



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCP51 ... BCP53 (PNP)
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

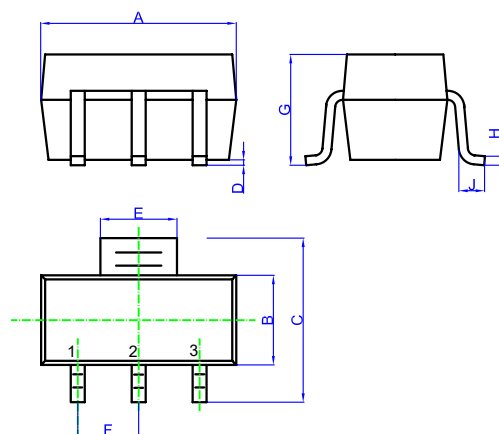
Maximum Ratings @ 25°C Unless Otherwise Specified

Characteristic	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	45	V
BCP54-10/16		60	
BCP55-10/16		100	
Collector-Emitter Voltage	V_{CEO}	45	V
BCP54-10/16		60	
BCP55-10/16		80	
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current-Continuous	I_C	1.0	A
Thermal Resistance Junction to Ambient	R_{thJA}	83.3	°C/W
Collector Power Dissipation	P_C	1.5	W
Operating & Storage Temperature	T_J, T_{STG}	-55~150	°C

BCP54-10/16 BCP55-10/16 BCP56-10/16

NPN Plastic-Encapsulate Transistors

SOT-223



1.BASE
2.COLLECTOR
3.EMITTER

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.248	.264	6.30	6.70	
B	.130	.146	3.30	3.70	
C	.264	.287	6.70	7.30	
D	.001	.004	0.02	0.10	
E	.114	.122	2.90	3.10	
F	.091		2.30		
G	---	.071	---	1.80	
H	.009	.014	0.23	0.35	
J	.030	---	0.75	---	

BCP54-10/16 thru BCP56-10/16

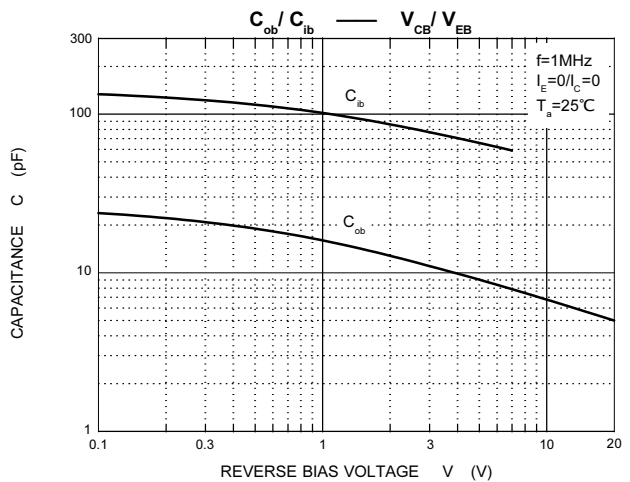
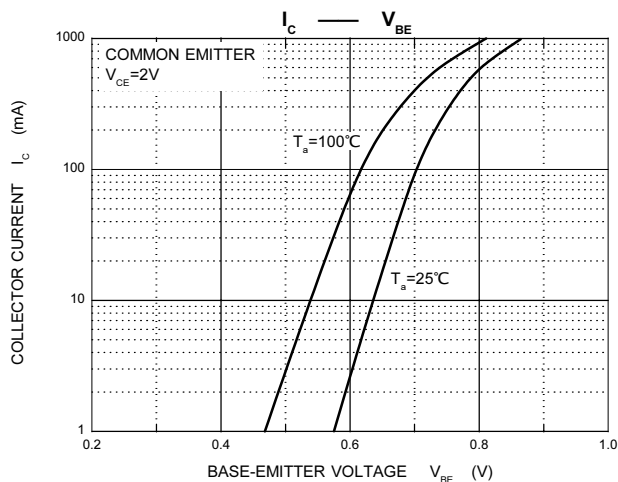
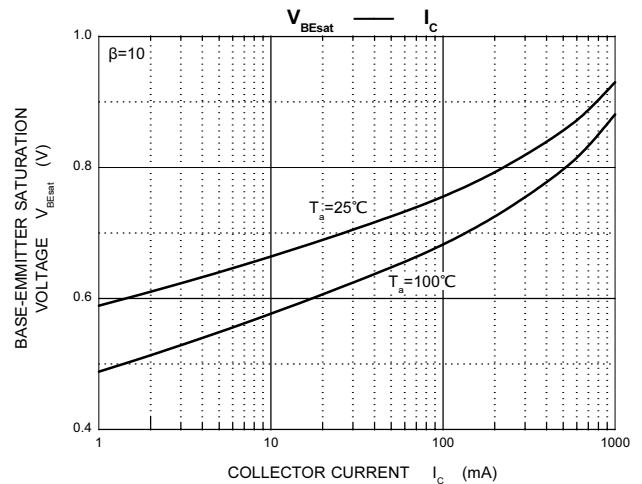
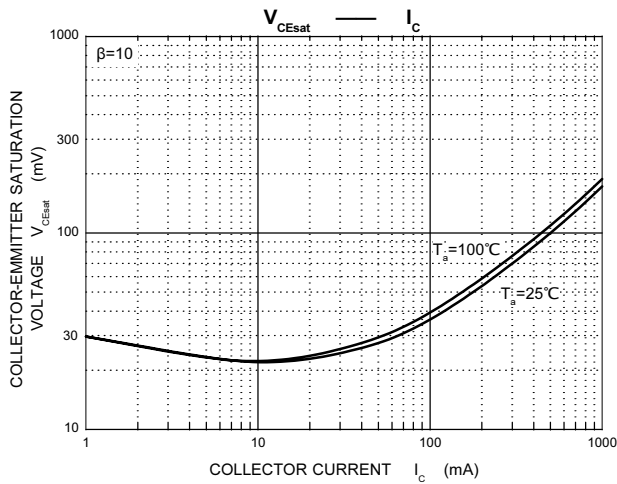
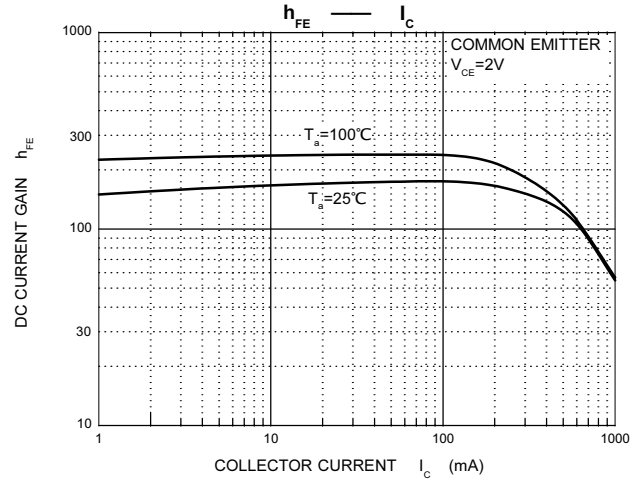
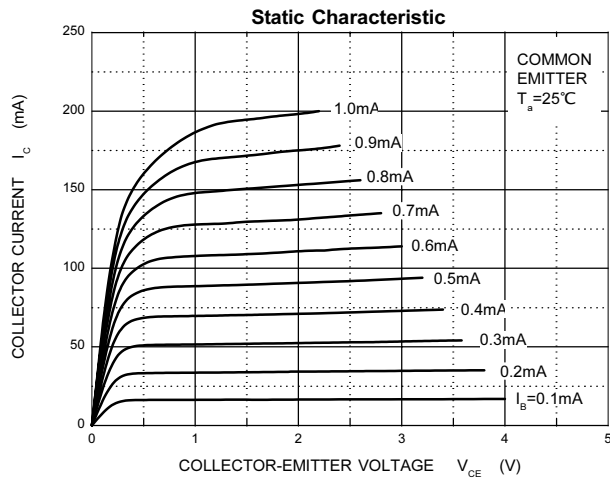
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage BCP54-10/16 BCP55-10/16 BCP56-10/16	V _{(BR)CBO}	I _C = 0.1mA, I _E =0	45 60 100		V
Collector-emitter breakdown voltage BCP54-10/16 BCP55-10/16 BCP56-10/16	V _{(BR)CEO}	I _C = 10mA, I _B =0	45 60 80		V
Base-emitter breakdown voltage	V _{(BR)EBO}	I _C = 10μA, I _E =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

