



Micro Commercial Components

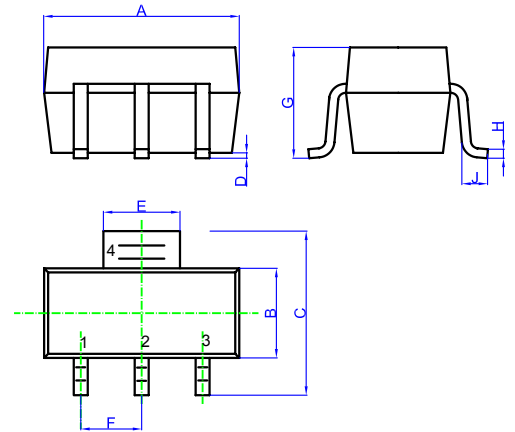


Micro Commercial Components
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BCP51-10/16
BCP52-10/16
BCP53-10/16

PNP
Plastic-Encapsulate
Transistors

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	---	

Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCP54 ... BCP56 (NPN)
- 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
BCP51-10/16		-60	
BCP52-10/16		-100	
Collector-Emitter Voltage	V_{CEO}	-45	V
BCP51-10/16		-60	
BCP52-10/16		-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

BCP51-10/16 thru BCP53-10/16

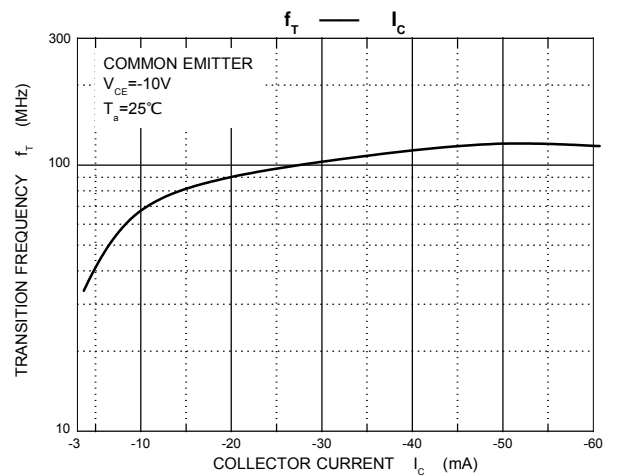
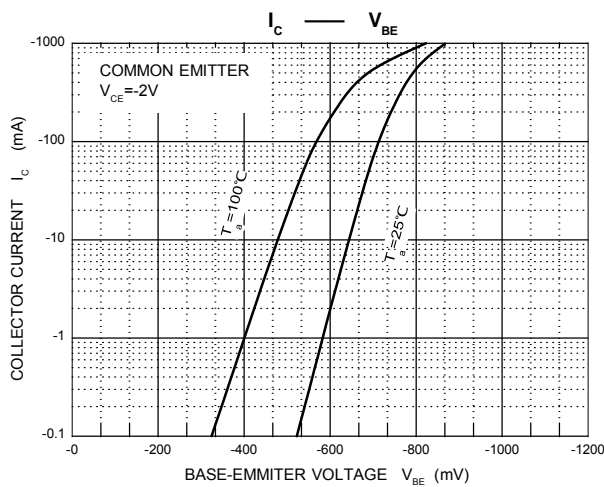
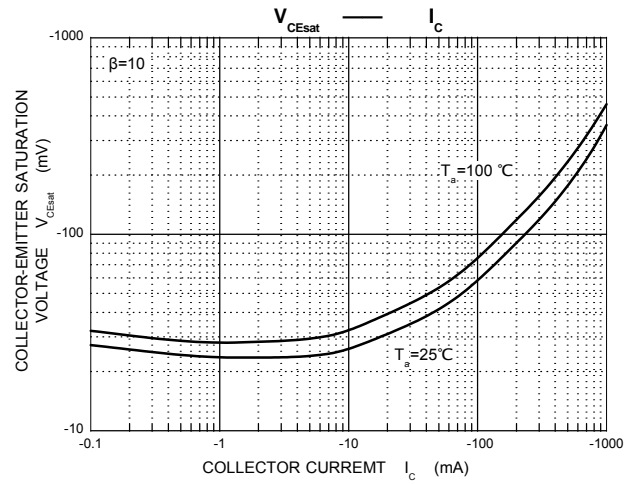
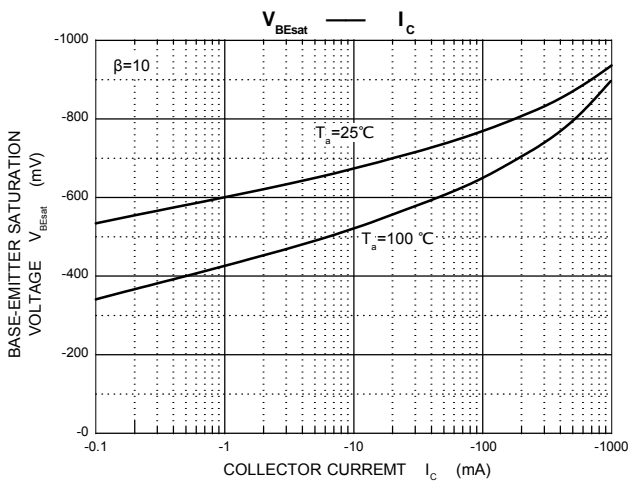
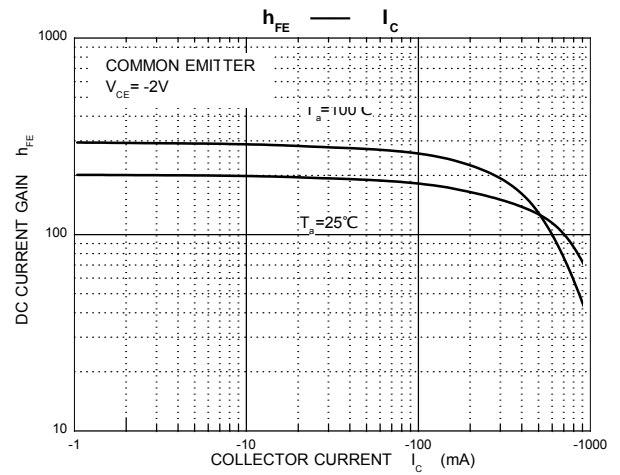
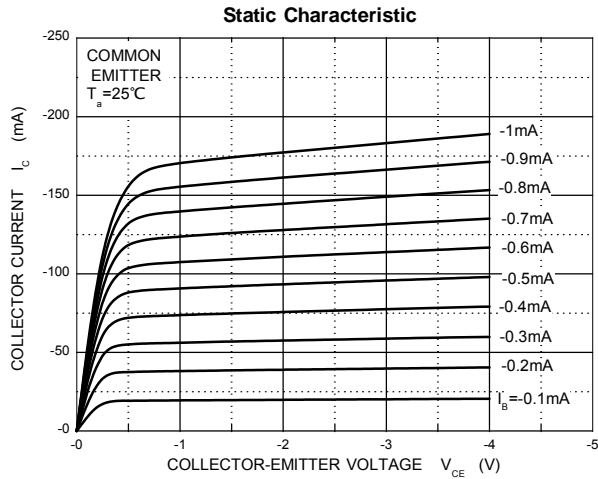
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BCP51-10/16 BCP52-10/16 BCP53-10/16	$V_{(BR)CBO}$	$I_C=-0.1mA, I_E=0$	-45 -60 -100	V
Collector-emitter breakdown voltage	BCP51-10/16 BCP52-10/16 BCP53-10/16	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-45 -60 -80	V
Base-emitter breakdown voltage		$V_{(BR)EBO}$	$I_C=-10\mu A, I_E=0$	-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

