



Micro Commercial Components



Micro Commercial Components  
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# BC847BM

## NPN Plastic-Encapsulate Transistors

### Features

- Halogen free available upon request by adding suffix "-HF"
- Low Current
- Low Voltage
- 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:D5

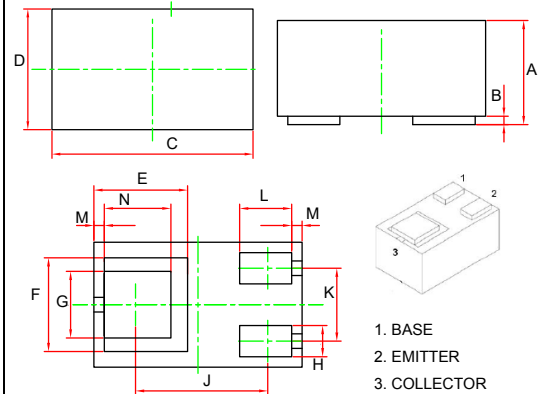
### Maximum Ratings @ 25°C Unless Otherwise Specified

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	0.1	A
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient	1250	°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

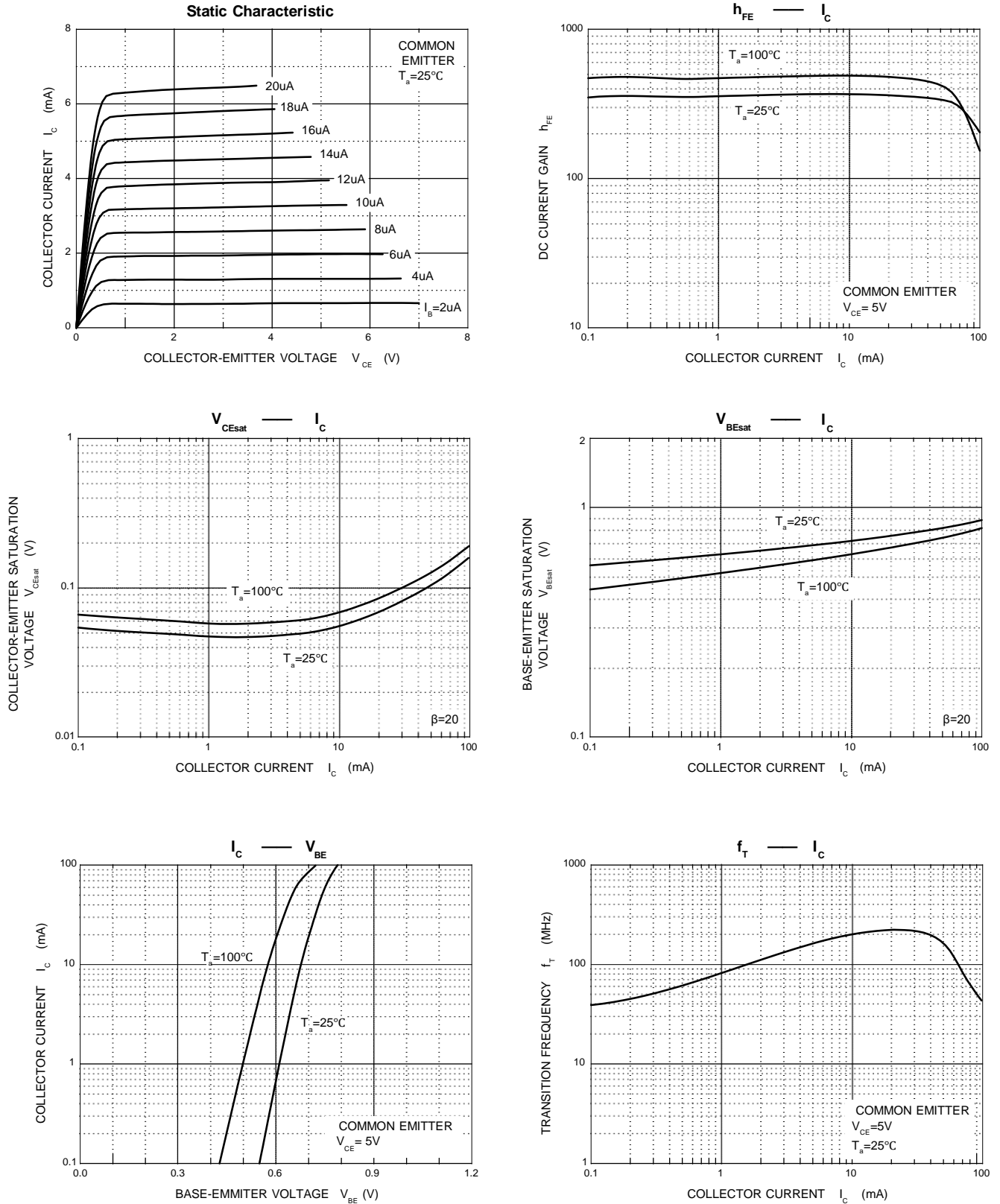
Symbol	Parameter	Min	Typ	Max	Units
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =10mA, I <sub>B</sub> =0)	45	---	---	Vdc
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage (I <sub>C</sub> =10μA, I <sub>E</sub> =0)	50	---	---	Vdc
V <sub>(BR)EBO</sub>	Collector-Emitter Breakdown 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	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =5Vdc, I <sub>C</sub> =0Vdc)	---	---	15	nAdc
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =2mA, V <sub>CE</sub> =5Vdc)	220	---	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)	---	---	200 400	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)	---	---	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)	---	2.5	---	pF
NF	Noise Figure (V <sub>CE</sub> =5V, I <sub>E</sub> =0.2mA, f=1KHz, R <sub>s</sub> =1kΩ, B=200Hz)	---	---	10	dB

### SOT-883

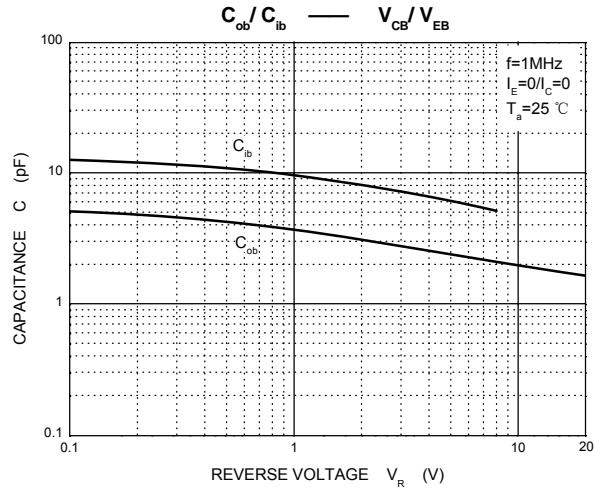


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.450	0.550	
B	0.000	0.004	0.010	0.100	
C	0.037	0.041	0.950	1.050	
D	0.022	0.026	0.550	0.650	
E	0.018REF.		0.450REF.		
F	0.018REF.		0.450REF.		
G	0.011	0.015	0.270	0.370	
H	0.004	0.008	0.100	0.200	
J	0.025REF.		0.635REF.		
K	0.012	0.016	0.300	0.400	
L	0.008	0.012	0.200	0.300	
M	0.002REF.		0.050REF.		
N	0.011	0.015	0.270	0.370	

## Typical Characteristics



## Typical Characteristics





## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 10Kpcs/Reel

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

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