

Micro Commercial Components



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 (818) 701-4939 Fax:

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information) Power Dissipation: 0.225W $(T_{amb}=25^{\circ}C)$ (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"

Maximum Ratings

- Operating temperature : -55℃ to +150℃
- Storage temperature : -55°C to +150°C

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

Min

Max

Units

Parameter

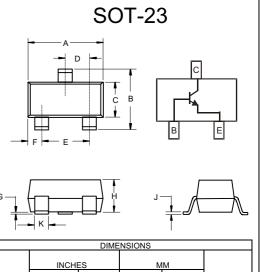
OFF CHARACTERISTICS

Symbol

••••••				
V _{(BR)CBO}	Collector-Base Breakdown Voltage			Vdc
	$(I_c=10\mu Adc, I_E=0)$			
	BC846	80		
	BC847	50		
	BC848, BC849	30		
V _{(BR)CEO}	V _{(BR)CEO} Collector-Emitter Breakdown Voltage			Vdc
. ,	$(I_{C}=10 \text{mAdc}, I_{B}=0)$			
	BC846	65		
	BC847	45		
	BC848,BC849	30		
V _{(BR)EBO}	Collector-Emitter Breakdown Voltage			Vdc
. ,	$(I_E=10\mu Adc, I_C=0)$	6		
I _{CBO}	I _{CBO} Collector Cut-off Current		0.1	µAdc
	BC846 (V _{CB} =70V, I _E =0)			
	BC847 (V _{CB} =50V, I _E =0)			
	BC848, BC849 (V _{CB} =30V, I _E =0)			
I _{CEO}	Collector Cut-off Current		0.1	µAdc
	BC846 (V _{CE} =60V, I _B =0)			
	BC847 (V _{CE} =45V, I _B =0)			
	BC848, BC849 (V _{CE} =30V, I _B =0)			
I _{EBO}	Emitter Cut-off Current	0.1 µAdc		
-	(V _{EB} =5V, I _C =0mA)			
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		0.5	Vdc
()	$(I_{C}=100 \text{ mA}, I_{B}=5 \text{ mA})$			
V _{BE(sat)}	Base-Emitter Saturation Voltage		1.1	Vdc
(out)	(I _C =100mA, I _B =5mA)			
f⊤	Transition Frequency	100		MHz
	(V _{CE} =5V, I _C =10mA, f=100MHz)			

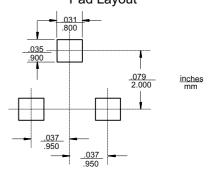
BC846A THRU BC849C

NPN Plastic-Encapsulate Transistors



	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
А	.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	

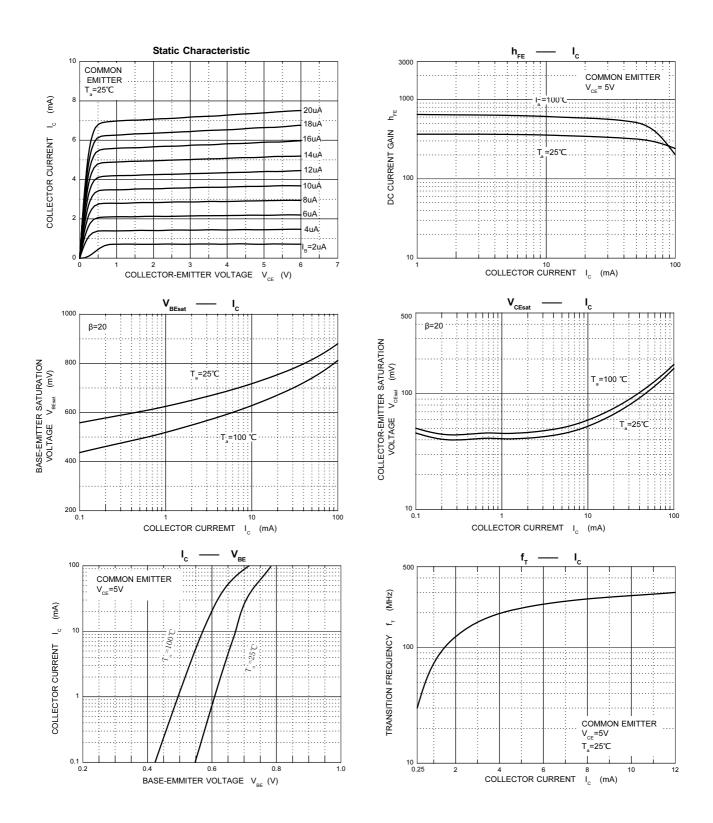
Suggested Solder Pad Layout



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

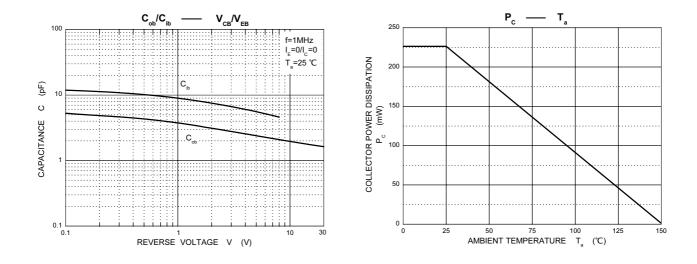


BC846A thru BC849C





BC846A thru BC849C





Ordering Information :

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

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

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp*. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp*. and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.