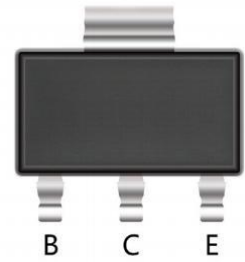
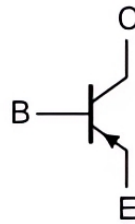


TRANSISTOR (PNP)

Parameter	Value	Unit
V_{CEO}	-45,-60,-80	V
I_C	-1	A



SOT-223

Features

- NPN Complements to BCP54,BCP55,BCP56
- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage

Applications

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

Absolute Maximum Ratings (at $T_a = 25^\circ\text{C}$, unless otherwise specified)

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCP51	-45	V
		BCP52	-60	
		BCP53	-100	
V_{CEO}	Collector-Emitter Voltage	BCP51	-45	V
		BCP52	-60	
		BCP53	-80	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current		-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
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient		94	$^\circ\text{C}/\text{W}$
T_J, T_{STG}	Operation Junction and Storage Temperature Range		-55~+150	$^\circ\text{C}$

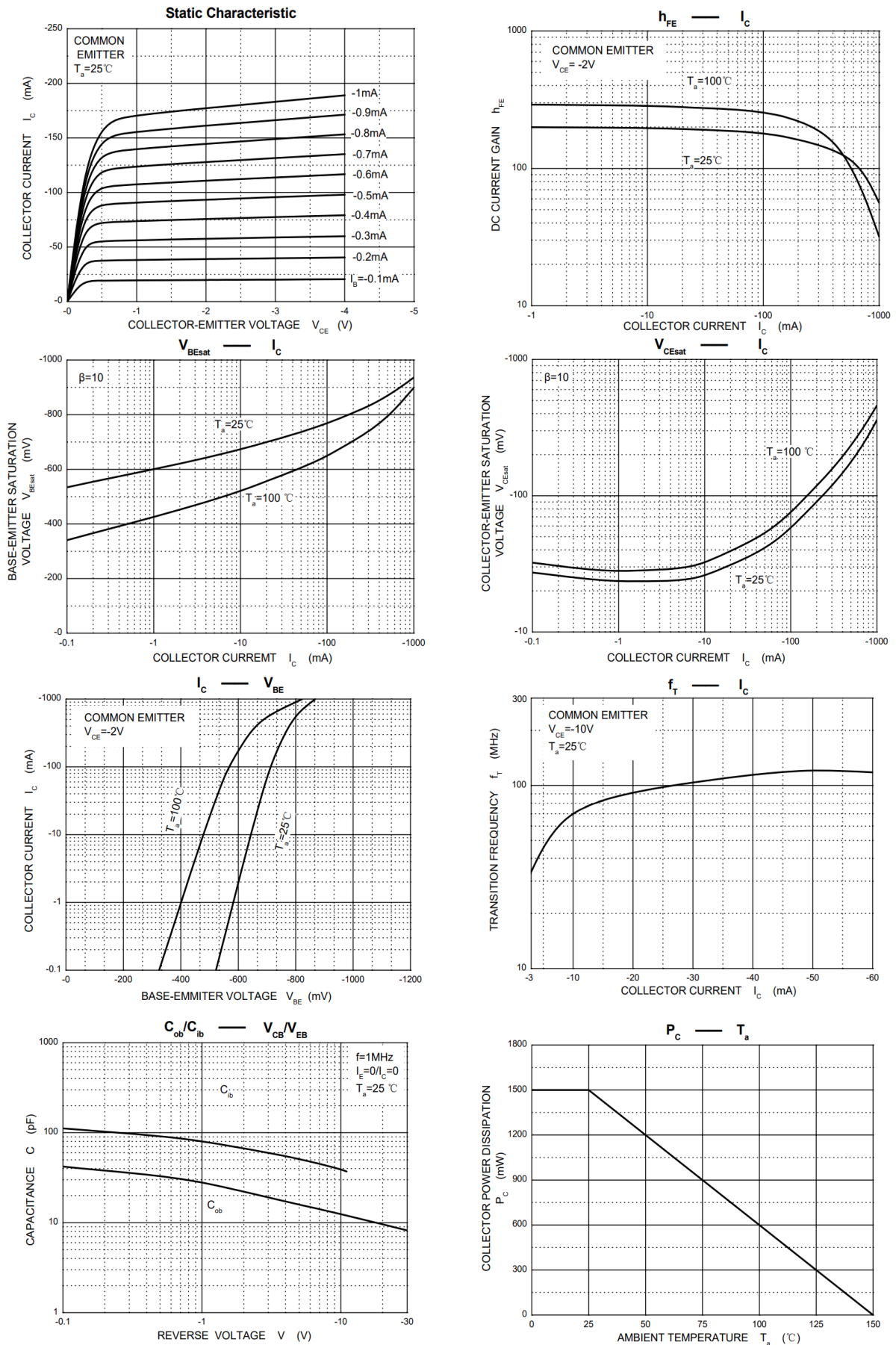
Electrical Characteristics (at $T_a = 25^\circ\text{C}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	BCP51	-45		V
			BCP52	-60		
			BCP53	-100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	BCP51	-45		V
			BCP52	-60		
			BCP53	-80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -30\text{V}, I_E = 0$			-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2\text{V}, I_C = -5\text{mA}$	25			
	$h_{FE(2)}$	$V_{CE} = -2\text{V}, I_C = -150\text{mA}$	63		250	
	$h_{FE(3)}$	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.5	V
Base -emitter voltage	V_{BE}	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$			-1	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$ $f = 100\text{MHz}$	100			MHz

