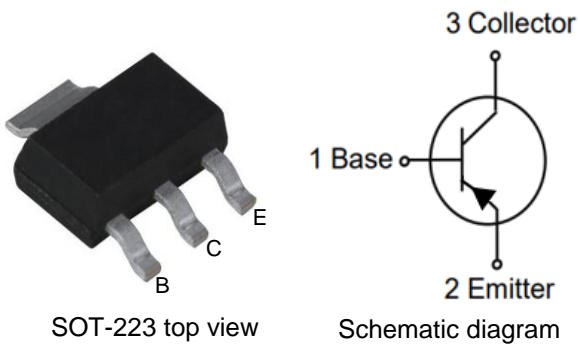


# BCP54/55/56

## 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

# BCP54/55/56

## Electrical Characteristics (T<sub>J</sub>=25°C unless otherwise noted)

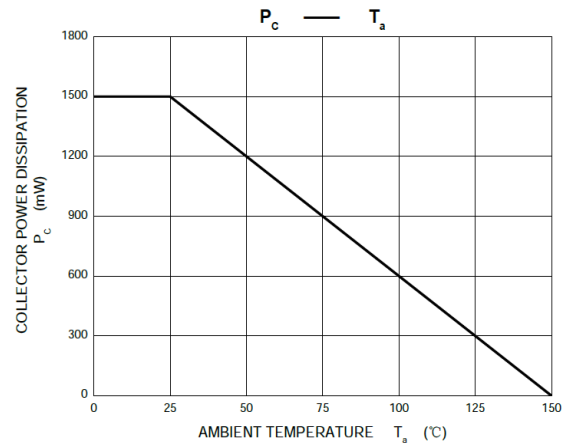
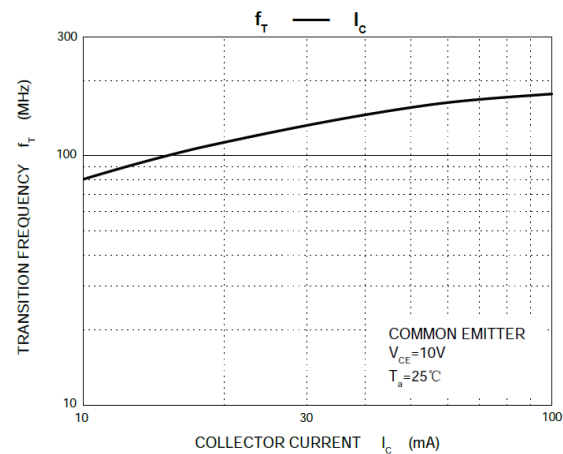
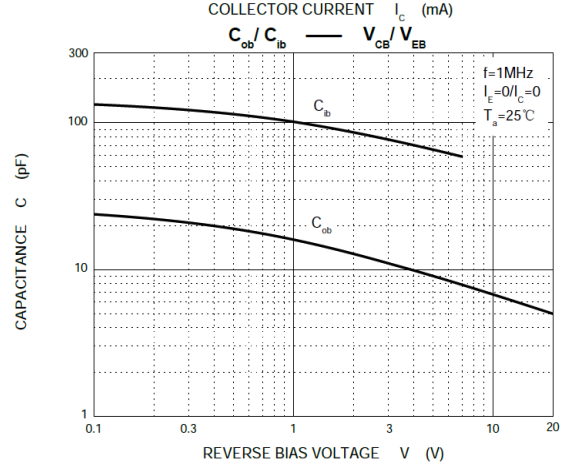
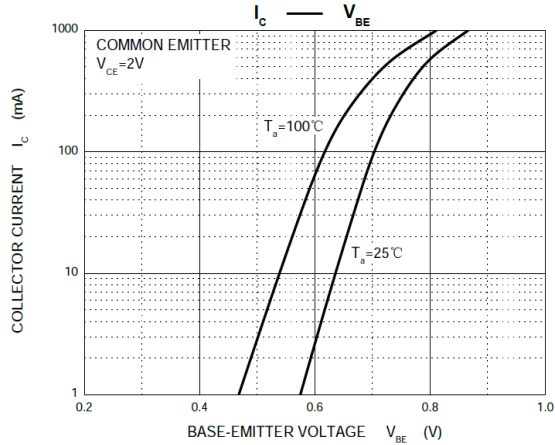
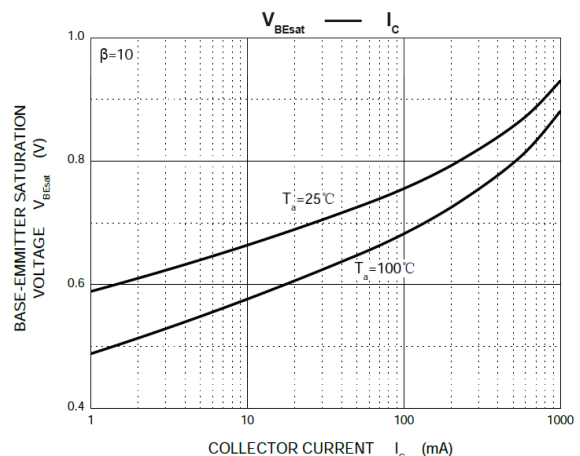
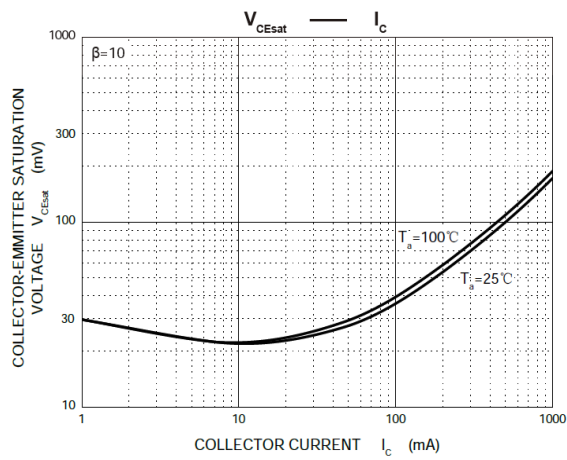
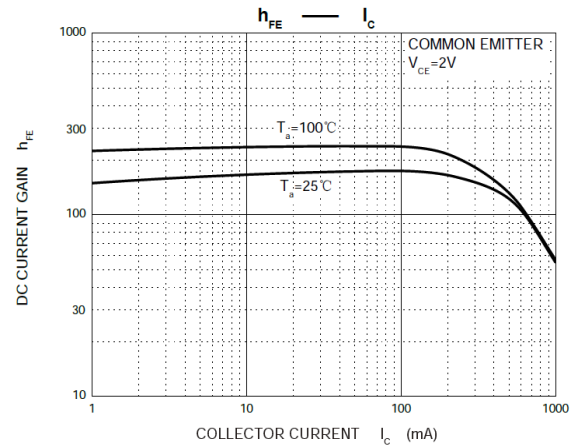
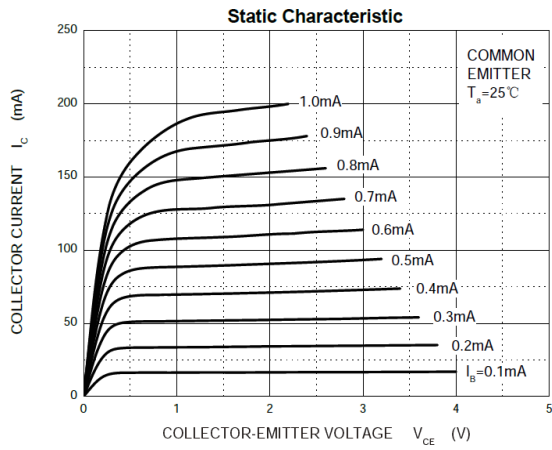
Symbol	Parameter	Condition	Min	Typ	Max	Unit
V <sub>(BR)CBO</sub>	Collector-base breakdown voltage	BCP54	45	--	--	V
		BCP55	60	--	--	
		BCP56	100	--	--	
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	BCP54	45	--	--	V
		BCP55	60	--	--	
		BCP56	80	--	--	
V <sub>(BR)EBO</sub>	Emitter-base breakdown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

