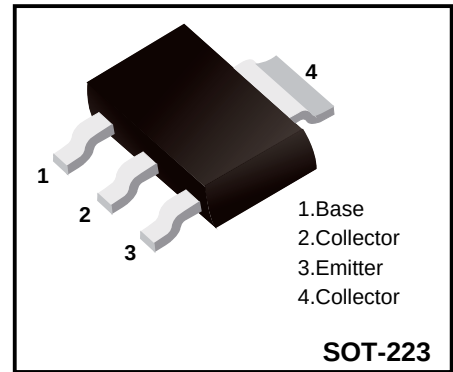


NPN Transistors

Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary to BCP51,BCP52,BCP53



Absolute Maximum Rating (Ta=25℃)

Parameter	Symbol	BCP54	BCP55	BCP56	Unit
Collector - Base Voltage	V _{CB0}	45	60	100	V
Collector - Emitter Voltage	V _{CEO}	45	60	80	
Emitter - Base Voltage	V _{EBO}	5			
Collector Current - Continuous	I _c	1			A
Collector Power Dissipation	P _C	1.5			W
Thermal Resistance Junction to Ambient	R _{θJA}	83.3			°C/W
Junction Temperature	T _J	150			°C
Storage Temperature Range	T _{stg}	-65 to 150			

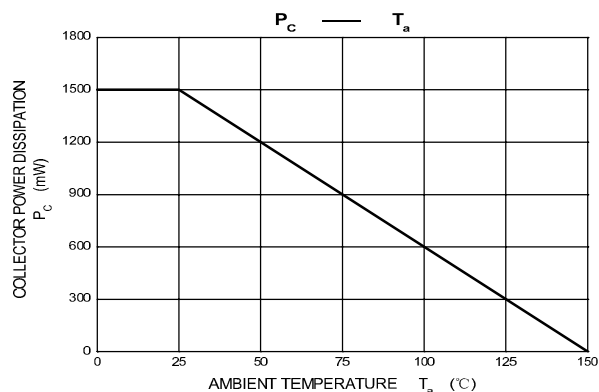
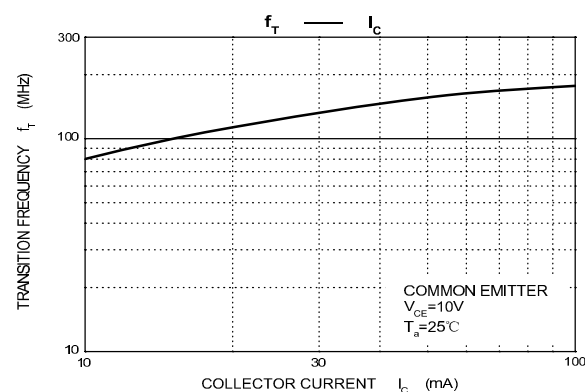
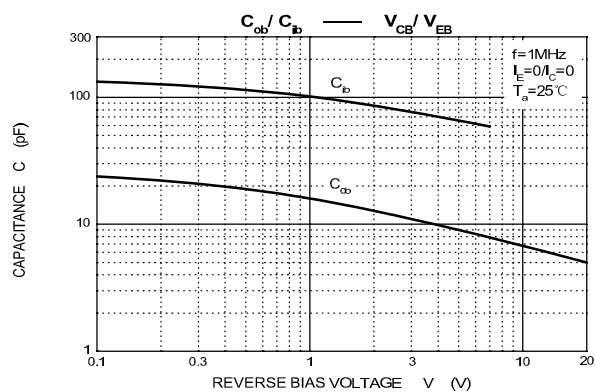
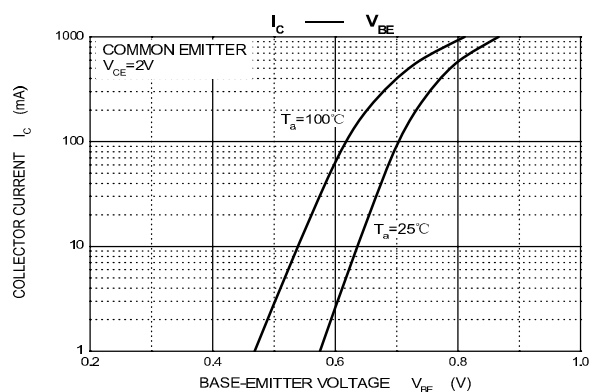
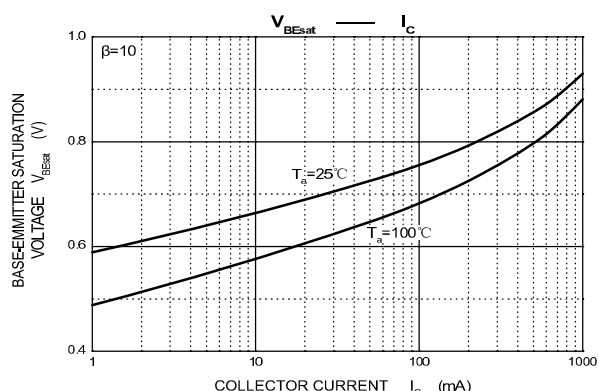
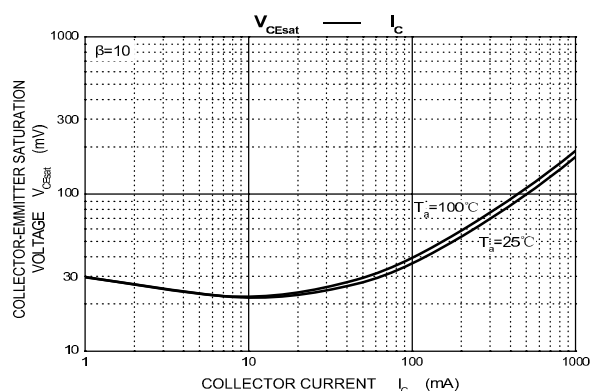
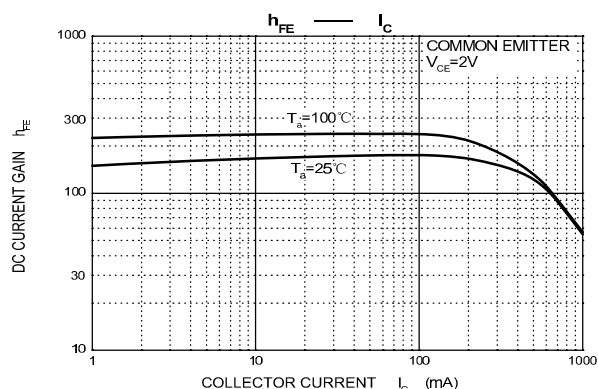
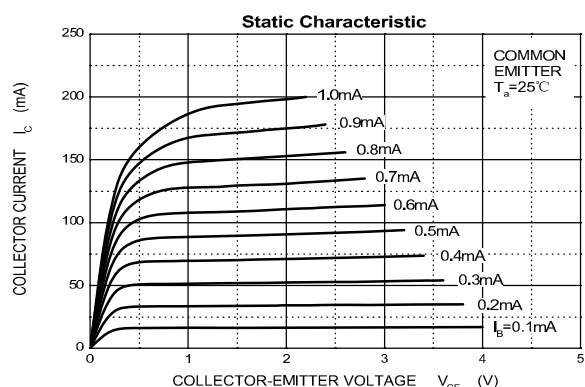
Electrical Characteristics (Ta=25℃)

