



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

NPN
Plastic-Encapsulate
Transistors

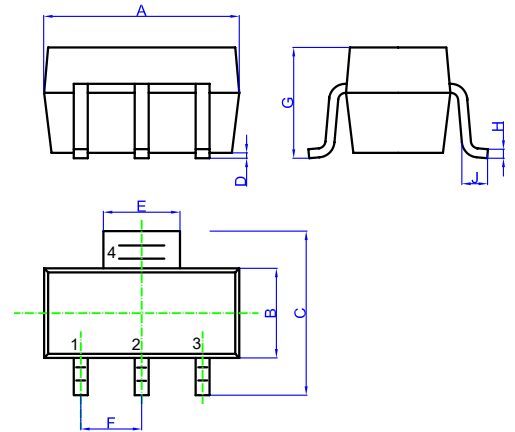
Features

- 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

Charateristic	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	
BCP56-10/16			
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

SOT-223



- 1.BASE
- 2.COLLECTOR
- 3.EMITTER
- 4.COLLECTOR

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

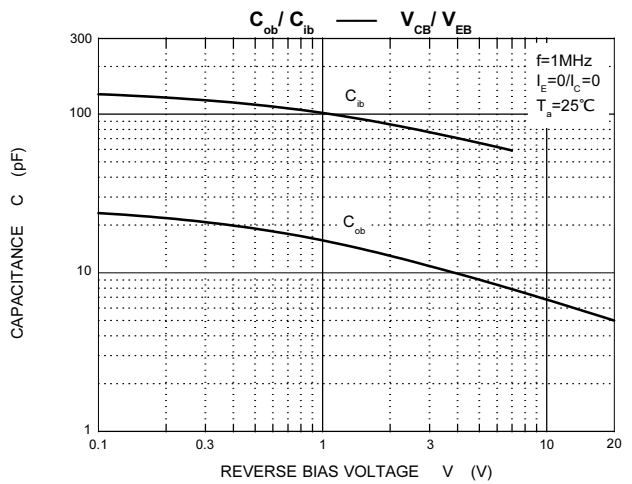
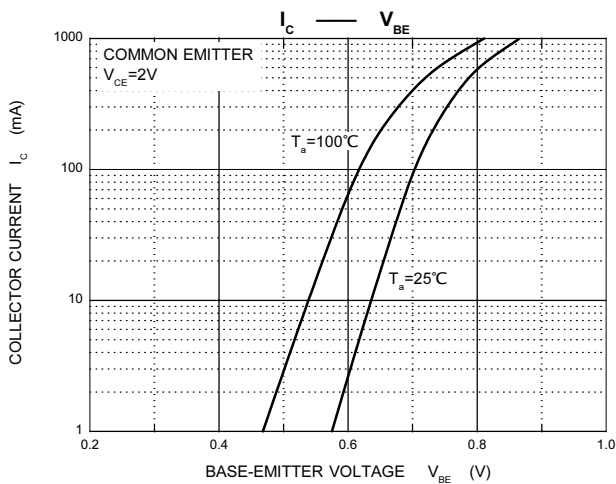
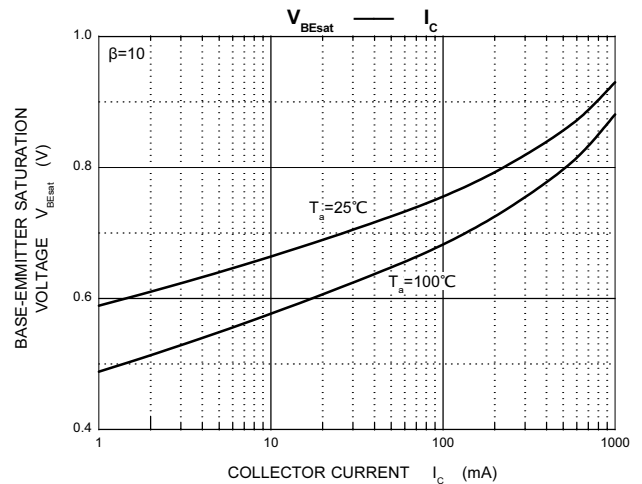
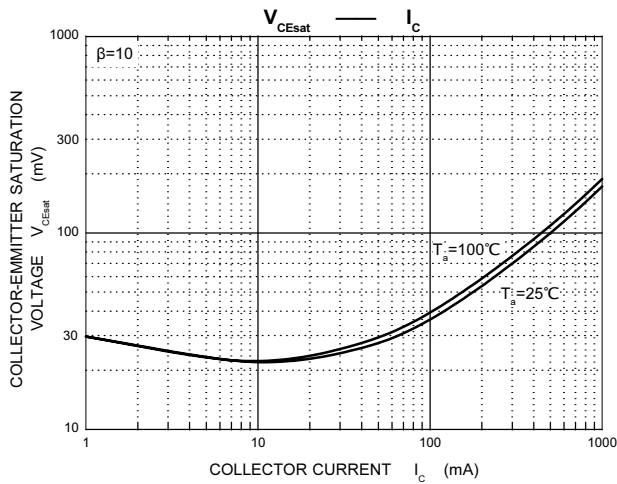
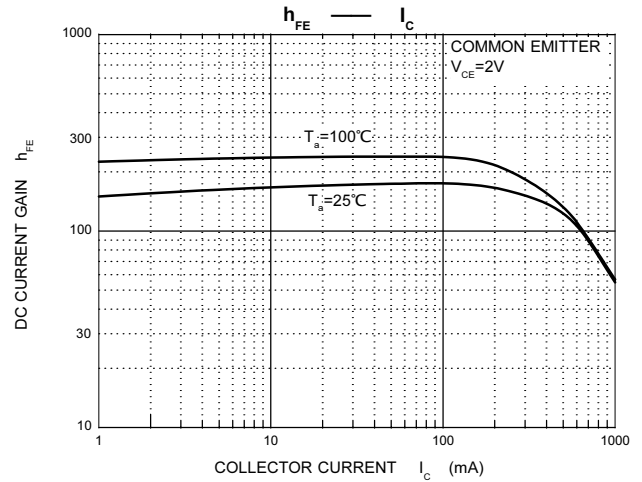
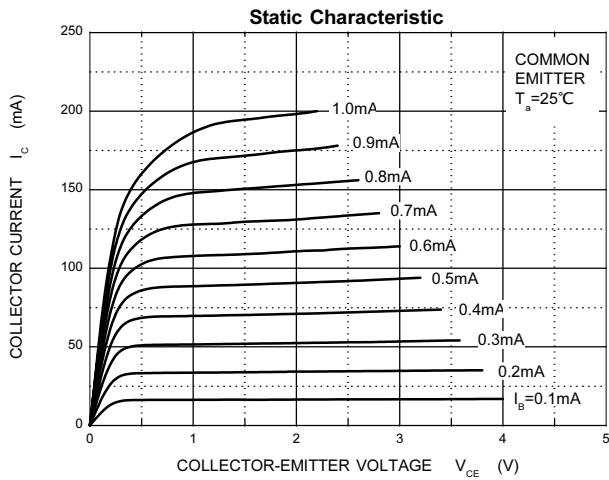
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

