Micro Commercial Components

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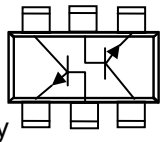
BC847BS

Dual NPN Small Signal Transistor 300mW

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

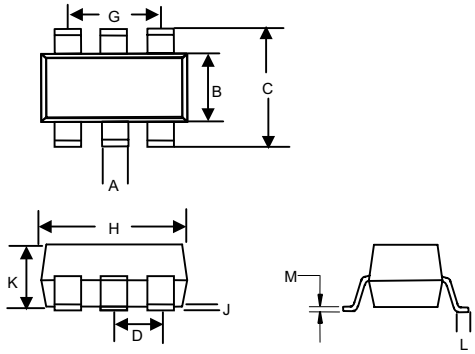
Mechanical Data

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

Maximum Ratings @ 25℃ 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	mAdc
I_{CM}	Peak Collector Current	200	mAdc
P_d	Power Dissipation @ T_A=25℃	300	mW
T_J, T_{STG}	Operating & Storage Temperature	-55~+150	℃

SOT-363



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	

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Electrical Characteristics @ 25℃ 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

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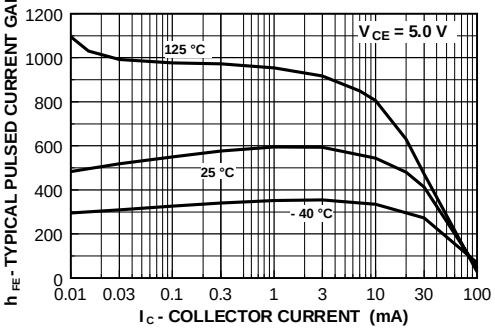
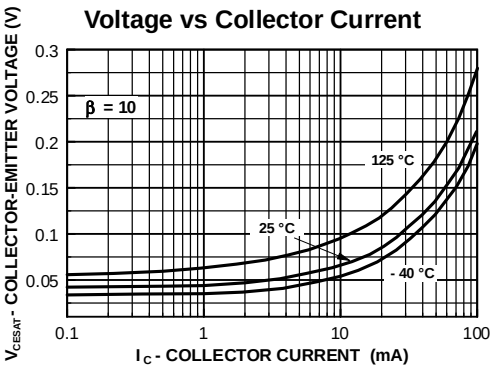
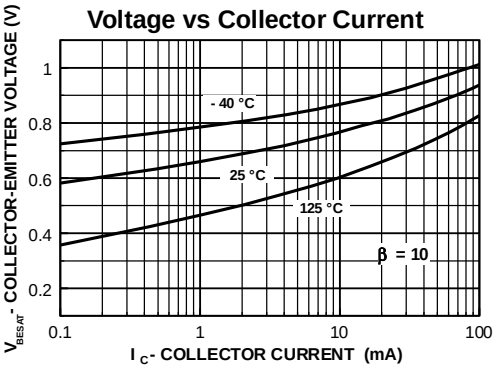
Typical Pulsed Current Gain vs Collector Current



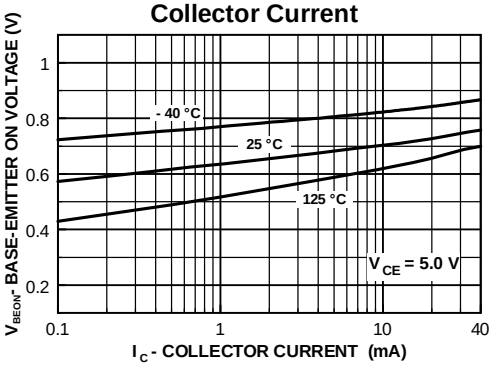
Collector-Emitter Saturation Voltage vs Collector Current



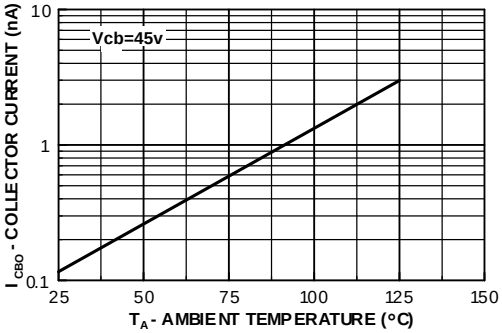
Base-Emitter Saturation Voltage vs Collector Current