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	BCP54	V _{CBO}	I _C = 100 μA, I _E = 0	45			V
	BCP55			60			
	BCP56			100			
Collector- emitter breakdown voltage	BCP54	V _{CEO}	I _C = 10 mA, I _B = 0	45			
	BCP55			60			
	BCP56			80			
Emitter - base breakdown voltage		V _{EBO}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	BCP54	I _{CBO}	V _{CB} = 45 V, I _E = 0			0.1	uA
	BCP55		V _{CB} = 60 V, I _E = 0				
	BCP56		V _{CB} = 100 V, I _E = 0				
Emitter cut-off current		I _{EBO}	V _{EB} = 5V, I _C =0			0.1	
Collector-emitter saturation voltage		V _{CE(sat)}	I _C =500 mA, I _B =50mA			0.5	V
Base - emitter saturation voltage		V _{BE(sat)}	I _C =500 mA, I _B =50mA			1.2	
Base-emitter voltage		V _{BE}	V _{CE} = 2V, I _C = 500mA			1	
DC current gain		h _{FE(1)}	V _{CE} = 2V, I _C = 5mA	25			
		h _{FE(2)}	V _{CE} = 2V, I _C = 150mA	63		250	
		h _{FE(3)}	V _{CE} = 2V, I _C = 500mA	25			
Transition frequency		f _T	V _{CE} = 10V, I _C = 50mA, f=100MHz	100			MHz

h_{FE} Classification

Rank	BCP54,BCP55,BCP56	BCP54-10,BCP55-10,BCP56-10	BCP54-16,BCP55-16,BCP56-16
Range	63-250	63-160	100-250
Marking	BCP54,BCP55,BCP56	BCP54-10,BCP55-10,BCP56-10	BCP54-16,BCP55-16,BCP56-16

Typical Characteristics



Ordering information

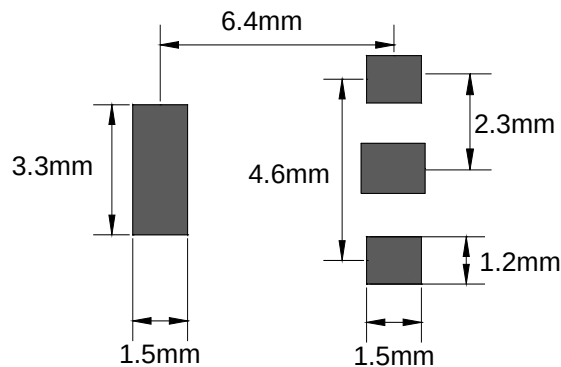
Package	Packing Description	Base Quantity	Packing Quantity
SOT-223	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton
	Tape/Reel, 13" reel	2500pcs/Reel	5000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-223

Dlm	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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