



Micro Commercial Components

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

BC847BS

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Ideally Suited for Automatic Insertion
- Ultra-Small Surface Mount Package
- For Switching and AF Amplifier Applications
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:1C

Mechanical Data

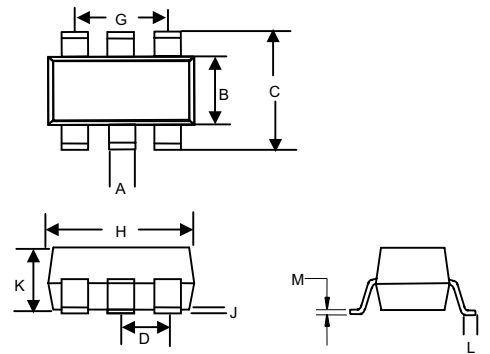
- Case: SOT-363, Molded Plastic
- Polarity: See Diagram

Maximum Ratings @ 25°C Unless Otherwise Specified

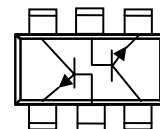
Symbol	Parameter	Value	Units
OFF CHARACTERISTICS			
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	45	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	50	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	6.0	Vdc
I_C	Collector Current	100	mA dc
I_{CM}	Peak Collector Current	200	mA dc
P_d	Power Dissipation @ $T_A=25^\circ C$	300	mW
T_J, T_{STG}	Operating & Storage Temperature	-55~+150	°C

Dual NPN Small Signal Transistor 300mW

SOT-363



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.006	.014	0.15	0.35	
B	.045	.053	1.15	1.35	
C	.085	.096	2.15	2.45	
D	.026		0.65Nominal		
G	.047	.055	1.20	1.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.043	0.90	1.10	
L	.010	.018	0.26	0.46	
M	.003	.006	0.08	0.15	



BC847BS



Micro Commercial Components TM

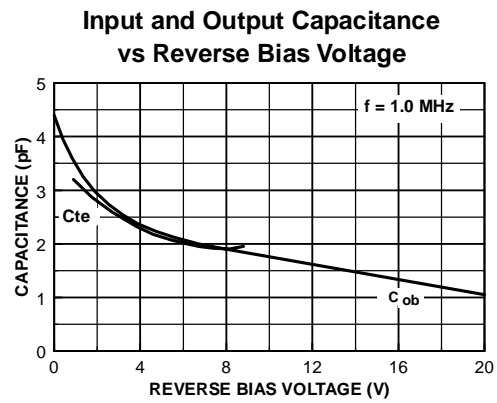
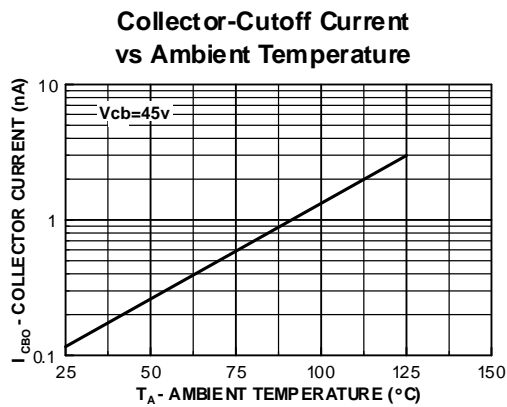
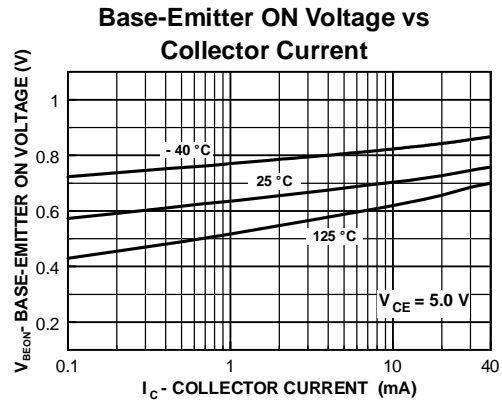
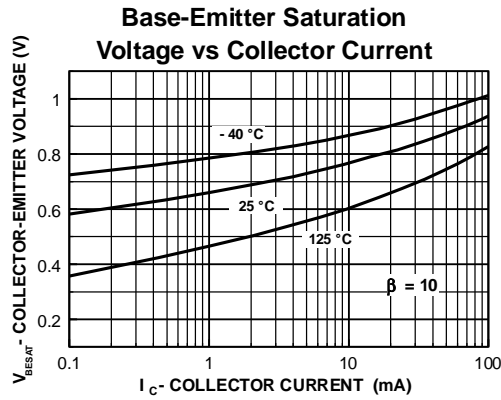
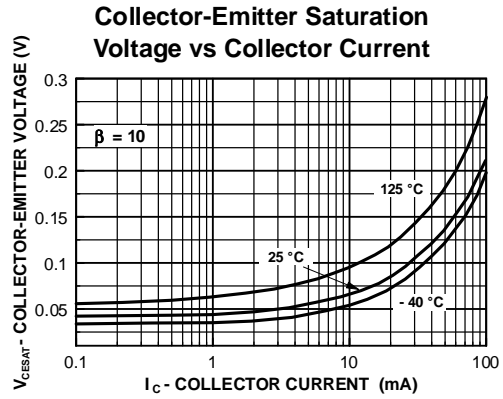
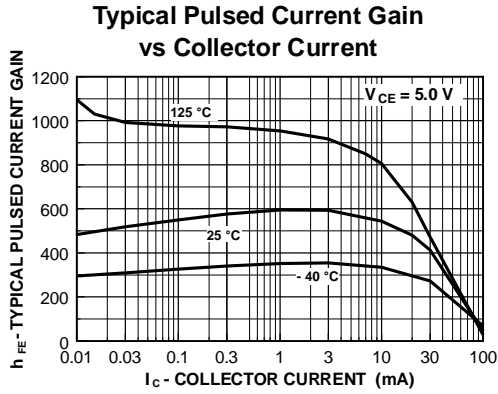
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	Test Condition
OFF CHARACTERISTICS						
h_{FE}	DC Current Gain	200	---	450	---	$V_{CE}=5.0V, I_C=2.0mA$
$V_{CE(SAT)}$	Collector-Emitter Saturation Voltage	---	---	250 650	mV	$I_C=10mA, I_B=0.5mA$ $I_C=100mA, I_B=5.0mA$
$V_{BE(ON)}$	Base-Emitter Voltage	580	665	700	mV	$V_{CE}=5.0V, I_C=2.0mA$
I_{CBO}	Collector-Cutoff Current	---	---	15	nA	$V_{CB}=30V, I_E=0$
f_T	Gain Bandwidth Product	---	200	---	MHz	$V_{CE}=5.0V, I_C=10mA,$ $f=100MHz$
C_{OB}	Collector-output Capacitance	---	2	---	pF	$V_{CB}=10V, f=1.0MHz$

