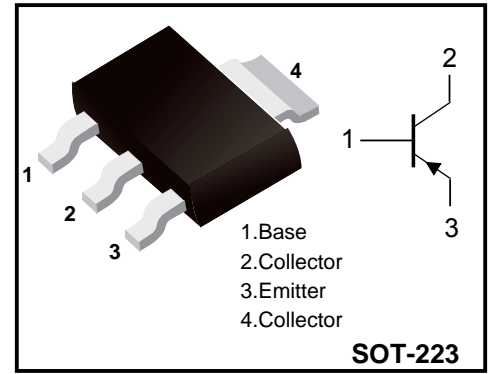


PNP Transistors
FEATURES

- ◆ High current (max. 1 A)
- ◆ Low voltage (max. 20 V)
- ◆ Complements to BCP68


Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-32	V
Collector - Emitter Voltage	V_{CEO}	-20	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_c	-1	A
Collector Current - Pulse	I_{CP}	-2	
Base Current - Pulse	I_{BP}	-0.2	
Collector Power Dissipation	P_c	1.35	W
Thermal Resistance from Junction to Ambient	R_{θJA}	91	°C/W
Thermal Resistance from Junction to Soldering Point	R_{θJS}	10	
Junction Temperature	T_J	150	°C
Storage Temperature range	T_{STG}	-65 to 150	

Classification of hfe(2)

Type	BCP69	BCP69-16	BCP69-25
Range	83-375	100-250	160-375
Marking	BCP69	BCP69-16	BCP69-25

Electrical Characteristics Ta = 25°C

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Collector- base breakdown voltage	I _c = -100 μA, I _E =0	V_{CB0}	-32			V
Collector- emitter breakdown voltage	I _c = -1 mA, I _B =0	V_{CEO}	-20			
Emitter - base breakdown voltage	I _E = -100 μA, I _c =0	V_{EBO}	-5			
Collector-base cut-off current	V _{CB} = -25 V, I _E =0	I_{cBO}			-100	nA
	V _{CB} = -25 V, I _E =0, T _J =150C				-10	uA
Emitter cut-off current	V _{EB} = -5V, I _c =0	I_{EBO}			-100	nA
Collector-emitter saturation voltage	I _c =-1 A, I _B =-100mA	V_{CE(sat)}			-0.5	V
Base - emitter saturation voltage	I _c =-1 A, I _B =-100mA	V_{BE(sat)}			-1.2	
Base - emitter voltage	V _{CE} = -10V, I _c =- 5mA	V_{BE}		-0.62		
	V _{CE} = -1V, I _c = -1 A				-1	
DC current gain	V _{CE} = -10V, I _c = -5mA	h_{FE}	50			
	V _{CE} = -1V, I _c = -500mA		85		375	
	V _{CE} = -1V, I _c = -1 A		60			
Collector capacitance	V _{CB} = -5V, I _E = I _c =0, f=1MHz	C_{ob}		48		pF
Transition frequency	V _{CE} = -5V, I _c = -10mA, f=100MHz	f_T	40			MHz

Typical Characteristics

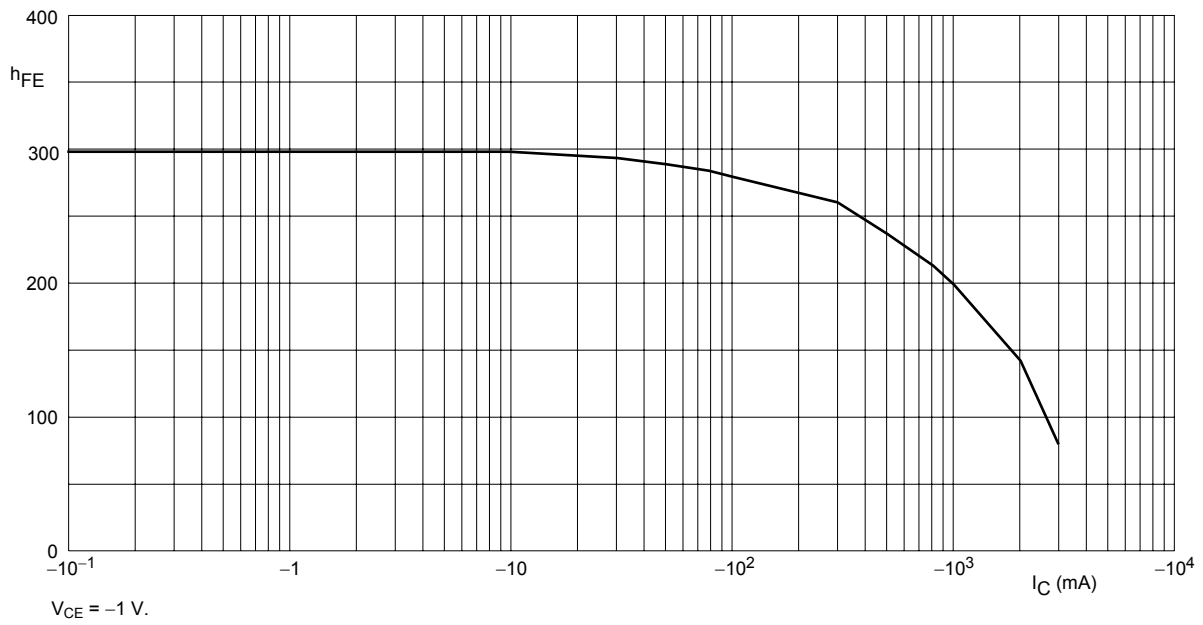


Fig.1 DC current gain; typical values.

Ordering information

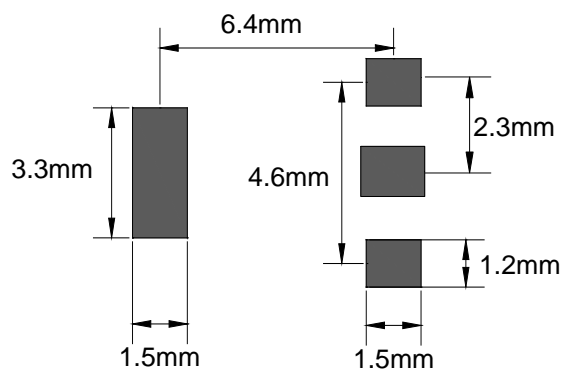
Package	Packing Description	Base Quantity	Packing Quantity
SOT-223	Tape/Reel,7"reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton
	Tape/Reel,13"reel	2500pcs/Reel	5000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-223

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.50	1.80	0.059	0.071
A1	0.00	0.10	0.000	0.004
A2	1.50	1.70	0.059	0.067
b	0.65	0.75	0.026	0.030
c	0.20	0.30	0.008	0.012
D	6.40	6.60	0.252	0.260
D1	2.90	3.10	0.114	0.122
E	3.30	3.70	0.130	0.146
E1	6.85	7.15	0.270	0.281
e	2.20	2.40	0.087	0.094
e1	4.40	4.80	0.173	0.189
L	1.65	1.85	0.065	0.073
L1	0.90	1.15	0.035	0.045

The recommended mounting pad size



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