

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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**Micro Commercial Components** 



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Min

Max

## **BC846A THRU BC849C**

### Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates
  - RoHS Compliant. See ordering information)
    Power Dissipation: 0.225W (T<sub>amb</sub>=25°C)(Note 1)
    Collector Current: 0.1A

- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Operating temperature : -55°C to +150°C Storage temperature :  $-55^{\circ}$ C to  $+150^{\circ}$ C

### **DEVICE MARKING**

Symbol

BC846A=1A,46A; BC846B=1B,46B;

BC847A=1E,47A; BC847B=1F,47B; BC847C=1G,47C; BC848A=1J,48A; BC848B=1K,48B: BC848C=1L,48C

Parameter

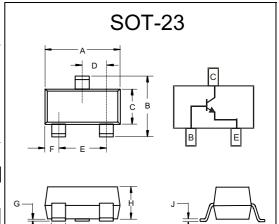
BC849B=49B; BC849C=49C;

### Electrical Characteristics @ 25% Unless Otherwise Specified

OFF CHARAC	CTERISTICS			
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I <sub>C</sub> =10µAdc, I <sub>E</sub> =0)			Vdc
	BC846		80	
	BC847		50	
	BC848, BC849		30	
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =10mAdc, I <sub>B</sub> =0)			Vdc
	BC846		65	
	BC847		45	
	BC848,BC849		30	
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage (I <sub>E</sub> =10µAdc, I <sub>C</sub> =0)		6	Vdc
I <sub>CBO</sub>	Collector Cut-off Current		0.1	µAdc
050	BC846 (V <sub>CR</sub> =80V, I <sub>F</sub> =0)		_	
	BC847 (V <sub>CB</sub> =50V, I <sub>E</sub> =0)			
	BC848, BC849 (V <sub>CB</sub> =30V, I <sub>E</sub> =0)			
I <sub>CEO</sub>	Collector Cut-off Current		0.1	μAdc
	BC846 (V <sub>CE</sub> =60V, I <sub>B</sub> =0)			
	BC847 (V <sub>CE</sub> =45V, I <sub>B</sub> =0)			
	BC848, BC849 (V <sub>CE</sub> =30V, I <sub>B</sub> =0)			
I <sub>EBO</sub>	Emitter Cut-off Current		0.1	μAdc
	$(V_{EB}=5V, I_{C}=0mA)$			
H <sub>FE(1)</sub>	DC Current Gain(V <sub>CE</sub> =5V, I <sub>C</sub> =2mA)			
	BC846A, 847A, 848A	110	220	
	BC846B, 847B, 848B,849B	200	450	
	BC847C, BC848C ,BC849C	420	800	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		0.5	Vdc
	$(I_C=100\text{mA}, I_B=5\text{mA})$			
$V_{BE(sat)}$	V <sub>BE(sat)</sub> Base-Emitter Saturation Voltage		1.1	Vdc
	$(I_C=100\text{mA}, I_B=5\text{mA})$			
f⊤	Transition Frequency	100		MHz
	(V <sub>CE</sub> =5V, I <sub>C</sub> =10mA, f=100MHz)			

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

### **NPN Plastic-Encapsulate Transistors**



DIMENSIONS							
	INCHES		MM				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α	.110	.120	2.80	3.04			
В	.083	.104	2.10	2.64			
С	.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			
Н	.035	.044	.89	1.12			
J	.003	.007	.085	.180			
K	.015	.020	.37	.51			

# Suggested Solder Pad Layout .031 .079 2.000 inches



#### **Micro Commercial Components**

### **Ordering Information:**

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

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