

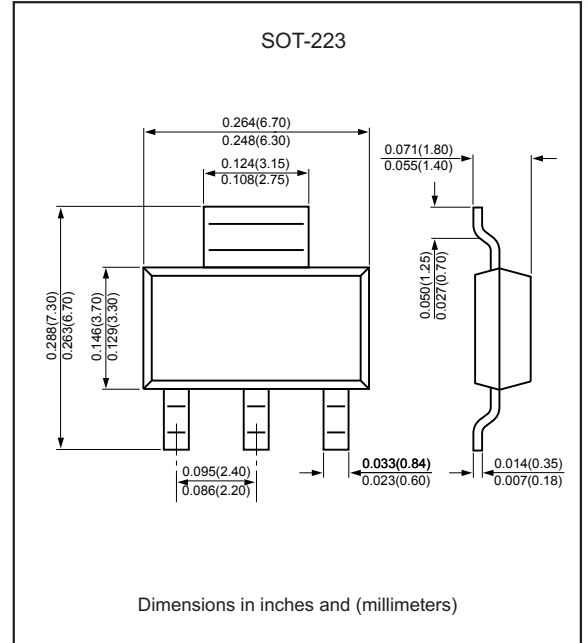
FEATURES

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCP54...BCP56
- Compliant to Halogen-free

FEATURES

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOT-223
- Mounting Position : Any

Package outline



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	BCP51	BCP52	BCP53	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		94		°C/W

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

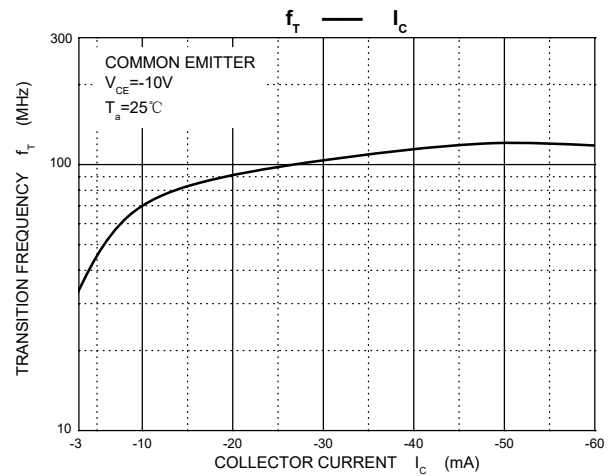
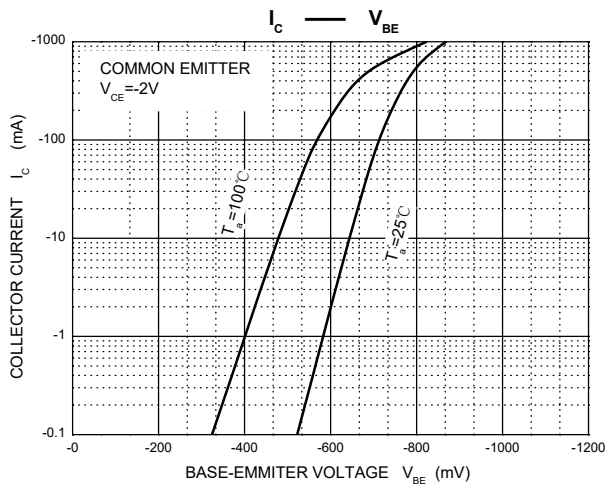
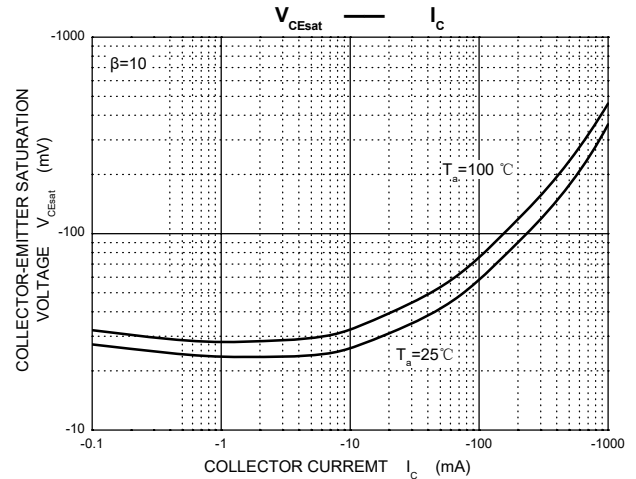
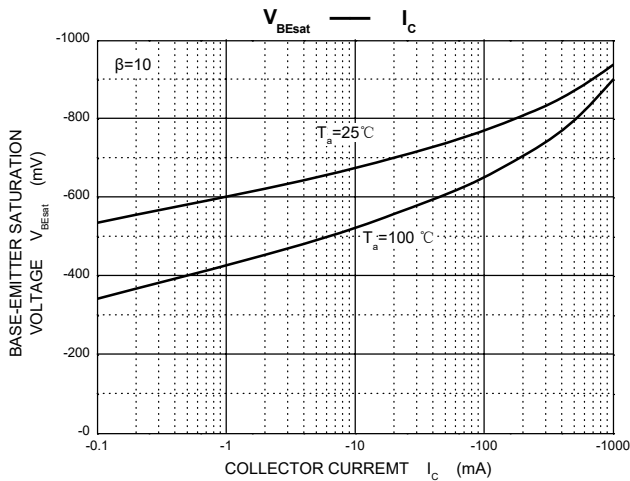
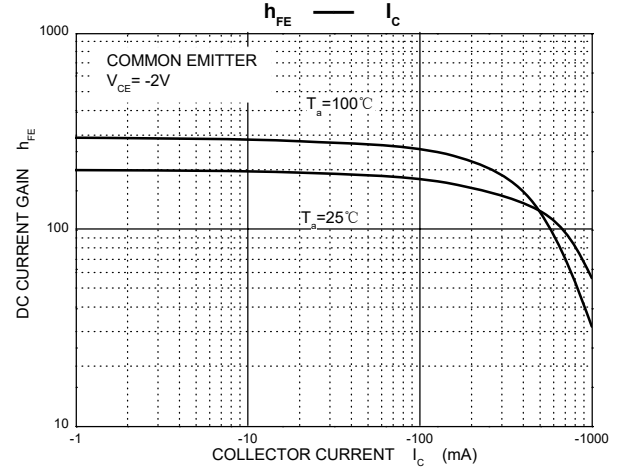
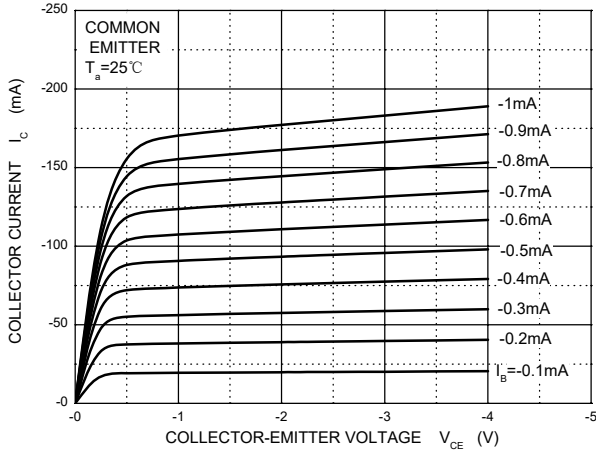
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BCP51 BCP52 BCP53	V _{(BR)CBO}	I _C =-0.1mA, I _E =0	-45 -60 -100		V
Collector-emitter breakdown voltage BCP51 BCP52 BCP53	V _{(BR)CEO}	I _C =-10mA, I _B =0	-45 -60 -80		V
Base-emitter breakdown voltage	V _{(BR)EBO}	I _E =-10μA, I _C =0	-5		V
Collector cut-off current	I _{CBO}	V _{CB} =-30V, 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 =-150mA	63	250	
	h _{FE(3)}	V _{CE} =-2V, I _C =-500mA	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 =-500mA		-1	V
Transition frequency	f _T	V _{CE} =-10V, I _C =-50mA, f=100MHz	100		MHz

