



Micro Commercial Components

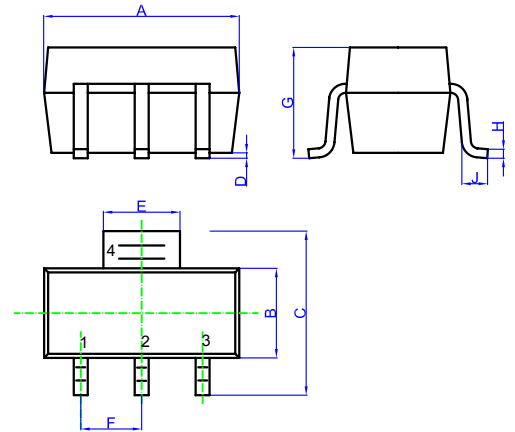


Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

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

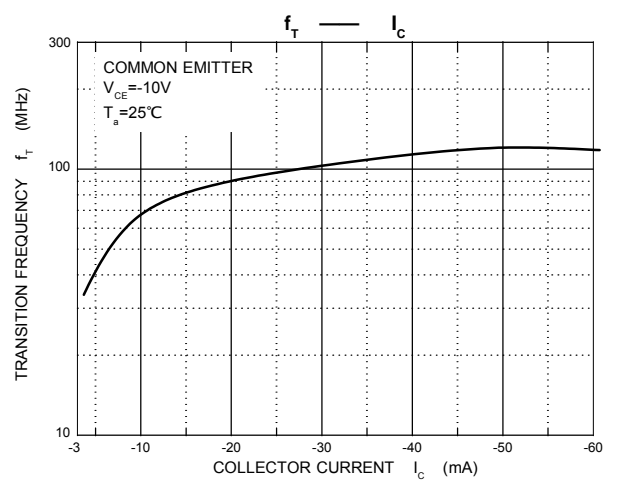
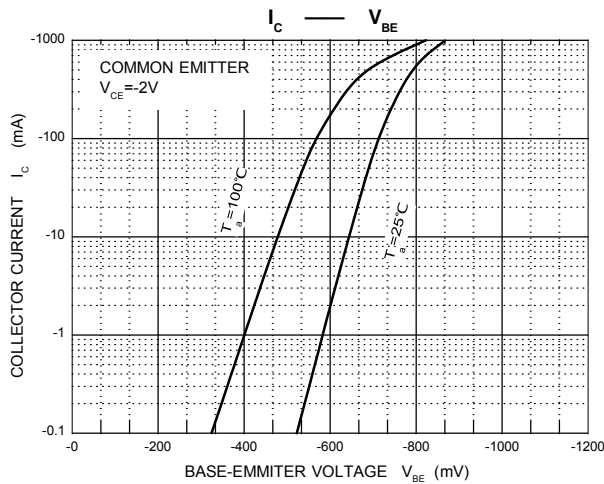
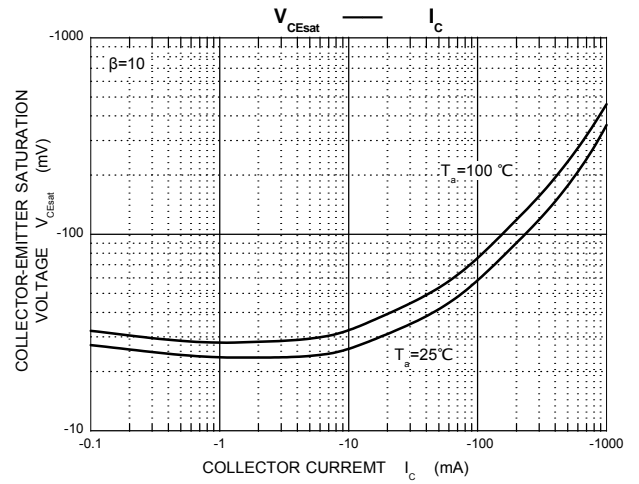
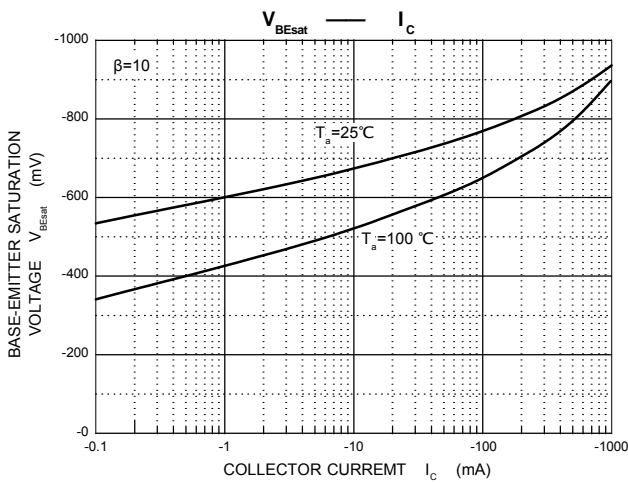
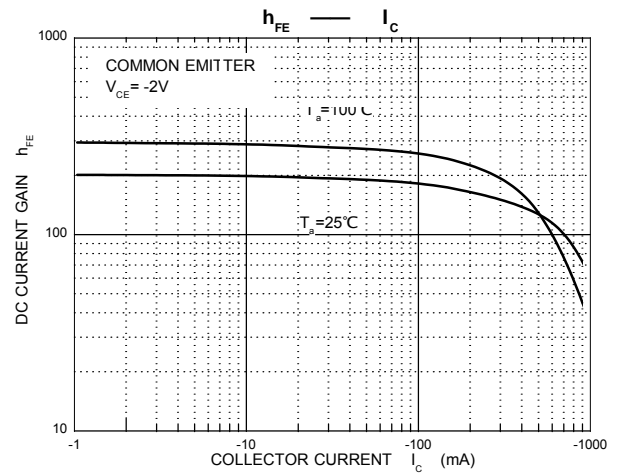
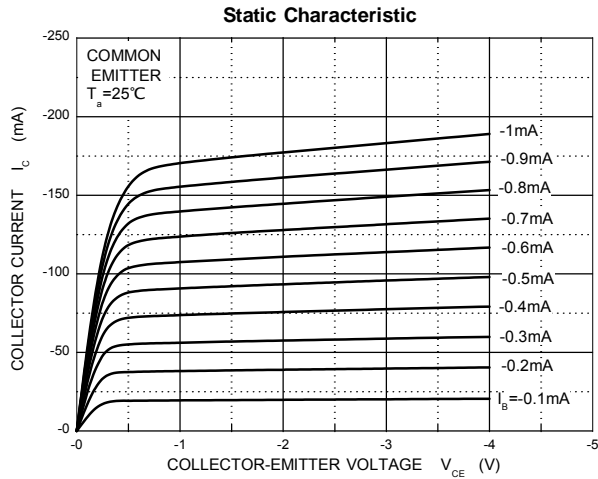
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

