



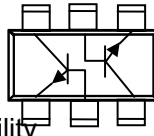
Micro Commercial Components

Micro Commercial Components
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BC847BS

Features

- Ideally Suited for Automatic Insertion
- Ultra-Small Surface Mount Package
- For Switching and AF Amplifier Applications
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking:1C



Dual NPN Small Signal Transistor 300mW

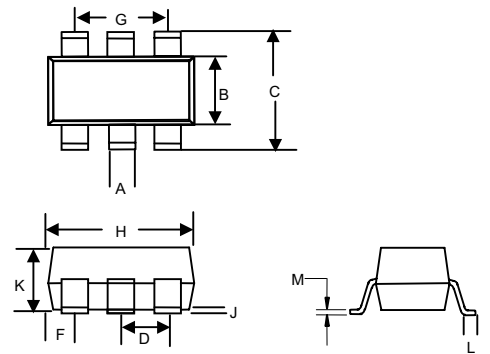
Mechanical Data

- 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
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage	6.0	Vdc
I_C	Collector Current	100	mAdc
I_{CM}	Peak Collector Current	200	mAdc
P_d	Power Dissipation @ $T_A=25^\circ\text{C}$	300	mW
T_J, T_{STG}	Operating & Storage Temperature	-55~+150	$^\circ\text{C}$

SOT-363



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.004	.012	0.10	0.30	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026		0.65Nominal		
F	.012	.016	0.30	0.40	
H	.071	.087	1.80	2.20	
J	---	.004	---	0.10	
K	.035	.039	0.90	1.00	
L	.010	.016	0.25	0.40	
M	.004	.016	0.10	0.25	

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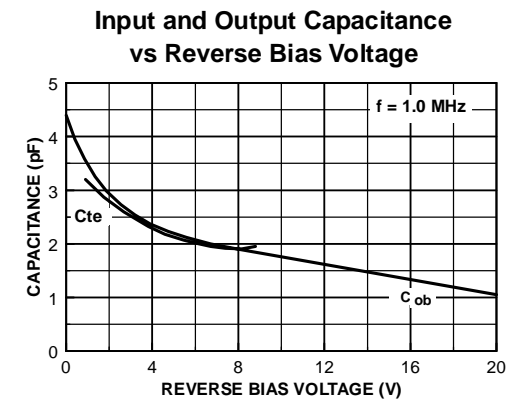
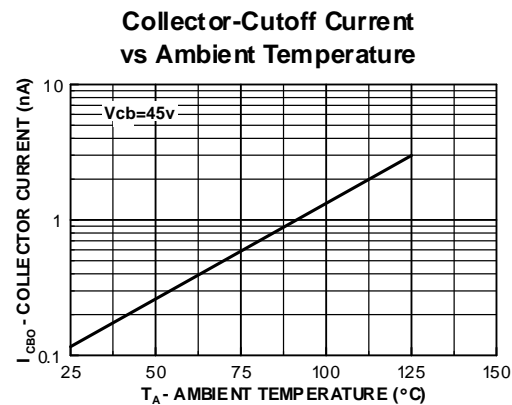
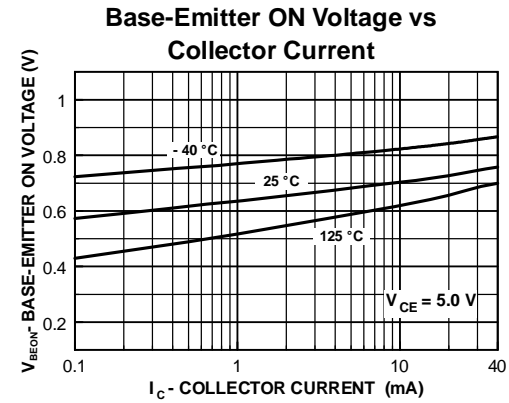
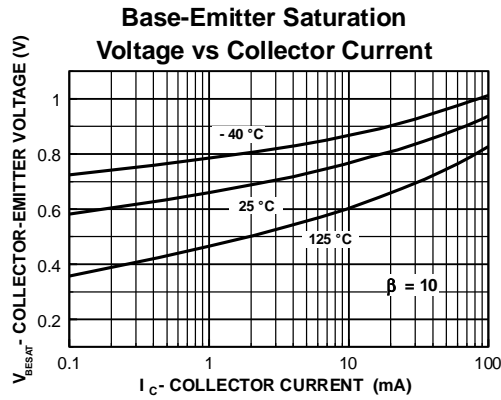
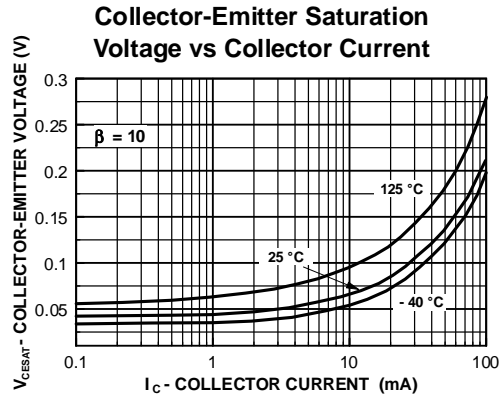
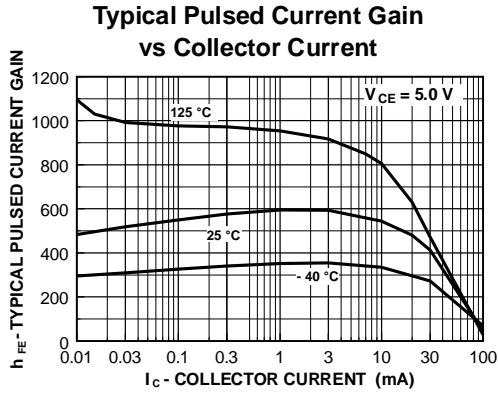
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	Test Condition
OFF CHARACTERISTICS						
h_{FE}	DC Current Gain	110	---	630	---	$V_{CE}=5.0V, I_C=2.0mA$
$V_{CE(SAT)}$	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	$V_{CB}=10V, f=1.0MHz$

