



Micro Commercial Components

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# BC857BV

## PNP Plastic-Encapsulate Transistors

### Features

- Epitaxial Die Construction
- Complementary NPN Type Available (BC847BV)
- Ultra-small Surface Mount Package
- Lead Free Plating
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking:K5V

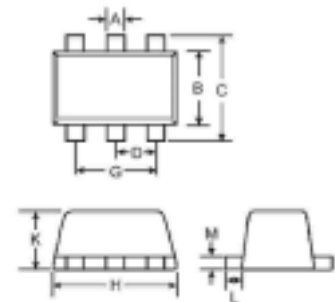
### Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	-45	V
V <sub>CBO</sub>	Collector-Base Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current-Continuous	-0.1	A
P <sub>C</sub>	Collector Dissipation	0.15	W
R <sup>θ</sup> <sub>JA</sub>	Thermal Resistance Junction to Ambient	833	°C/W
T <sub>J</sub>	Operating Junction Temperature	-55 to +150	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

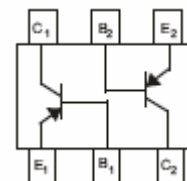
### Electrical Characteristics @ 25°C Unless Otherwise Specified

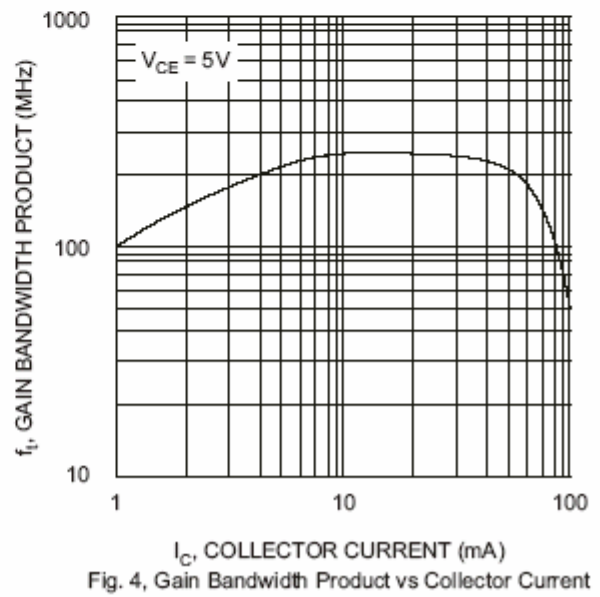
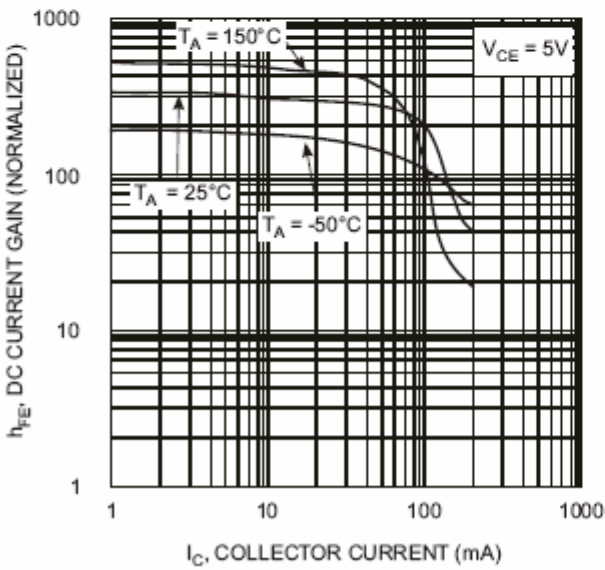
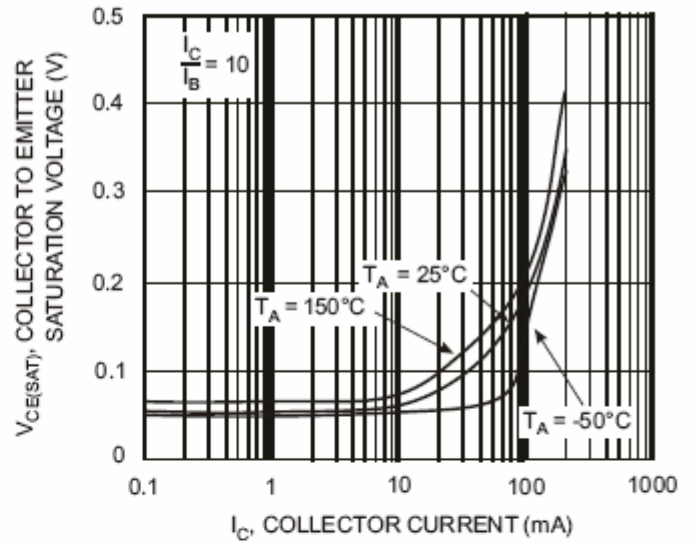
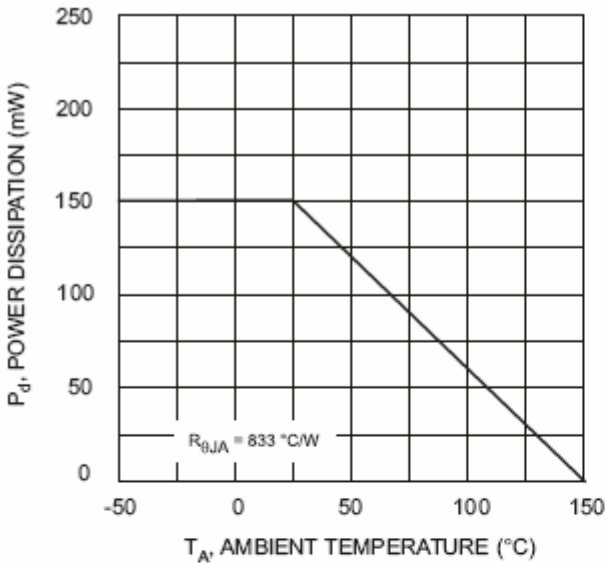
Symbol	Parameter	Min	Typ	Max	Units
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-10mA, I <sub>B</sub> =0)	-45	---	---	Vdc
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage (I <sub>C</sub> =-10μA, I <sub>E</sub> =0)	-50	---	---	Vdc
V <sub>(BR)EBO</sub>	Collector-Emitter Breakdown Voltage (I <sub>E</sub> =-1μA, I <sub>C</sub> =0)	-6	---	---	Vdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =-30Vdc, I <sub>E</sub> =0Vdc)	---	---	-15	nA
