



Micro Commercial Components
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BC857AT, BT, CT

Features

- Epitaxial Die Construction
- For Switching and AF Amplifier Applications
- Lead Free Finish/Rohs Compliant ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	-45	V
V _{CBO}	Collector-Base Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-6.0	V
I _C	Collector Current-Continuous	-100	mA
P _d	Power Dissipation	150	mW
T _J	Operating Junction Temperature	-55 to +150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

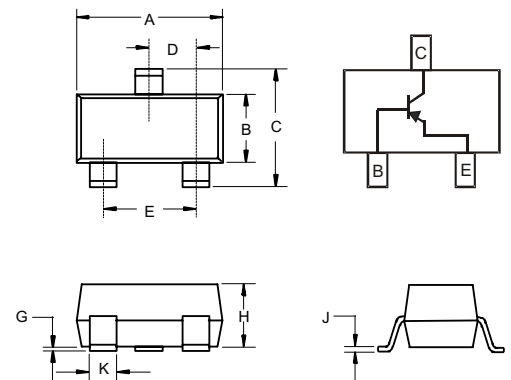
Symbol	Parameter	Min	Typ	Max	Units
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =-10mA, I _B =0)	-45	---	---	V
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =-10uA, I _B =0)	-50	---	---	V
V _{(BR)EBO}	Collector-Emitter Breakdown Voltage (I _E =-1uA, I _C =0)	-6	---	---	V
I _{CBO}	Collector Cutoff Current (V _{CB} = -30V)	---	---	-15	nA
h _{FE}	DC Current Gain Current Gain A (V _{CE} =-5.0V, I _C =-2.0mA) B C	125 220 420	---	250 475 800	---
V _{CE(SAT)}	Collector-Emitter Saturation Voltage (I _C = -10mA, I _B = -0.5mA) (I _C = -100mA, I _B = -5.0 mA)	---	---	-300 -650	mV
V _{BE(SAT)}	Base-Emitter Saturation Voltage (I _C = -10mA, I _B = -0.5mA) (I _C = -100mA, I _B = -5.0mA)	---	-700 -900	---	mV
V _{BE(ON)}	Base-Emitter Voltage (V _{CE} = -5.0V, I _C = -2.0mA) (V _{CE} = -5.0V, I _C = -10mA)	-600 ---	---	-750 -820	mV
Noise Figure	NF (I _C = -0.2mA, V _{CE} = -5.0V, R _S = 2.0KΩ, f = 1.0KHz, BW = 200Hz)	---	---	10	dB
f _T	Transition Frequency (V _{CE} = -5.0V, I _C = -10mA, f=100MHz)	100	---	---	MHz
C _{oB}	Output Capacitance (V _{CB} = -10V, f = 1.0MHz)	---	---	4.5	pF

Classification OF h_{FE}

Rank	AT	BT	CT
Marking	3E	3F	3G

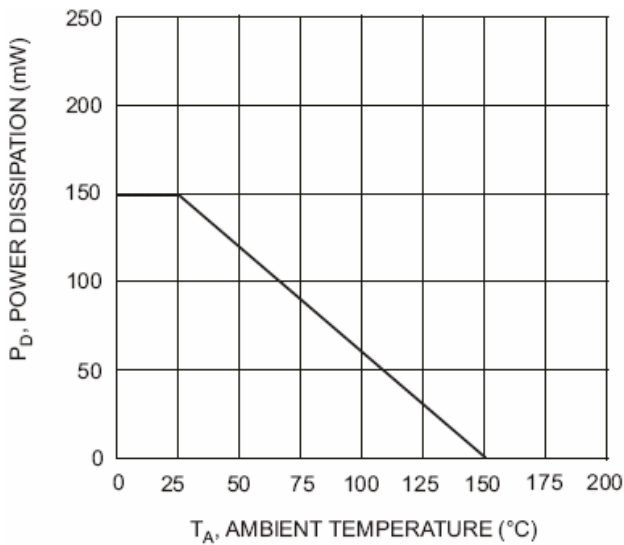
PNP SMALL SIGNAL SURFACE MOUNT TRANSISTOR