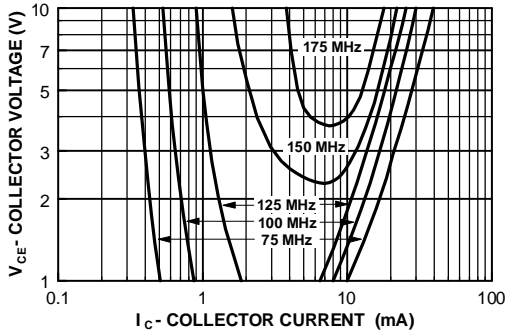
BC847BS



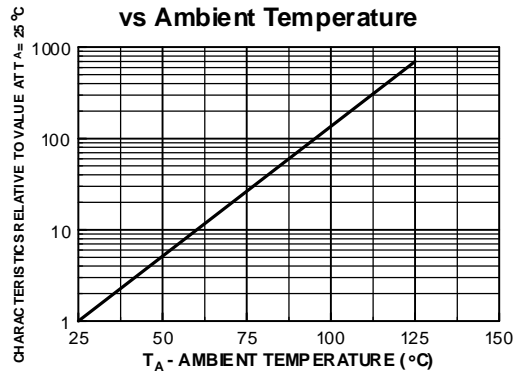
Micro Commercial Components



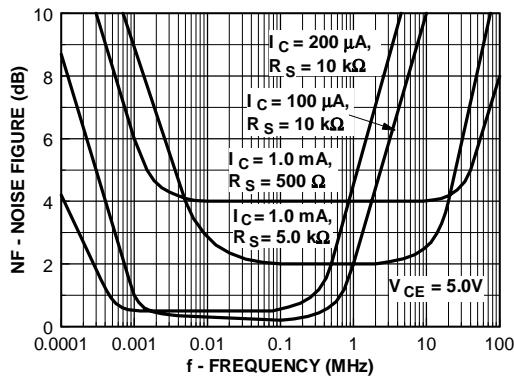
Contours of Constant Gain Bandwidth Product (f_T)



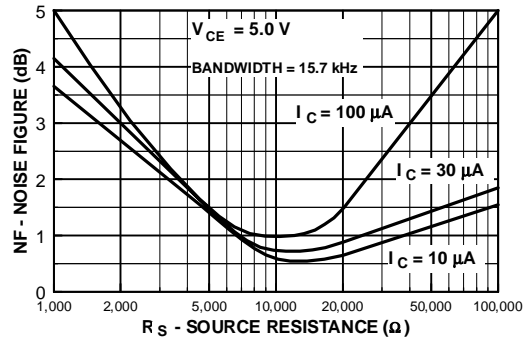
Normalized Collector-Cutoff Current vs Ambient Temperature



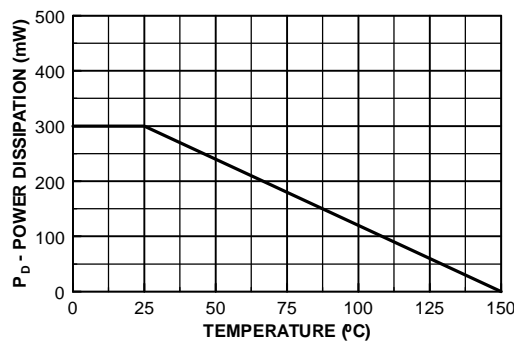
Noise Figure vs Frequency



Wideband Noise Frequency vs Source Resistance



Power Dissipation vs Ambient Temperature





Micro Commercial Components

Ordering Information :

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

*****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.