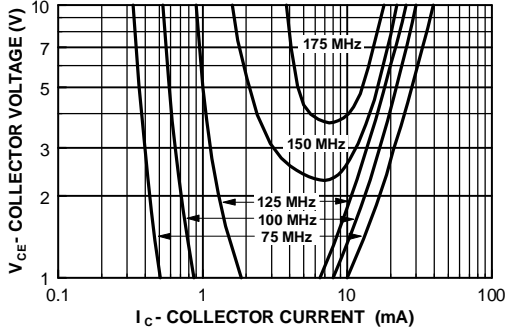
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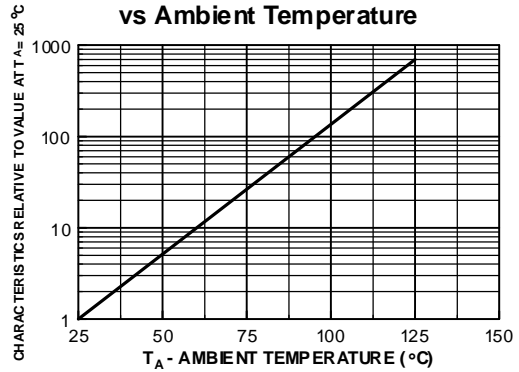
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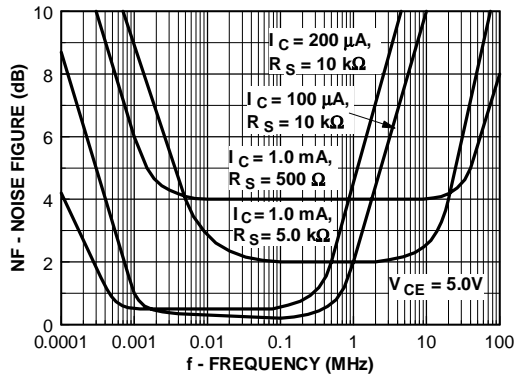
Contours of Constant Gain Bandwidth Product (f_T)



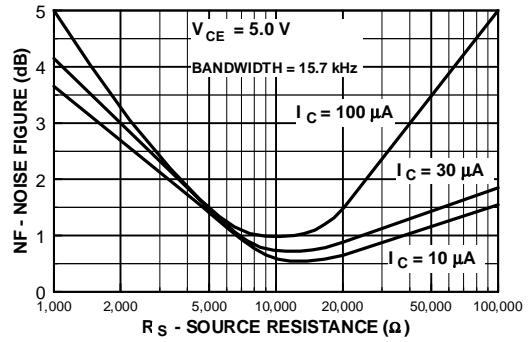
Normalized Collector-Cutoff Current vs Ambient Temperature



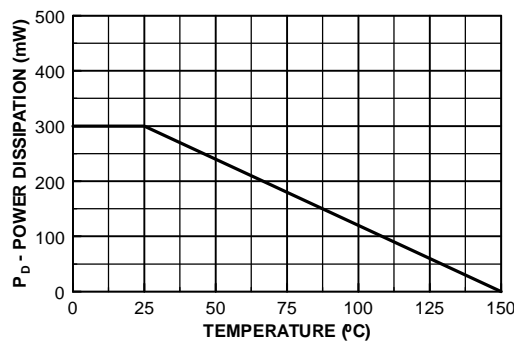
Noise Figure vs Frequency



Wideband Noise Frequency vs Source Resistance



Power Dissipation vs Ambient Temperature





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Ordering Information

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

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