



Micro Commercial Components



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BC857BM

PNP 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:D2

Maximum Ratings @ 25°C Unless Otherwise Specified

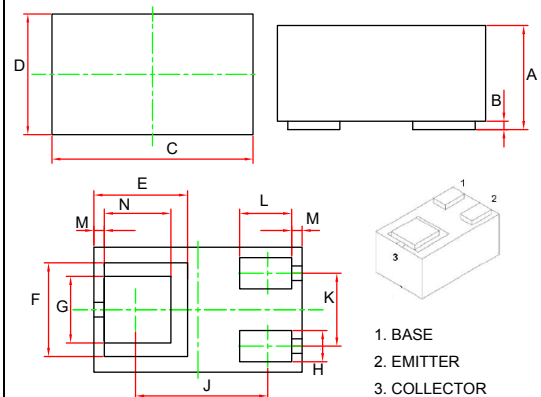
Symbol	Rating	Rating	Unit
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{CBO}	Collector-Base Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-100	mA
R_{JA}	Thermal Resistance Junction to Ambient	1250	°C/W
T_J	Operating Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=-10\text{mA}$, $I_E=0$)	-45	---	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=-10\text{mA}$, $I_E=0$)	-50	---	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ($I_E=-10\text{mA}$, $I_C=0$)	-6	---	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CE}=-30\text{Vdc}$, $I_E=0\text{Vdc}$)	---	---	-15	nAdc
I_{EBO}	Emitter Cutoff Current ($V_{EB}=-5\text{Vdc}$, $I_C=0\text{Vdc}$)	---	---	-15	nAdc
h_{FE}	DC Current Gain ($I_C=-2\text{mA}$, $V_{CE}=-5\text{Vdc}$)	220	---	475	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage * ($I_C=-10\text{mA}$, $I_E=-0.5\text{mA}$) ($I_C=-100\text{mA}$, $I_E=-5\text{mA}$)	---	---	-200 -400	mVdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage * ($I_C=-10\text{mA}$, $I_E=-0.5\text{mA}$) ($I_C=-100\text{mA}$, $I_E=-5\text{mA}$)	---	-700 -900	---	mVdc
V_{BE}	Base-Emitter Voltage * ($I_C=-2\text{mA}$, $V_{CE}=-5\text{Vdc}$) ($I_C=-10\text{mA}$, $V_{CE}=-5\text{Vdc}$)	---	---	-700 -770	mVdc
f_T	Transition Frequency ($V_{CE}=-5\text{Vdc}$, $I_C=-10\text{mA}$, $f=100\text{MHz}$)	100	---	---	MHz
C_{ob}	Output Capacitance ($V_{CB}=-10\text{Vdc}$, $f=1.0\text{MHz}$, $I_E=0$)	---	2.5	---	pF
NF	Noise Figure ($V_{CE}=-5\text{V}$, $I_E=-0.2\text{mA}$, $f=1\text{kHz}$, $R_S=1\text{k}\Omega$, $B=200\text{Hz}$)	---	10	---	dB

