

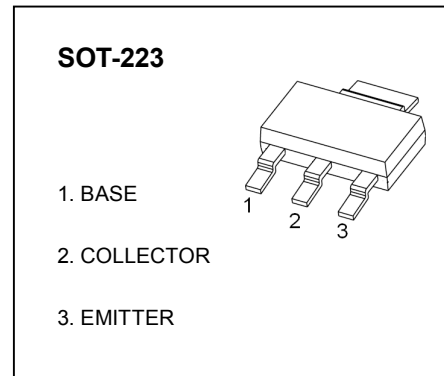
TRANSISTOR (PNP)

FEATURES

- High Current and Low Voltage
- NPN Complement:BCP68

APPLICATIONS

- General Purpose Switching and Amplification
- Power Applications Such as Audio Output Stages



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-32	V
V _{CEO}	Collector-Emitter Voltage	-20	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-1	A
P _C	Collector Power Dissipation	1	W
R _{θJA}	Thermal Resistance From Junction To Ambient	125	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

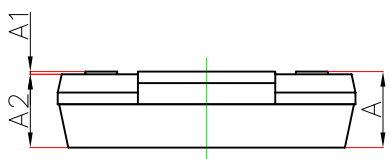
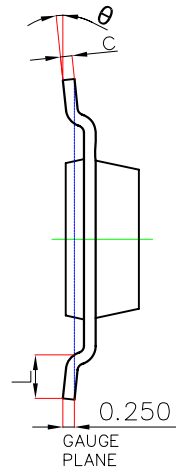
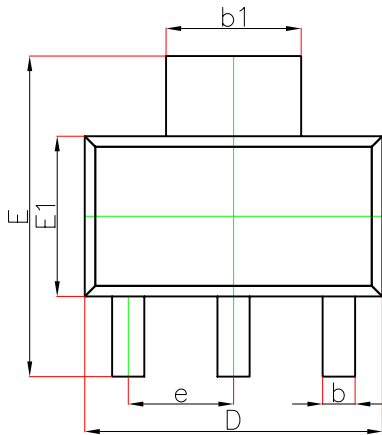
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-0.1mA, 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 =-0.1mA, I _C =0	-5			V
Collector cut-off current	I _{CB0}	V _{CB} =-25V, I _E =0			-100	nA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-100	nA
DC current gain	h _{FE(1)}	V _{CE} =-1V, I _C =-0.5A	85		375	
	h _{FE(2)}	V _{CE} =-1V, I _C =-1A	60			
	h _{FE(3)}	V _{CE} =-10V, I _C =-5mA	50			
	h _{FE(4)}	V _{CE} =-1.8V, I _C =-10mA	140		230	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-1A, I _B =-100mA			-0.5	V
Base-emitter voltage	V _{BE(1)}	V _{CE} =-10V, I _C =-5mA			-0.68	V
	V _{BE(2)}	V _{CE} =-1V, I _C =-1A			-1	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz	40			MHz
Collector output capacitance	C _{ob}	V _{CB} =-5V, I _E =0, f=1MHz		48		pF

CLASSIFICATION OF h_{FE(1)}

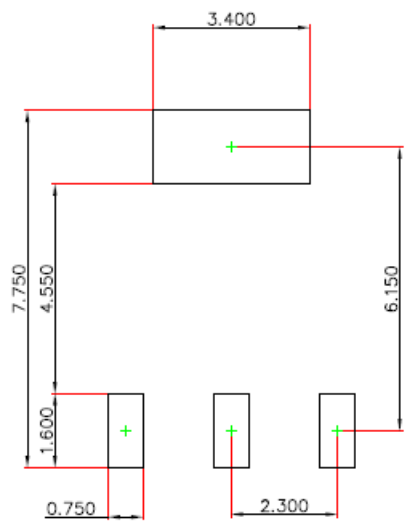
RANK	BCP69-16	BCP69-25
RANGE	100 - 250	160 - 375

SOT-223 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	—	1.800	—	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	—	0.030	—
θ	0°	10°	0°	10°

SOT-223 Suggested Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
 2. General tolerance: ±0.050mm.
 3. The pad layout is for reference purposes only.