SOT-523

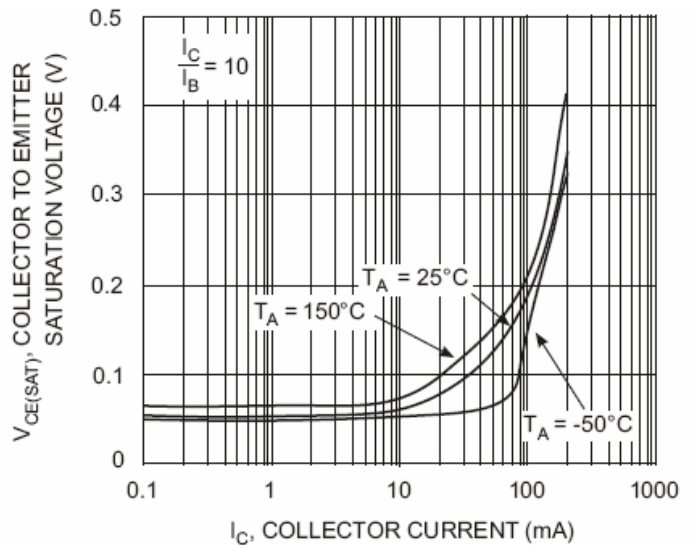


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.059	.067	1.50	1.70	
B	.030	.033	0.75	0.85	
C	.057	.069	1.45	1.75	
D	.020 Nominal		0.50Nominal		
E	.035	.043	0.90	1.10	
G	.000	.004	.000	.100	
H	.028	.031	.70	0.80	
J	.004	.008	.100	.200	
K	.010	.014	.25	.35	

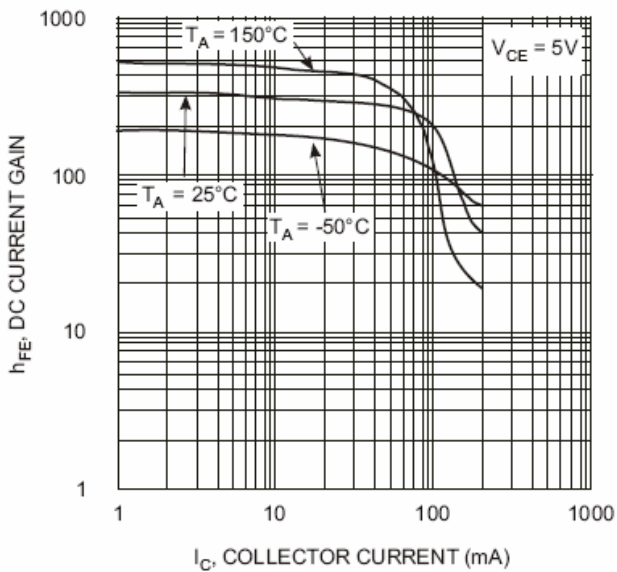
Typical Characteristics



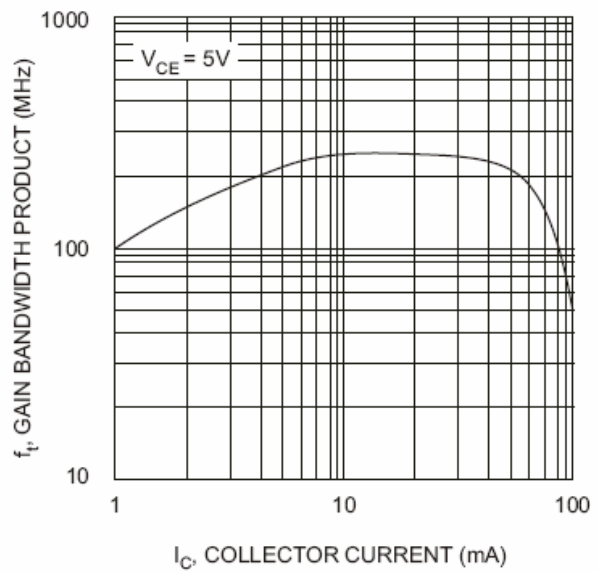
T_A, AMBIENT TEMPERATURE (°C)
Fig. 1, Max Power Dissipation vs Ambient Temperature



I_C, COLLECTOR CURRENT (mA)
Fig. 2 Collector Emitter Saturation Voltage vs. Collector Current



I_C, COLLECTOR CURRENT (mA)
Fig. 3, DC Current Gain vs. Collector Current



I_C, COLLECTOR CURRENT (mA)
Fig. 4, Gain Bandwidth Product vs Collector Current



Micro Commercial Components

Ordering Information :

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

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