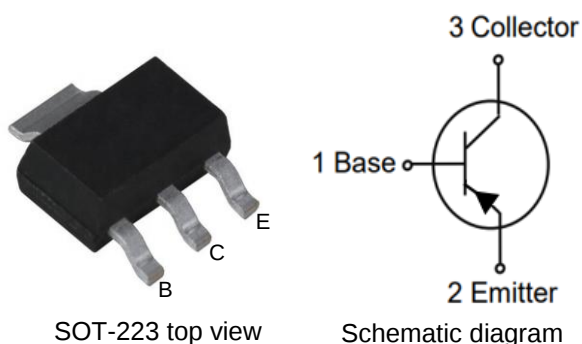


Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCP51/BCP52/BCP53 (PNP)



Maximum Ratings(Ta=25°C unless otherwise noted)

Symbol	Parameter	BCP54	BCP55	BCP56	Unit
V_{CBO}	Collector-Base Voltage	45	60	100	V
V_{CEO}	Collector-Emitter Voltage	45	60	80	V
V_{EBO}	Emitter-Base Voltage	5			V
I_C	Collector Current -Continuous	1			A
I_{CM}	Peak Pulse Collector Current	2			A
I_B	Base Current-Continuous	100			mA
I_{BM}	Peak Pulse Base Current	200			mA
P_C	Collector Power Dissipation	1.5			W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	83.3			°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C

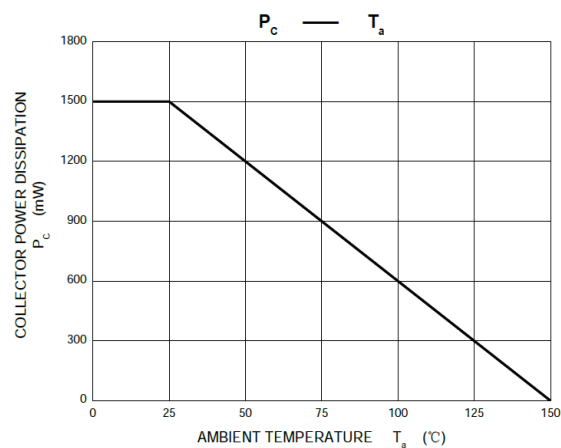
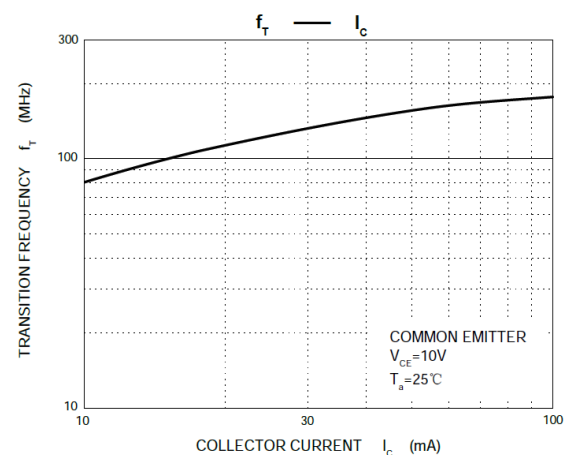
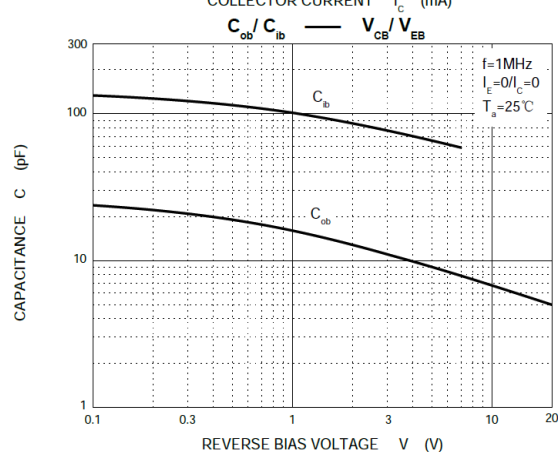
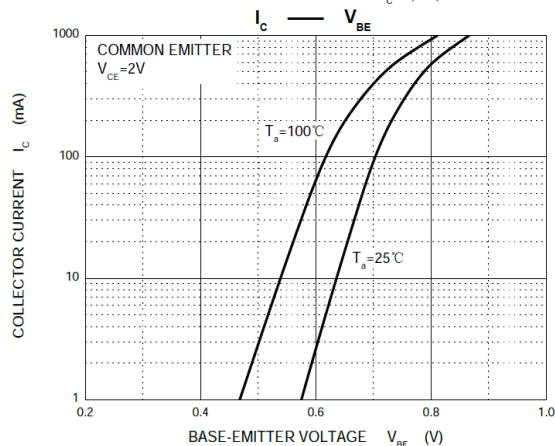
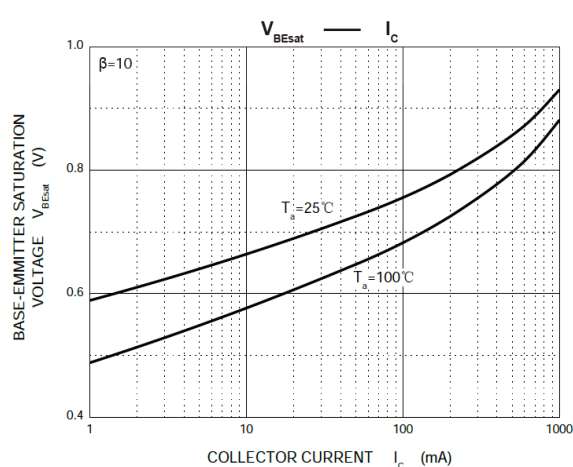
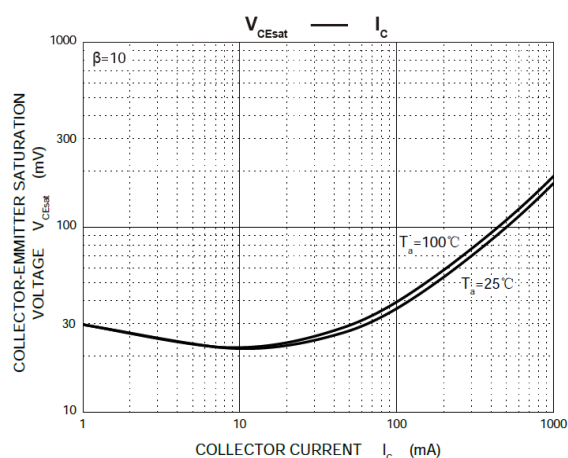
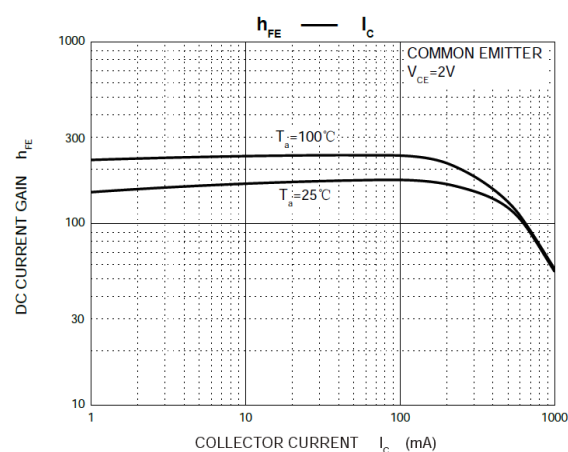
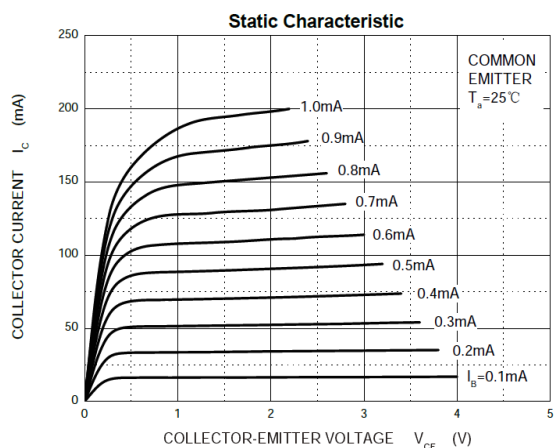
Electrical Characteristics (T_J=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	BCP54	45	--	--	V
		BCP55	60	--	--	
		BCP56	100	--	--	
V _{(BR)CEO}	Collector-emitter breakdown voltage	BCP54	45	--	--	V
		BCP55	60	--	--	
		BCP56	80	--	--	
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =10μA, I _C =0	5	--	--	V
I _{CBO}	Collector cut-off current	V _{CB} =30V, I _E =0	--	--	100	nA
h _{FE1}	DC current gain	V _{CE} =2V, I _C = 5mA	25	--	--	--
h _{FE2}		V _{CE} =2V, I _C = 150mA	63	--	250	
h _{FE3}		V _{CE} =2V, I _C = 500mA	25	--	--	
V _{CE(sat)}	Collector-emitter saturation voltage	I _C =500 mA, I _B = 50mA	--	--	0.5	V
f _T	Transition frequency	V _{CE} =10V, I _C = 50mA, f=100MHz	100	--	--	MHz
V _{BE}	Base-emitter voltage	V _{CE} =2V, I _C = 500mA	--	--	1	V