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		$V_{(BR)EBO}$ $I_E = 10\mu A, I_C = 0$	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	BCP54-10, BCP55-10, BCP56-10	BCP54-16, BCP55-16, BCP56-16
Range	63-160	100-250
Marking	BCP54-10, BCP55-10, BCP56-10	BCP54-16, BCP55-16, BCP56-16

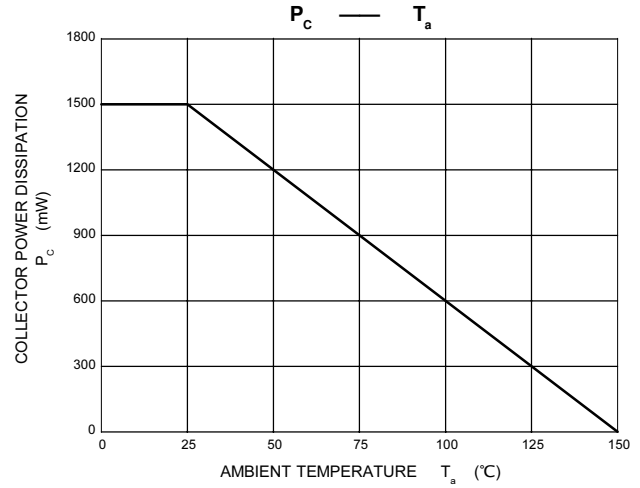
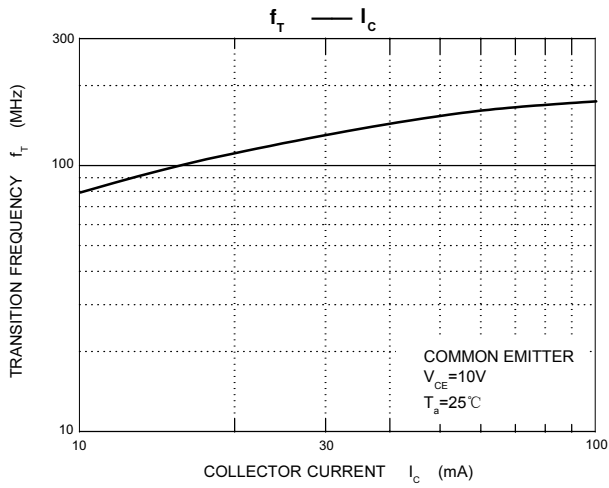
BCP54-10/16 thru BCP56-10/16



f — I

P — T

BCP54-10/16 thru BCP56-10/16





Micro Commercial Components

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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