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =-2mA, V <sub>CE</sub> =-5Vdc)	200	---	475	---
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-10mA, I <sub>B</sub> =-0.5mA) (I <sub>C</sub> =-100mA, I <sub>B</sub> =-5mA)	---	---	-0.1 -0.4	Vdc
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage (I <sub>C</sub> =-10mA, I <sub>B</sub> =-0.5mA) (I <sub>C</sub> =-100mA, I <sub>B</sub> =-5mA)	---	-0.7 -0.9	---	Vdc
V <sub>BE</sub>	Base-Emitter Voltage (I <sub>C</sub> =-2mA, V <sub>CE</sub> =-5Vdc) (I <sub>C</sub> =-10mA, V <sub>CE</sub> =-5Vdc)	-0.6 ---	---	-0.75 -0.82	Vdc
f <sub>T</sub>	Transition Frequency (V <sub>CE</sub> =-5Vdc, I <sub>C</sub> =-10mA, f=100MHz)	100	---	---	MHz
C <sub>ob</sub>	Output Capacitance (V <sub>CB</sub> =-10Vdc, f=1.0MHz, I <sub>E</sub> =0)	---	---	4.5	pF
NF	Noise Figure (V <sub>CE</sub> =-5V, I <sub>C</sub> =-0.2mA, f=1KHz, R <sub>S</sub> =2kΩ, BW=200Hz)	---	---	10	dB

### SOT-563



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.006	.011	0.15	0.30	
B	.043	.049	1.10	1.25	
C	.061	.067	1.55	1.70	
D	.020		0.50		
G	.035	.043	0.90	1.10	
H	.059	.067	1.50	1.70	
K	.022	.023	0.56	0.60	
L	.004	.011	0.10	0.30	
M	.004	.007	0.10	0.18	







TM

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## Ordering Information

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

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