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

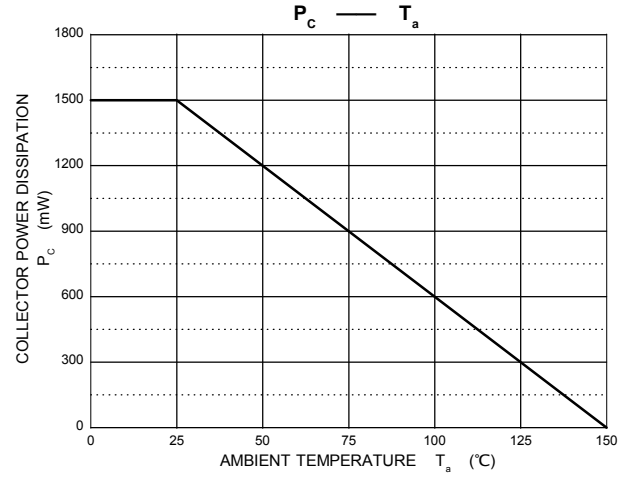
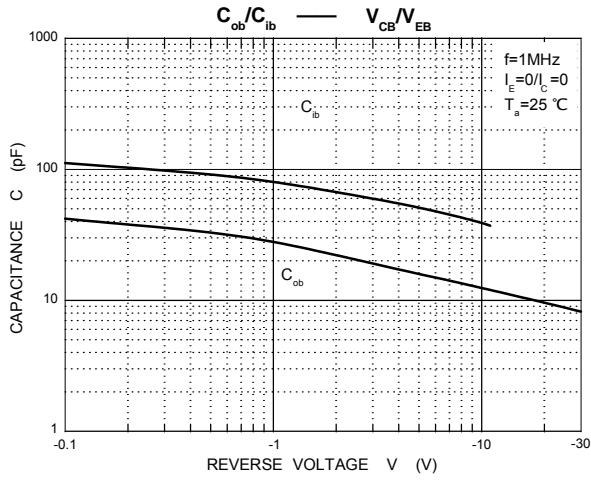
CLASSIFICATION OF $h_{FE(2)}$

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





Micro Commercial Components

Ordering Information :

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

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

www.mccsemi.com