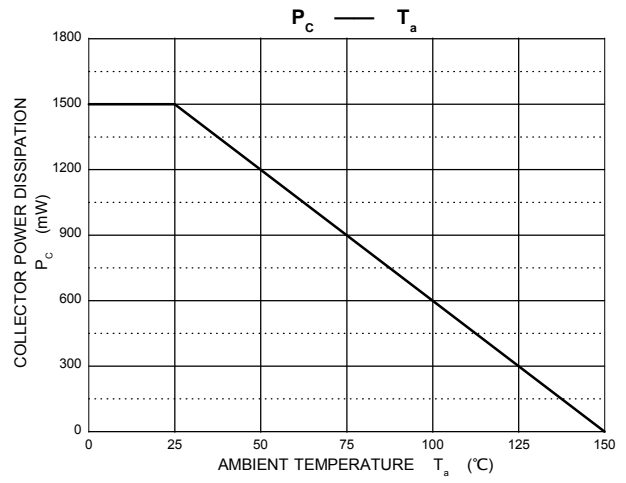
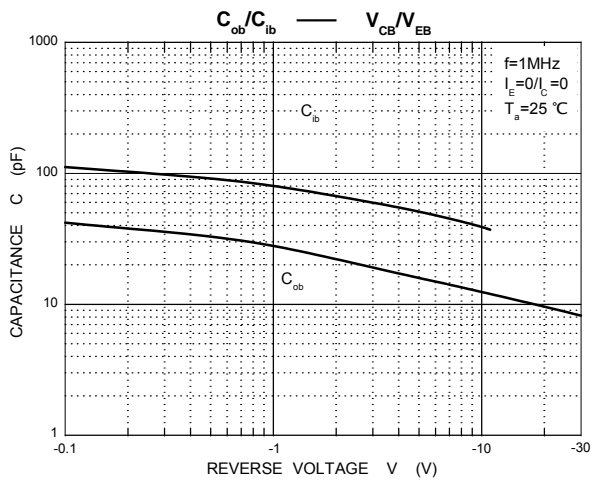
CLASSIFICATION OF $h_{FE(2)}$

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

BCP51-10/16 thru BCP53-10/16



BCP51-10/16 thru BCP53-10/16





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Ordering Information :

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

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

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