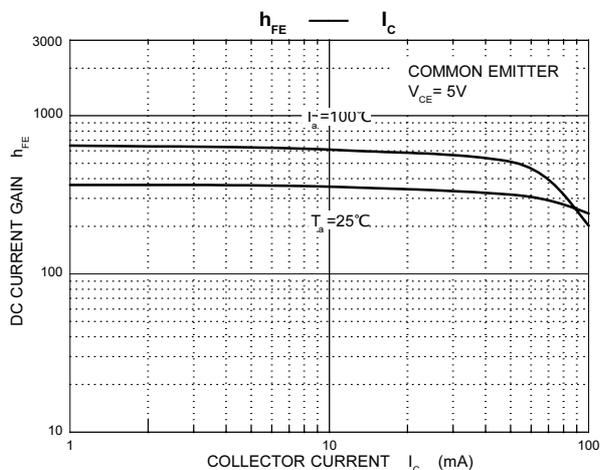
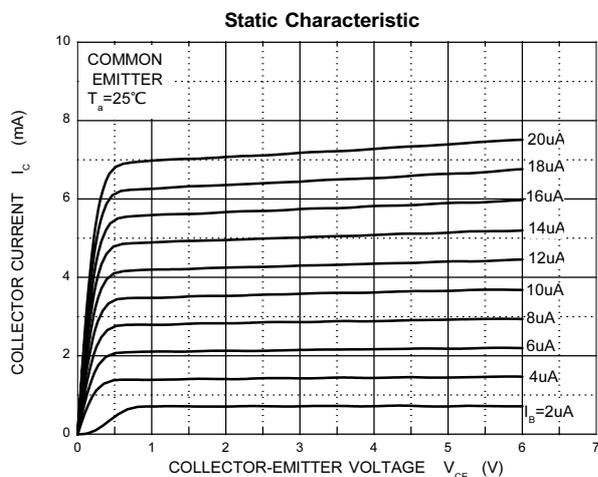


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.104	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

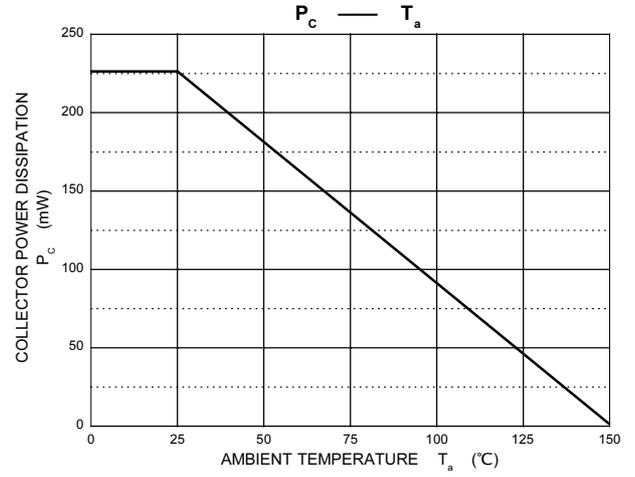
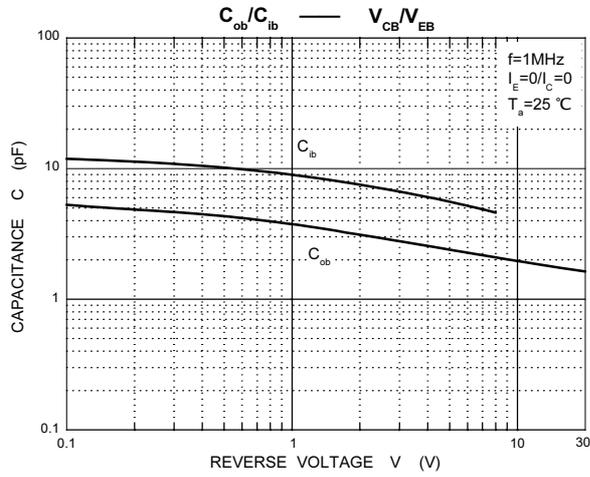
Suggested Solder Pad Layout



BC846A thru BC849C



BC846A thru BC849C





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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