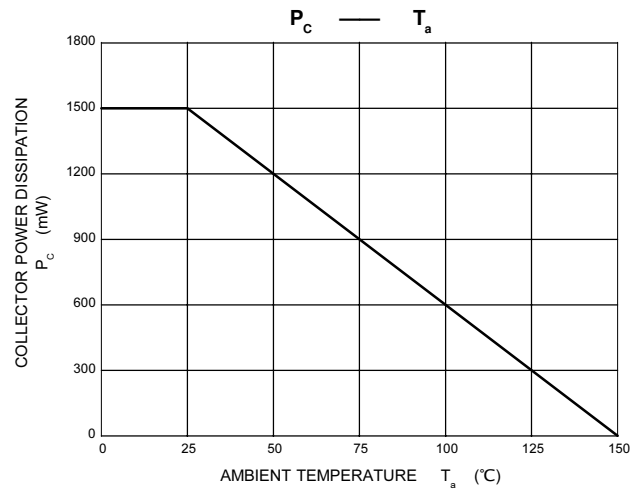
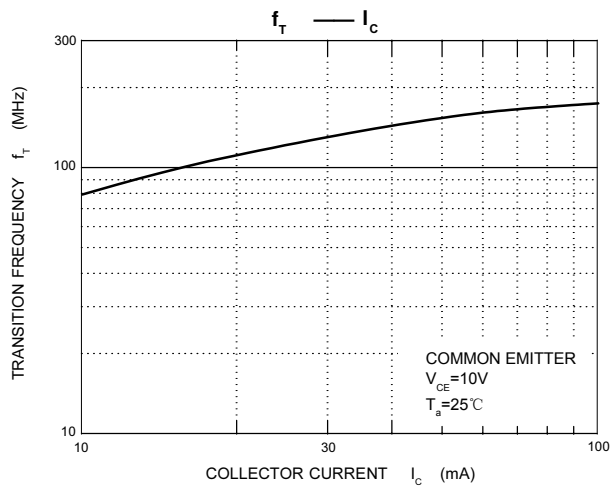
BCP54-10/16 thru BCP56-10/16



f — I

P — T

BCP54-10/16 thru BCP56-10/16



Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 2.5 Kpcs/ Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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