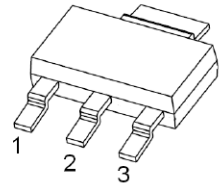


**TRANSISTOR (NPN)****FEATURES**

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

SOT-223

1. BASE
2. COLLECTOR
3. EMITTER

MAXIMUM RATINGS (T_a=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
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C
R _{θJA}	Thermal Resistance Junction to Ambient	83.3			°C/W

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

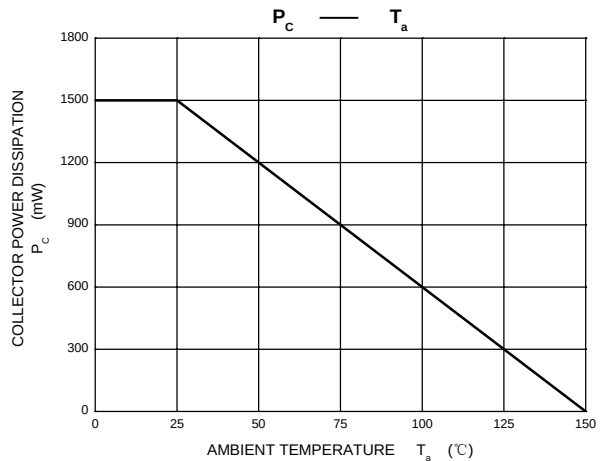
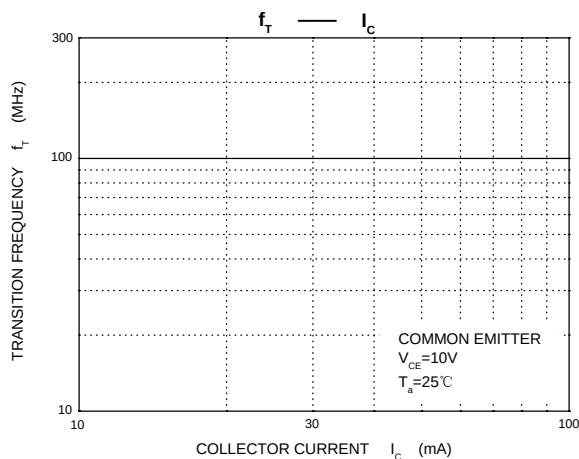
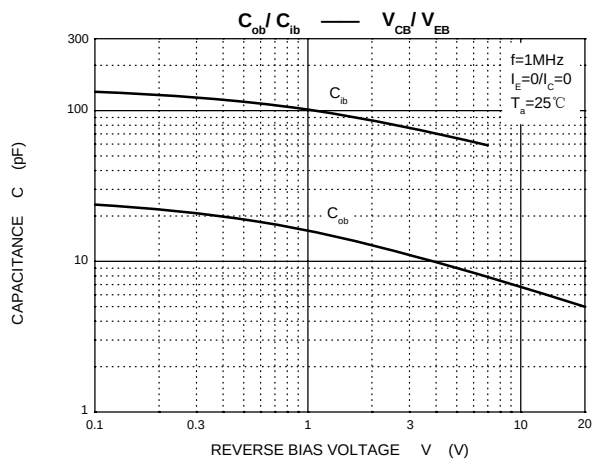
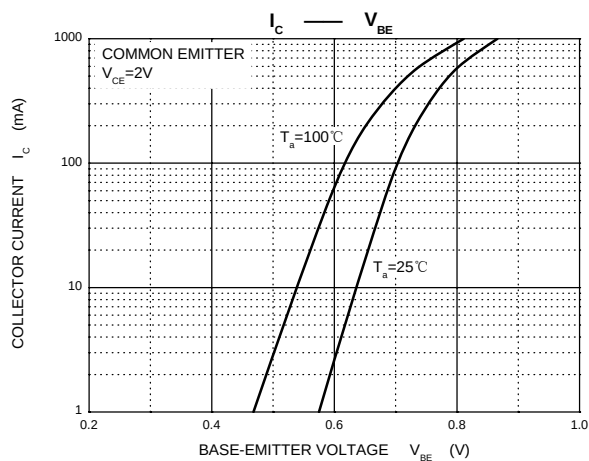
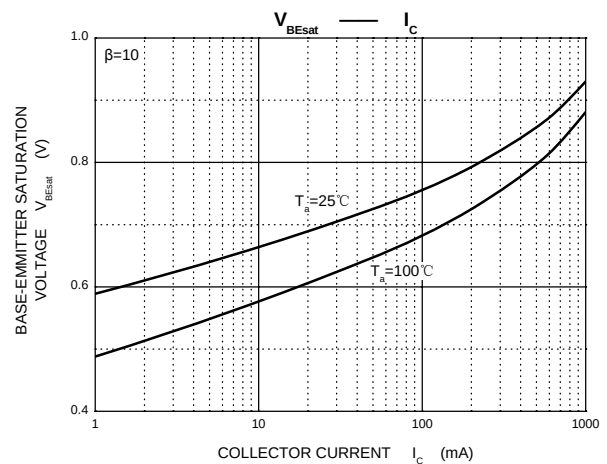
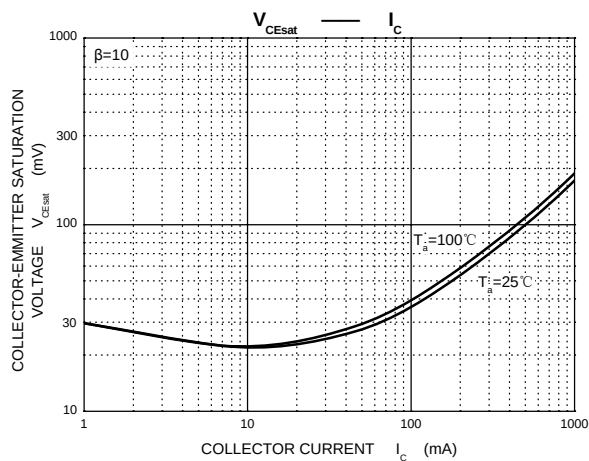
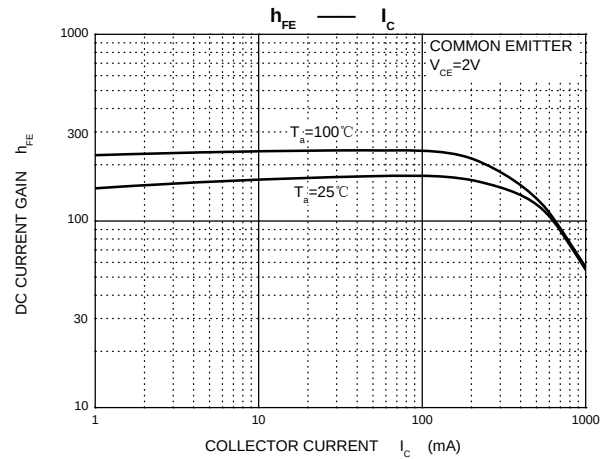
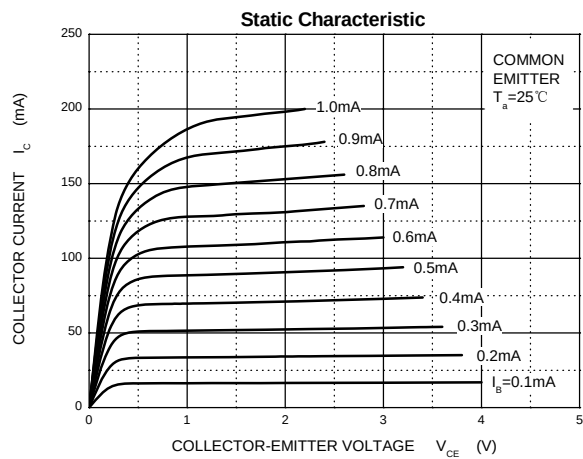
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BCP54 BCP55 BCP56	V _{(BR)CBO} I _C = 0.1mA, I _E =0	45 60 100		V
Collector-emitter breakdown voltage	BCP54 BCP55 BCP56	V _{(BR)CEO} I _C = 10mA, I _B =0	45 60 80		V
Base-emitter breakdown voltage		V _{(BR)EBO} I _E = 10μA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} = 30 V, I _E =0		100	nA
DC current gain	h _{FE(1)}	V _{CE} = 2V, I _C =5mA	25		
	h _{FE(2)}	V _{CE} = 2V, I _C =150m A	63	250	
	h _{FE(3)}	V _{CE} = 2V, I _C =500m A	25		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA		0.5	V
Base-emitter voltage	V _{BE}	V _{CE} =2V, I _C =500m A		1	V
Transition frequency	f _T	V _{CE} =10V, I _C =50mA, f=100MHz	100		MHz

