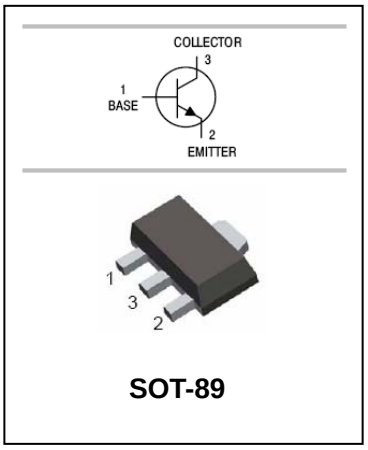
NPN medium power Transistor BC868

FEATURES

- Two current gain selections.
- High current.

Lead-free



SOT-89

APPLICATIONS

- General purpose switching and amplification.
- Power applications such as audio output stages.
- Complememt to BC869.

ORDERING INFORMATION

Type No.	Marking	Package Code
BC868	CAC/CBC/CCC/CDC	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	32	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	DC Collector Current	1	A
I_{CM}	Peak Collector Current	2	A
I_{BM}	Peak base current	200	mA
P_{tot}	Total power dissipation $T_{amb}\leqslant 25℃$	1.35	W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	℃

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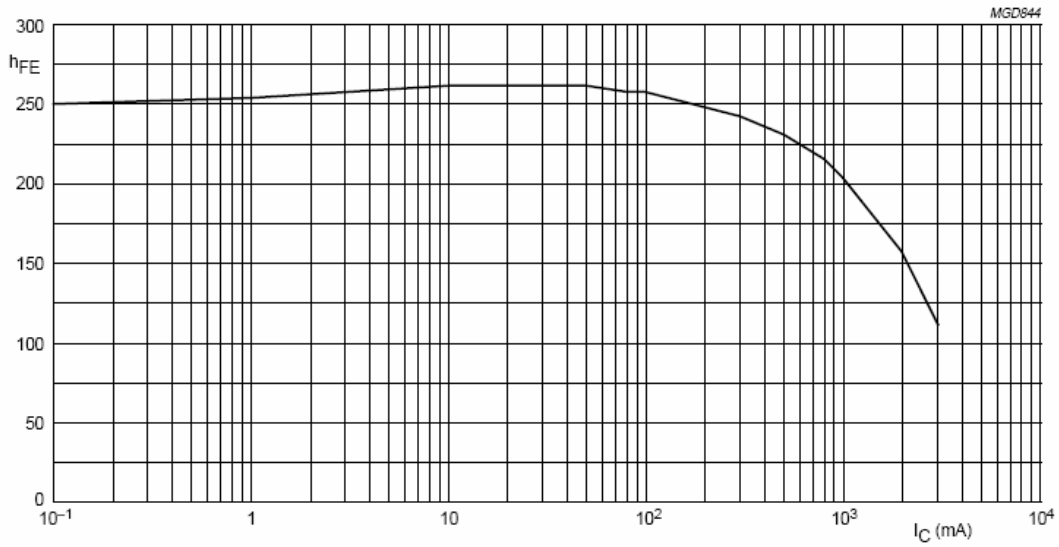
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector cut-off current	I_{CBO}	V_{CB}=25V I_E=0		100	nA
		V_{CB}=25V I_E=0,T_A=150℃		10	μA
Emitter cut-off current	I_{EBO}	V_{CE}=5V I_C=0		100	nA
DC current gain	h_{FE}	V_{CE}=10V I_C=5mA V_{CE}=1V I_C=500mA V_{CE}=1V I_C=1A	50 85 60	375	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=1A I_B=100mA		0.5	V
Base-emitter voltage	V_{BE}	I_C=1A ,V_{CE}=1V		1	V
Transition frequency	f_T	V_{CE}=5V, I_C=10mA, f=100MHz	40		MHz

CLASSIFICATION H_{FE}

Range	85-375	85-160	100-250	160-375
Marking	CAC	CBC	CCC	CDC

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified



V_{CE} = 1 V.

Fig.1 DC current gain; typical values.

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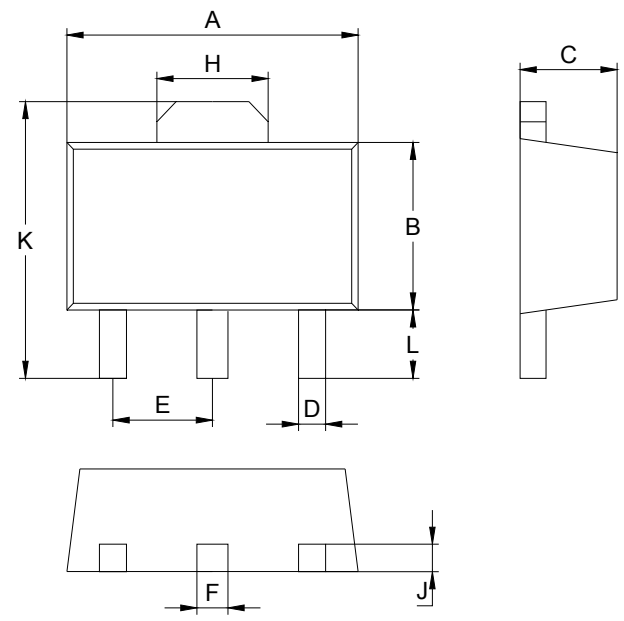
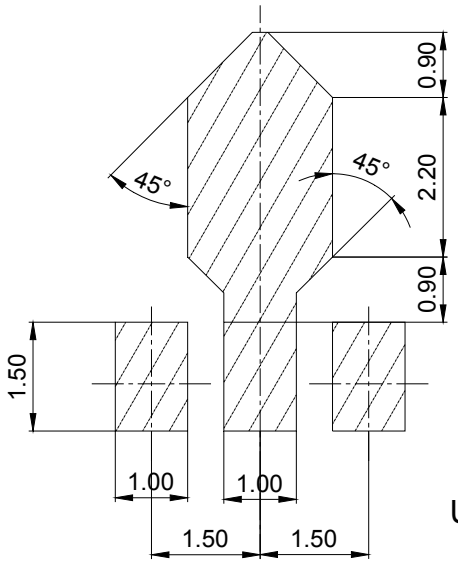
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
BC868	SOT-89	1000/Tape&Reel