DESCRIPTION

The BC868 is available in SOT-89 package.

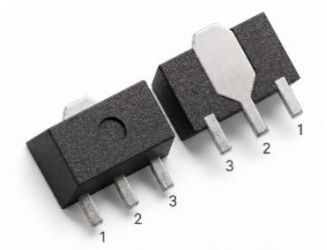
FEATURE

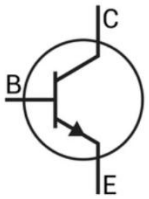
- Low Voltage
- High current
- Compliment the BC869
- Available in SOT89 package

ORDERING INFORMATION

Package Type	Part Number
SOT-89	BC868-10
	BC868-16
	BC868-25
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





PIN#	DESCRIPTION
1	BASE
2	COLLECTOR
3	EMITTER

hFE CLASSIFICATION

Classification	hFE
BC868-10	85 - 160
BC868-16	100 ~ 250
BC868-25	160 ~ 375

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified

V_{CBO}, Collector-Base Voltage	32V
V_{CEO}, Collector-Emitter Voltage	20V
V_{EBO}, Emitter-Base Voltage	5V
I_C, Collector Current	1A
P_C, Collector Power Dissipation	500mW
$R_{\theta JA}$, Thermal Resistance From Junction To Ambient	250°C/W
T_J, Junction Temperature	150°C
T_{STG}, Storage Temperature Range	-55 ~150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

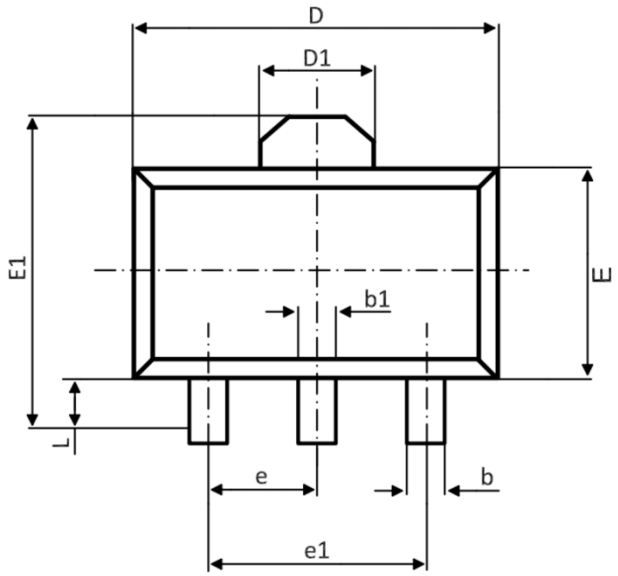
ELECTRICAL CHARACTERISTICS

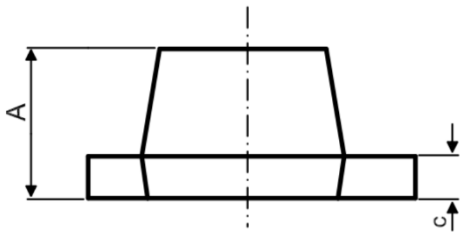
T_A = 25°C, unless otherwise specified

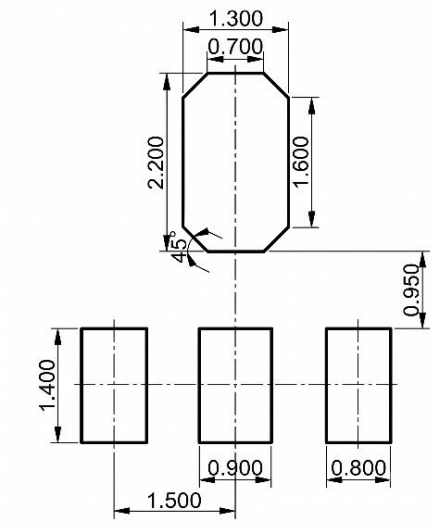
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	32			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=25V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=1V, I_C=1A	85		375	
	$h_{FE(2)}$	V_{CE}=10V, I_C=5mA	60			
	$h_{FE(3)}$	I_C=1A, I_B=100mA	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	V_{CE}=10V, I_C=5mA			0.5	V
Base-emitter voltage	V_{BE1}	V_{CE}=10V, I_C=5mA		0.62		V
	V_{BE2}	V_{CE}=1V, I_C=1A			1	V
Transition frequency	f_T	V_{CE}=5V, I_C=10mA, f=100MHz	40			MHz

PACKAGE INFORMATION

Dimension in SOT-89 Package (Unit: mm)







Symbol	Dimensions In Millimeters	
	Min	Max
A	1.400	1.600
b	0.320	0.520
b1	0.400	0.580
c	0.350	0.440
D	4.400	4.600
D1	1.550 REF.	
E	2.300	2.600
E1	3.940	4.250
e	1.500 TYP.	
e1	3.000 TYP.	
L	0.900	1.200

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