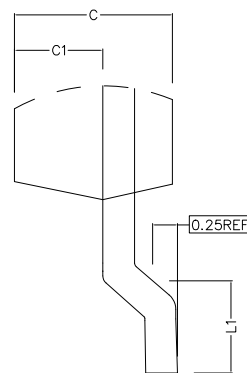
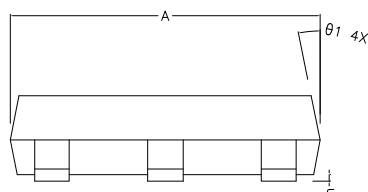
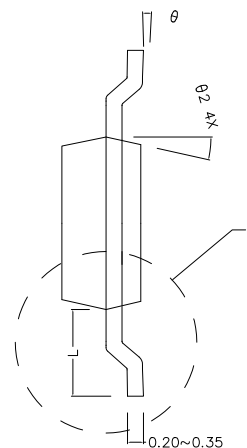
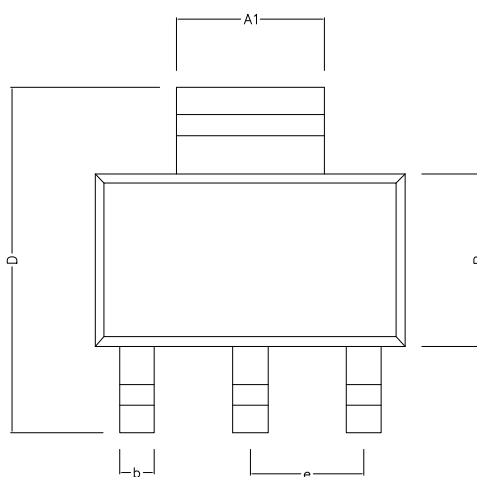
CLASSIFICATION OF h_{FE(2)}

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



Typical Characteristics



SOT-223 Package Outline Dimensions (Units: mm)


DETAIL E

COMMON DIMENSIONS (UNITS OF MEASURE IS mm)			
	MIN	NORMAL	MAX
A	6.400	6.500	6.600
A1	2.900	3.000	3.100
B	3.400	3.500	3.600
C	1.550	1.600	1.650
C1	0.850	0.900	0.950
D	6.800	7.000	7.200
L	1.650	1.750	1.850
L1	0.900	1.000	1.150
b	0.660	0.740	0.820
h	0.020	0.050	0.100
e	2.300TYPE		
θ_1	13° TYPE		
θ_2	13° TYPE		
θ	0° ~ 8°		