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BC868

Features

- High current (max. 1.0A)
- Low voltage (max. 20V)

NPN Medium Power Transistors

Maximum Ratings

Symbol	Rating	Value	Unit
V_{CEO}	Collector-Emitter Voltage	20	V
V_{CBO}	Collector-Base Voltage	32	V
V_{EBO}	Emitter-Base Voltage	5.0	V
I_C	Collector Current, DC	1.0	A
	Pulse	2.0	A
I_B	Peak Collector Current	200	mA
P_C	Collector Power Dissipation	1.40	W
T_J	Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

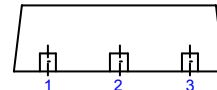
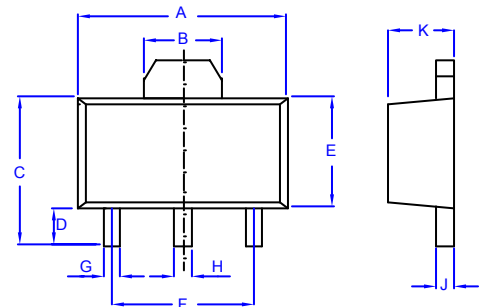
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
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OFF CHARACTERISTICS

I_{CBO}	Collector Cutoff Current ($V_{CB}=25Vdc$) ($V_{CB}=25Vdc, I_E=0, T_J=150°C$)	---	---	100 10	nAdc uAdc
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5.0Vdc, I_C=0$)	---	---	100	nAdc
$h_{FE(1)}$	DC Current Gain ($V_{CE}=10Vdc, I_C=5.0mAdc$) ($V_{CE}=1.0Vdc, I_C=500mAdc$) ($V_{CE}=1.0Vdc, I_C=1.0Adc$)	85 60	---	---	---
$h_{FE(2)}$	DC Current Gain ($V_{CE}=1.0Vdc, I_C=500mAdc$)	100 160	---	250	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=1.0Adc, I_E=100mAdc$)	---	---	500	mVdc
V_{BE}	Base-Emitter Voltage ($I_C=5.0mAdc, V_{CE}=10Vdc$) ($I_C=1.0Adc, V_{CE}=1.0Vdc$)	---	620	---	mVdc Vdc
f_T	Transition Frequency ($V_{CE}=5.0Vdc, I_C=10mAdc,$ $f=100MHz$)	40	---	---	MHz

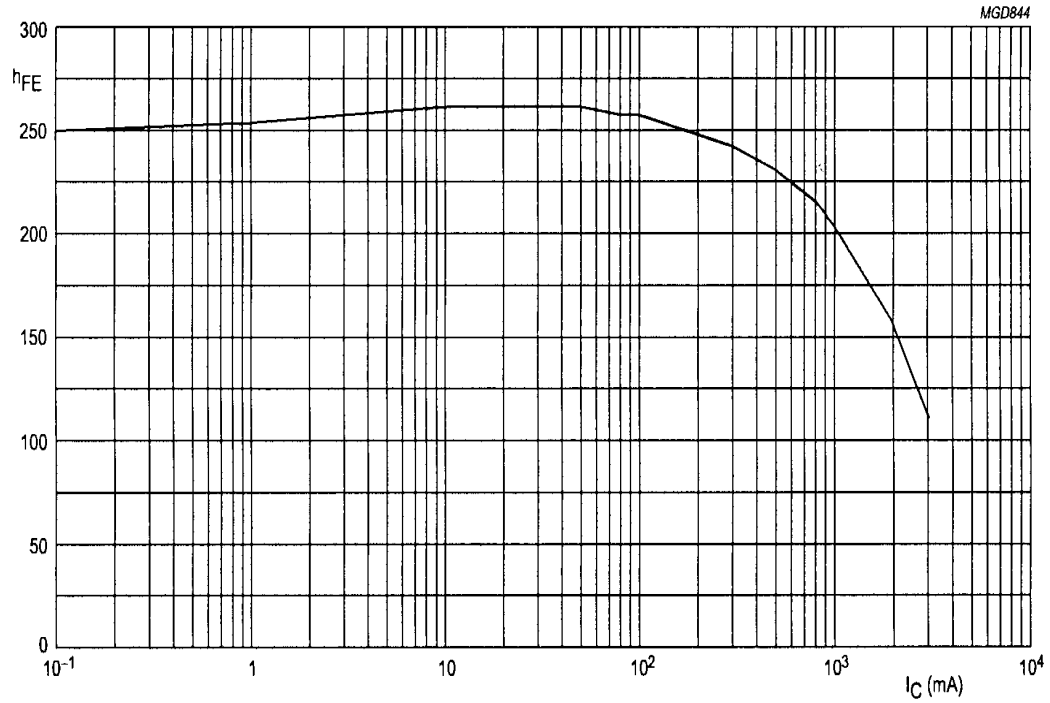
SOT-89



1. EMITTER
2. COLLECTOR
3. BASE

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	

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

DC current gain; typical values.