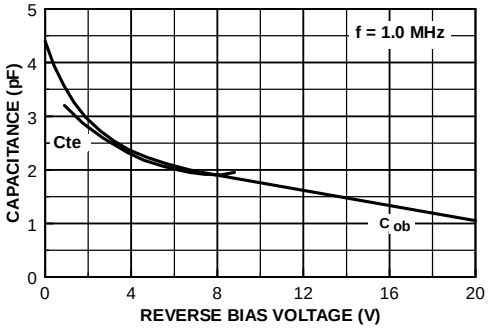
Base-Emitter ON Voltage vs Collector Current



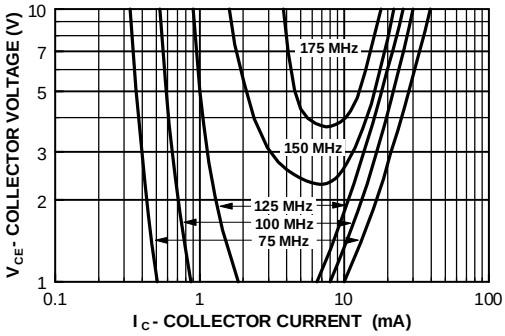
Collector-Cutoff Current vs Ambient Temperature



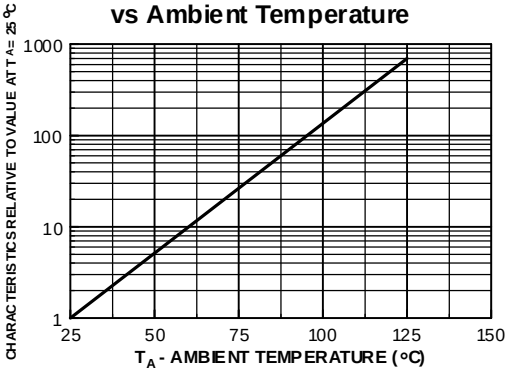
Input and Output Capacitance vs Reverse Bias Voltage



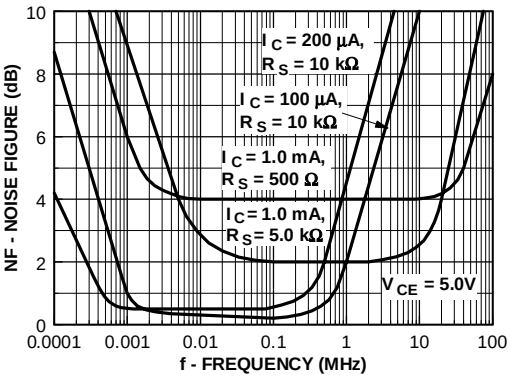
Contours of Constant Gain Bandwidth Product (f_T)



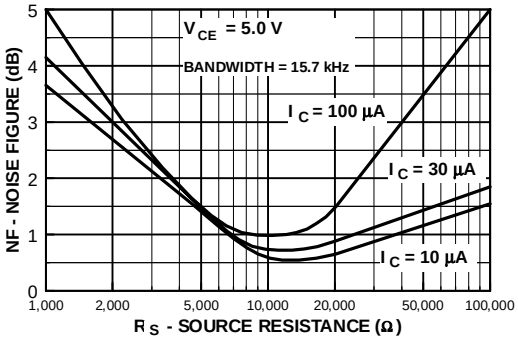
Normalized Collector-Cutoff Current vs Ambient Temperature



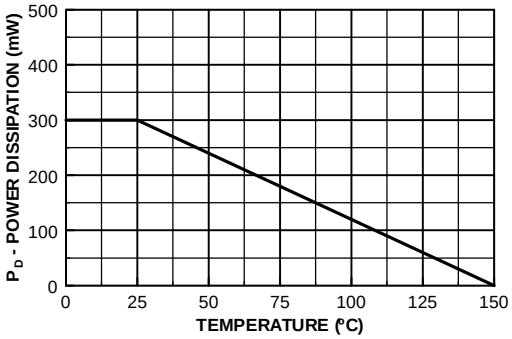
Noise Figure vs Frequency



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