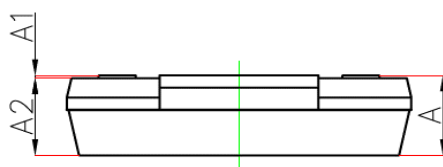
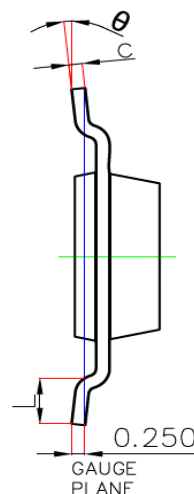
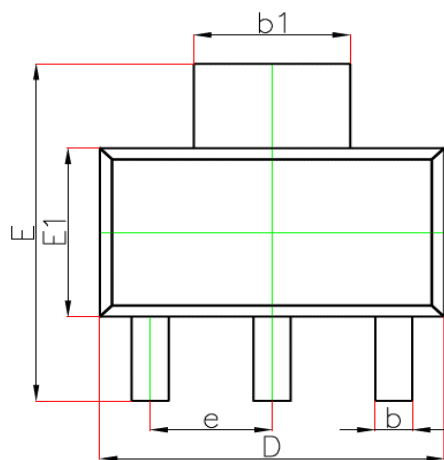
Ordering Information (Example)

Type	Hfe	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BCP54	63-160	BCP54-10	2,500	5,000	35,000	13"reel
	100-250	BCP54-16				
BCP55	63-160	BCP55-10	2,500	5,000	35,000	13"reel
	100-250	BCP55-16				
BCP56	63-160	BCP56-10	2,500	5,000	35,000	13"reel
	100-250	BCP56-16				

Typical Operating Characteristics



SOT-223 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500TYP		0.020TYP	
e1	0.900	1.100	0.035	0.043
L	0.400REF		0.016REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°