

NPN medium power Transistor

BC868

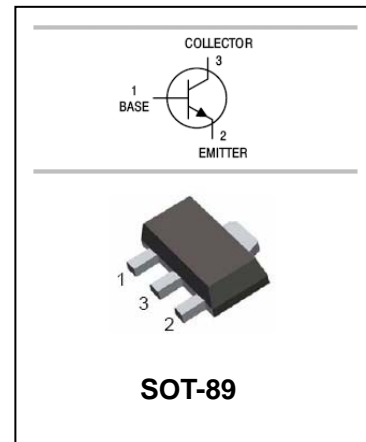
FEATURES

- Two current gain selections.
- High current.



APPLICATIONS

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



ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25°C 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} ≤ 25°C	1.35	W
T _j , T _{stg}	Junction and Storage Temperature	-65 to +150	°C

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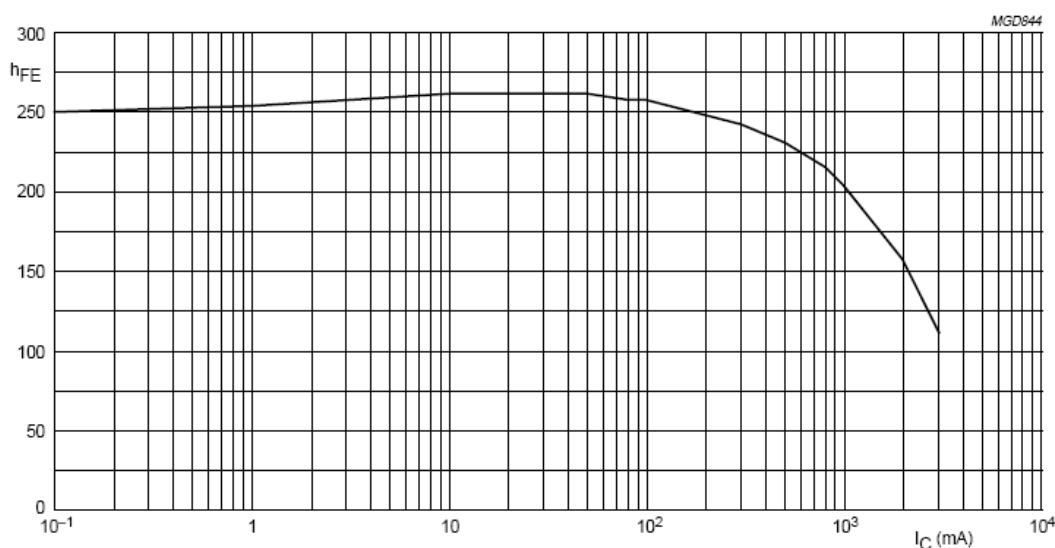
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector cut-off current	I_{CBO}	$V_{CB}=25V, I_E=0$		100	nA
		$V_{CB}=25V, I_E=0, T_A=150^\circ C$		10	μA
Emitter cut-off current	I_{EBO}	$V_{CE}=5V, I_C=0$		100	nA
DC current gain	h_{FE}	$V_{CE}=10V, I_C=5mA$	50	375	
		$V_{CE}=1V, I_C=500mA$	85		
		$V_{CE}=1V, I_C=1A$	60		
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°C unless otherwise specified



$V_{CE} = 1V.$

Fig.1 DC current gain; typical values.

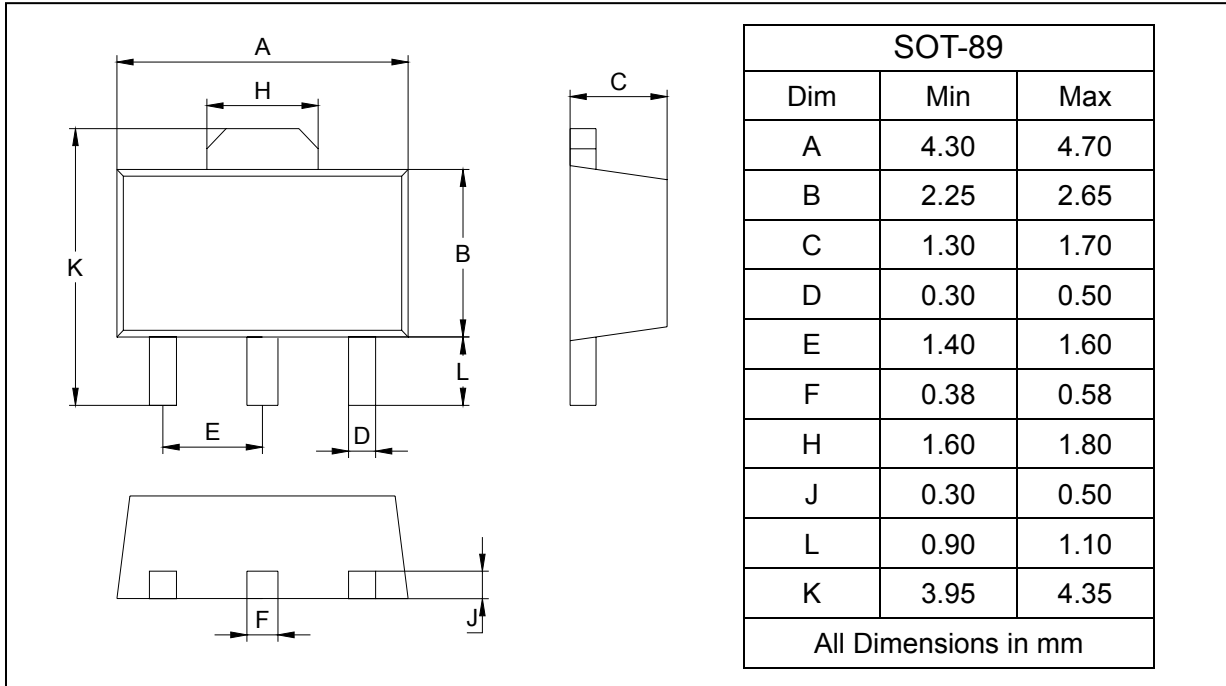
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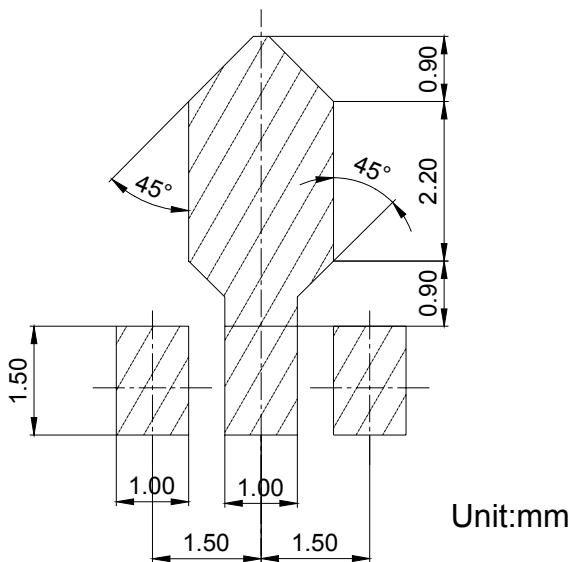
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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