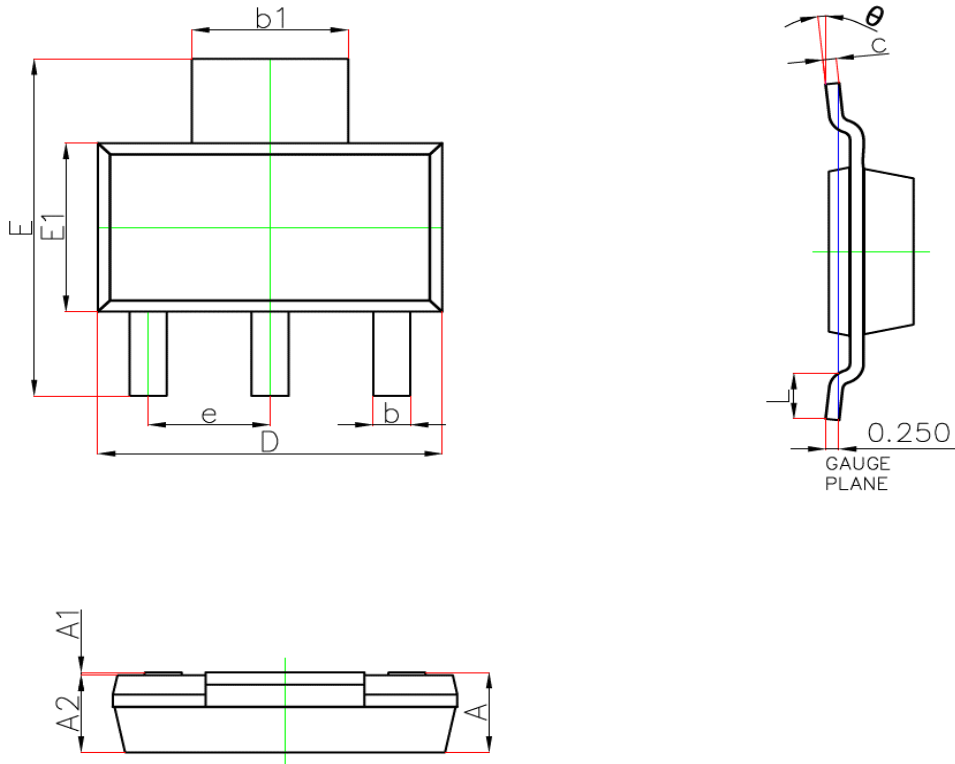
# BCP54/55/56

## Typical Operating Characteristics



# BCP54/55/56

## 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
$\theta$	0°	8°	0°	8°