



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Micro Commercial Components



Micro Commercial Components  
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## BC847BV

### Features

- Halogen free available upon request by adding suffix "-HF"
- Epitaxial Die Construction
- Complementary PNP Type Available (BC857BV)
- Ultra-small Surface Mount Package
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:K4V

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

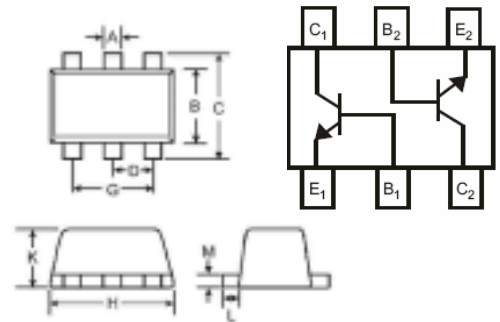
Symbol	Rating	Rating	Unit
V <sub>CEO</sub>	Collector-Emitter Voltage	45	V
V <sub>CBO</sub>	Collector-Base Voltage	50	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current-Continuous	0.1	A
P <sub>C</sub>	Collector Dissipation	0.15	W
R <sup>θ</sup> <sub>JA</sub>	Thermal Resistance 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> =10mA, I <sub>E</sub> =0)	50	---	---	Vdc
V <sub>(BR)EBO</sub>	Collector-Emitter Breakdown Voltage (I <sub>E</sub> =1mA, 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	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =5Vdc, I <sub>C</sub> =0Vdc)	---	---	100	nAdc
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =2mA, V <sub>CE</sub> =5Vdc)	200	---	450	---
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)	---	---	100 300	mVdc
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)	---	700 900	---	mVdc
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)	580	660	700 770	mVdc
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, BW=200Hz, f=1KHz, R <sub>S</sub> =2kΩ)	---	---	10	dB

## NPN Plastic-Encapsulate Transistors

### 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	

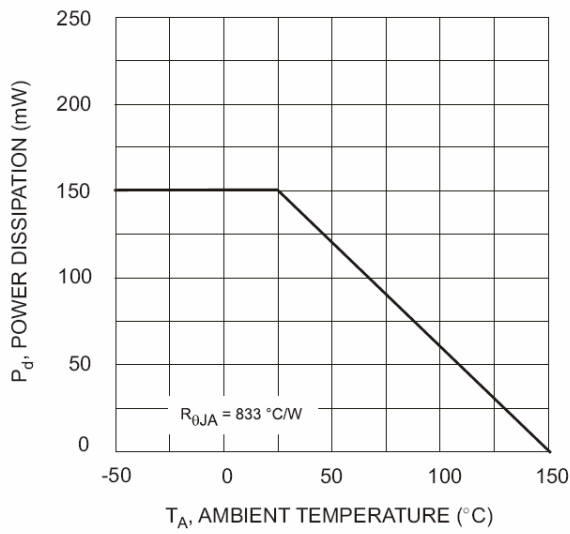


Fig. 1, Derating Curve - Total

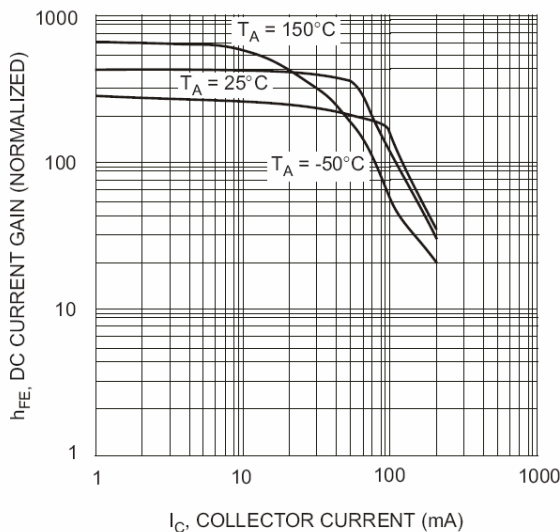


Fig. 3, DC Current Gain vs Collector Current

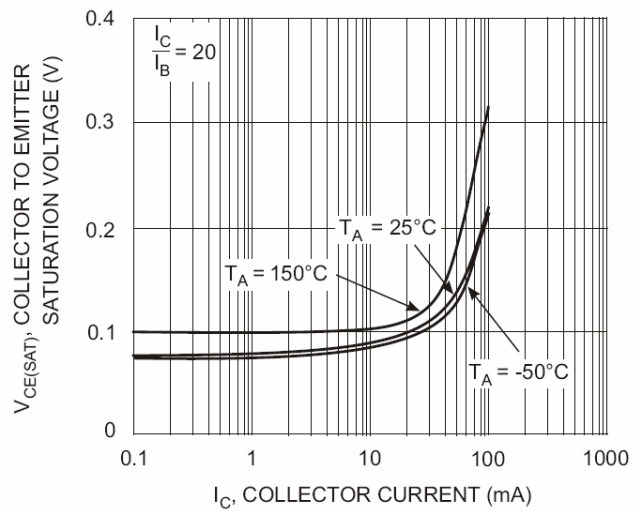


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

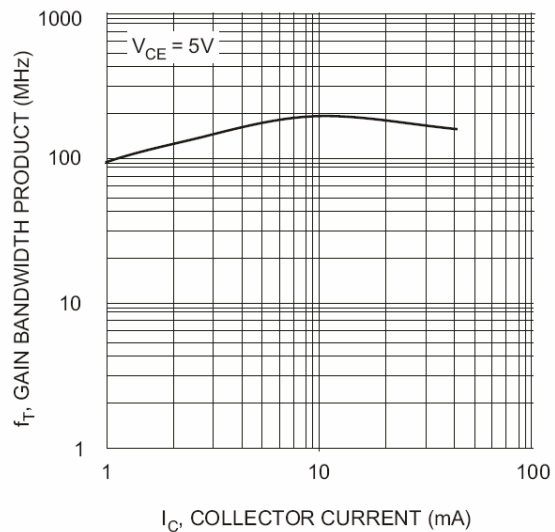


Fig. 4, Gain Bandwidth Product vs Collector Current



Micro Commercial Components

### Ordering Information :

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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