CLASSIFICATION OF h_{FE}

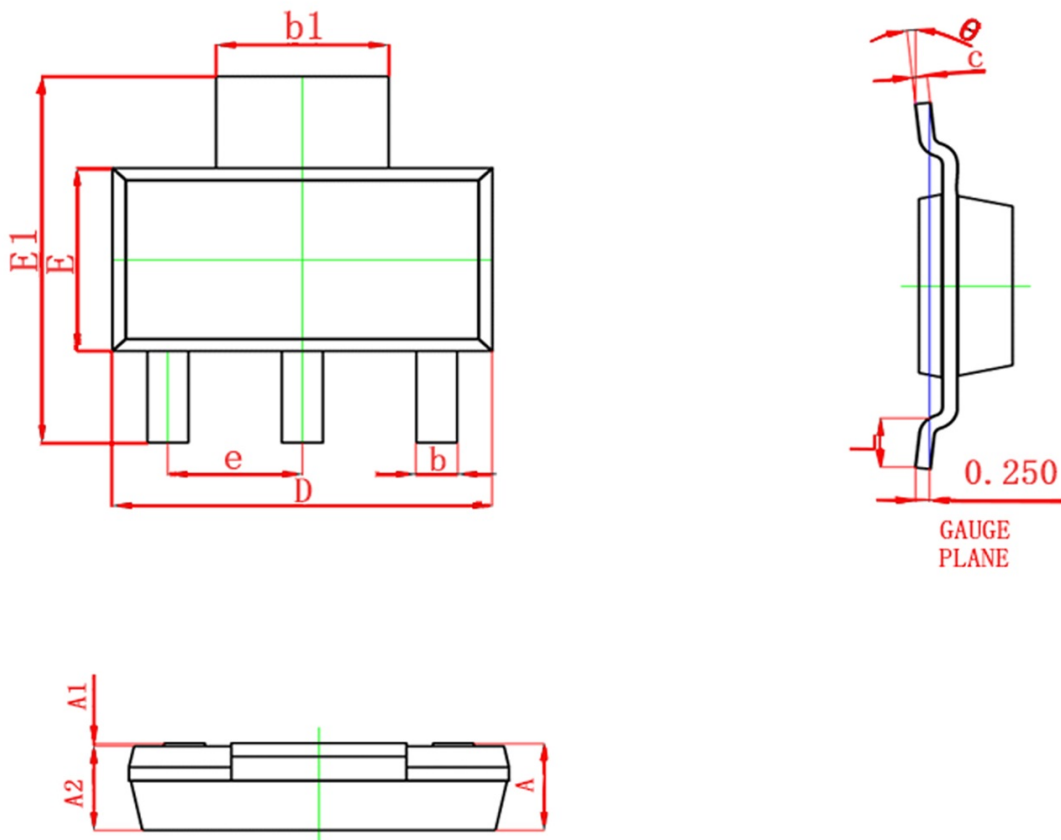
Rank	BCP51-10 BCP52-10 BCP53-10	BCP51-16 BCP52-16 BCP53-16
Range	63-160	100-250

Typical Characteristics



Package Outline Dimensions

SOT-223



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	--	1.800	--	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	3.300	3.700	0.130	0.146
E1	6.700	7.300	0.264	0.287
e	2.300(BSC)		0.091(BSC)	
L	0.750	--	0.030	--
θ	0°	10°	0°	10°

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