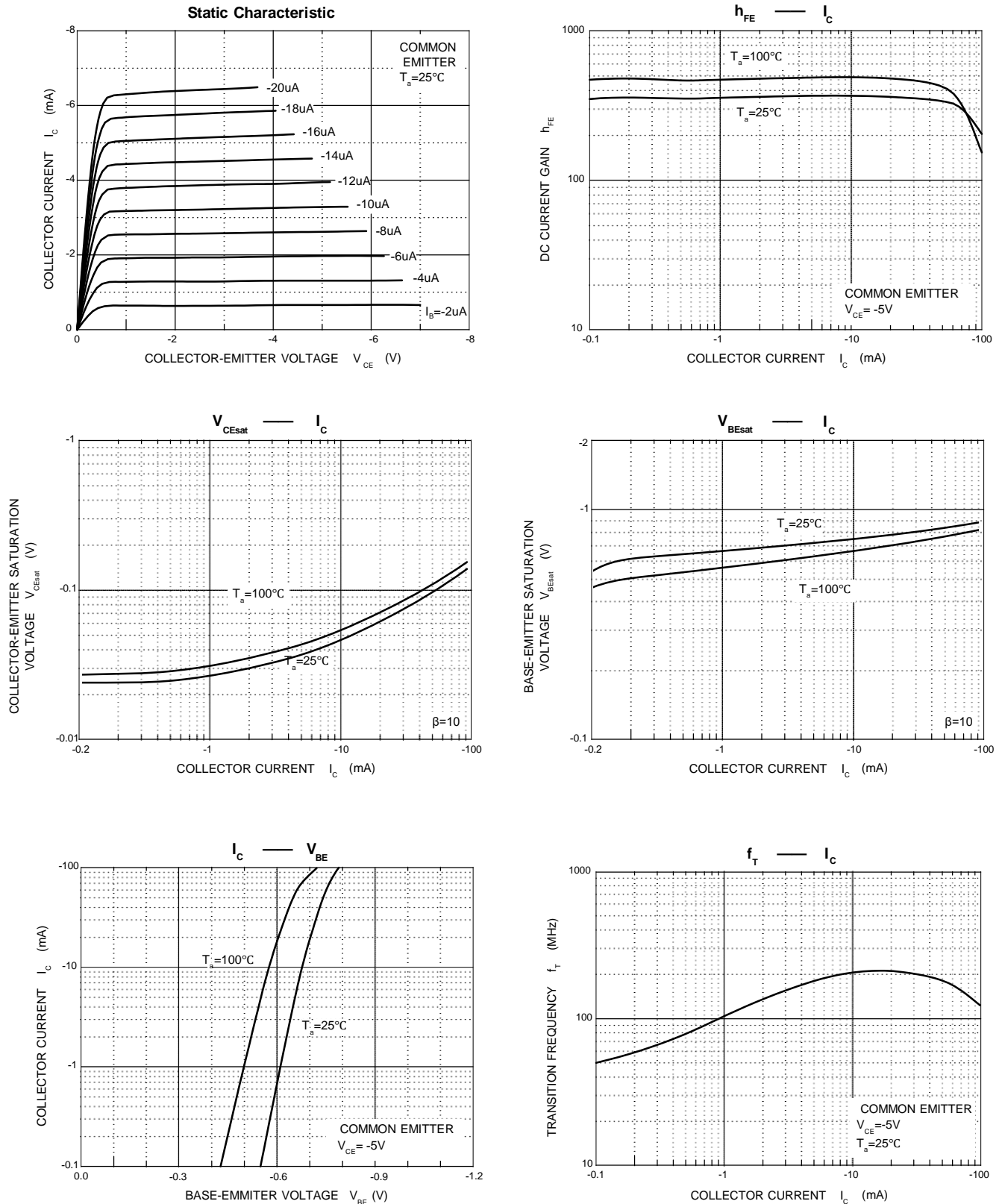
*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycles $\leq 2.0\%$.

SOT-883

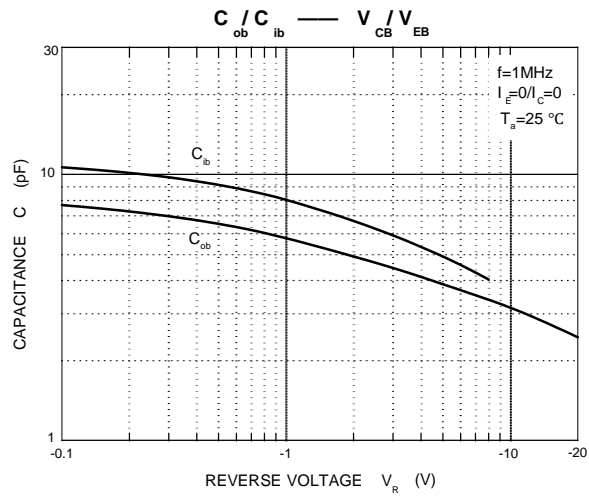


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.450	0.550	
B	0.000	0.004	0.010	0.100	
C	0.037	0.041	0.950	1.050	
D	0.022	0.026	0.550	0.650	
E	0.018REF.		0.450REF.		
F	0.018REF.		0.450REF.		
G	0.011	0.015	0.270	0.370	
H	0.004	0.008	0.100	0.200	
J	0.025REF.		0.635REF.		
K	0.012	0.016	0.300	0.400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