CLASSIFICATION OF h_{FE(2)}

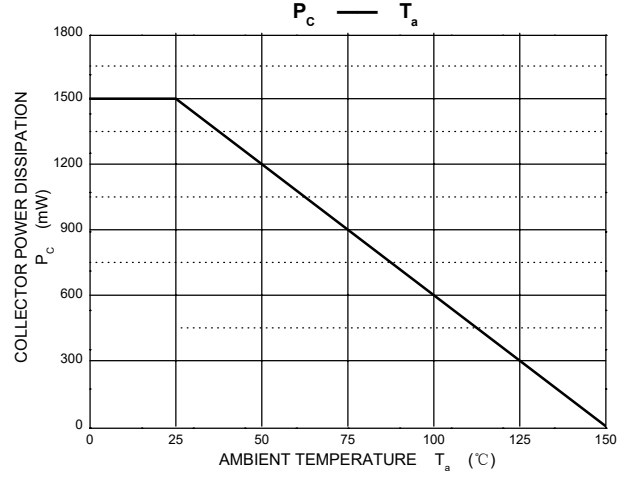
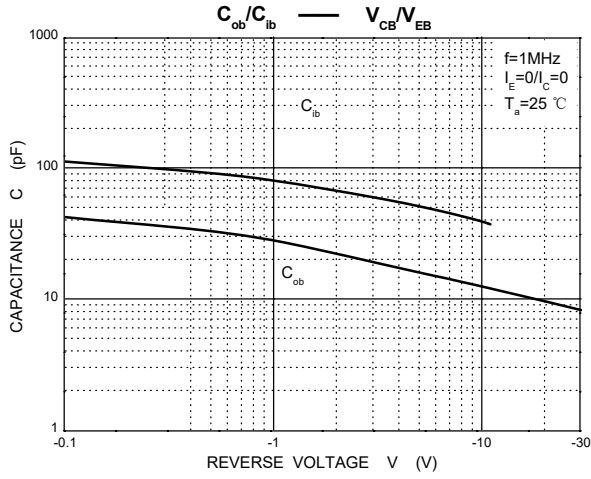
Rank	BCP51-10, BCP52-10, BCP53-10	BCP51-16, BCP52-16, BCP53-16
Range	63-160	100-250

Typical Characteristics

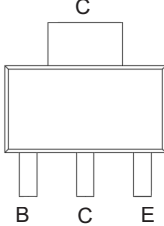
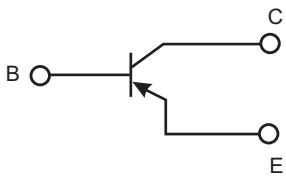
Static Characteristic



Typical Characteristics



Pinning information

Pin	Simplified outline	Symbol
PinB Base PinC Collector PinE Emitter		

Marking

Type number	Marking code
BCP51-10	BCP51-10
BCP52-10	BCP52-10
BCP53-10	BCP53-10
BCP51-16	BCP51-16
BCP52-16	BCP52-16
BCP53-16	BCP53-16

Suggested solder pad layout

