



Micro Commercial Components

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BC868

BC868-10/16/25

0.5W

**NPN Medium
 Power Transistors**

Features

- High current
- Low voltage
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
OFF CHARACTERISTICS				
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=100\mu A_{dc}$, $I_E=0$)	32	---	Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=1mA_{dc}$, $I_B=0$)	20	---	Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ($I_E=100\mu A_{dc}$, $I_C=0$)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=25V$, $I_E=0$)	---	0.1	μA_{dc}
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0V_{dc}$, $I_C=0$)	---	0.1	μA_{dc}

ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=50mA_{dc}$, $V_{CE}=1.0V_{dc}$)	85	375	---
$h_{FE(2)}$	DC Current Gain ($I_C=1A_{dc}$, $V_{CE}=1.0V_{dc}$)	60	---	---
$h_{FE(3)}$	DC Current Gain ($I_C=5mA_{dc}$, $V_{CE}=10V_{dc}$)	50	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=1A_{dc}$, $I_B=100mA_{dc}$)	---	0.5	Vdc
$V_{BE(on)}$	Base-Emitter On Voltage(1) ($I_C=5mA_{dc}$, $V_{CE}=10V_{dc}$)	---	0.62 (Typ)	Vdc
$V_{BE(on)}$	Base-Emitter On Voltage(2) ($I_C=1dc$, $V_{CE}=1V_{dc}$)	---	1	Vdc

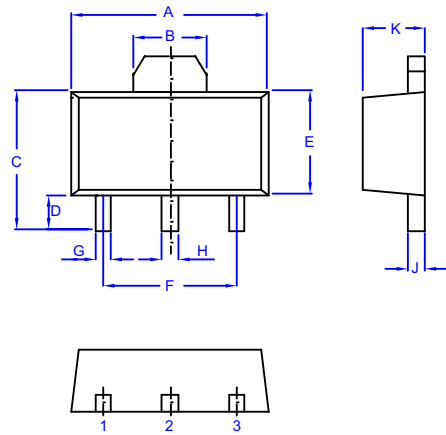
SMALL-SIGNAL CHARACTERISTICS

f_T	Transition Frequency ($I_C=10mA_{dc}$, $V_{CE}=5V_{dc}$, $f=100MHz$)	40	---	MHz
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CLASSIFICATION OF $h_{FE(1)}$

Rank	BC868	BC868-10	BC868-16	BC868-25
Range	85-375	85-160	120-200	160-375
Marking	CAC	CBC	CCC	CDC

SOT-89



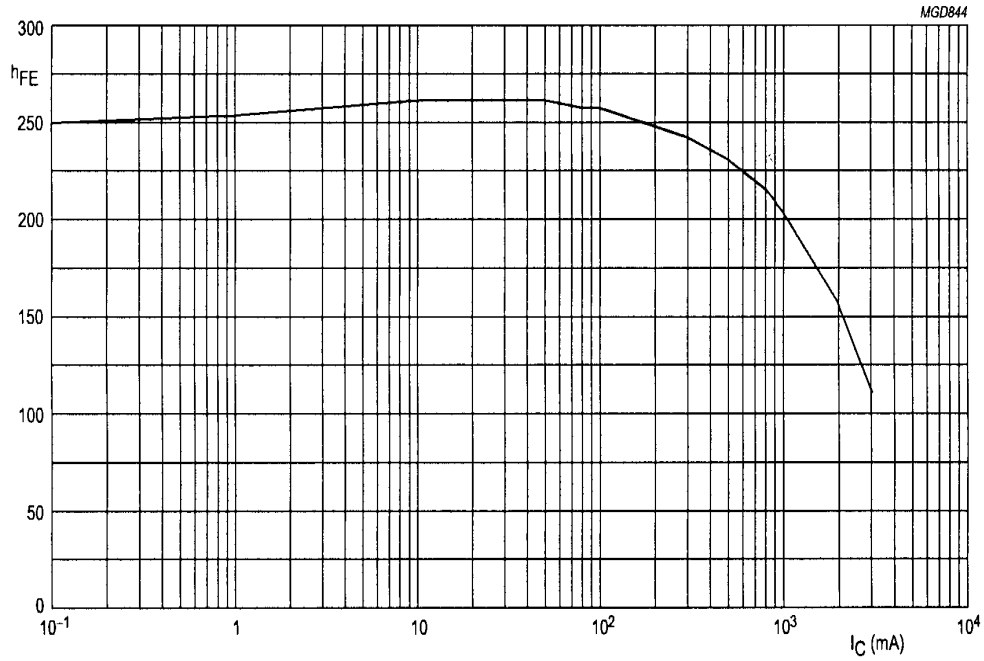
1. BASE
2. COLLECTOR
3. EMITTER

DIM	DIMENSIONS				NOTES
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.173	.181	4.39	4.60	
B	.063	.071	1.60	1.80	
C	.154	.165	3.91	4.19	
D	.031	.039	0.80	1.00	
E	.092	.100	2.34	2.54	
F	.118	----	3.00	----	TYP
G	.013	.019	0.33	0.48	
H	.015	.021	0.38	0.53	
J	.015	.016	0.38	0.41	
K	.055	.063	1.40	1.60	

BC868

MCC

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$V_{CE} = 1\text{ V.}$

DC current gain; typical values.

www.mccsemi.com



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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;1Kpcs/Reel

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