

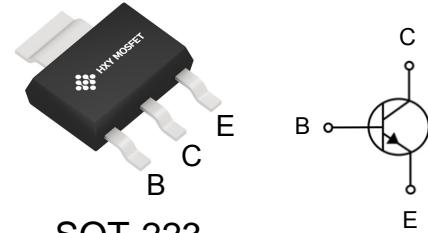


## Features

- Collector Current:  $I_C = 1A$
- Power Dissipation of 1.5W

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BCP51	SOT-223	BCP51	1000
BCP52	SOT-223	BCP52	1000
BCP53	SOT-223	BCP53	1000



SOT-223

## Maximum Ratings (Ta=25°C unless otherwise noted)

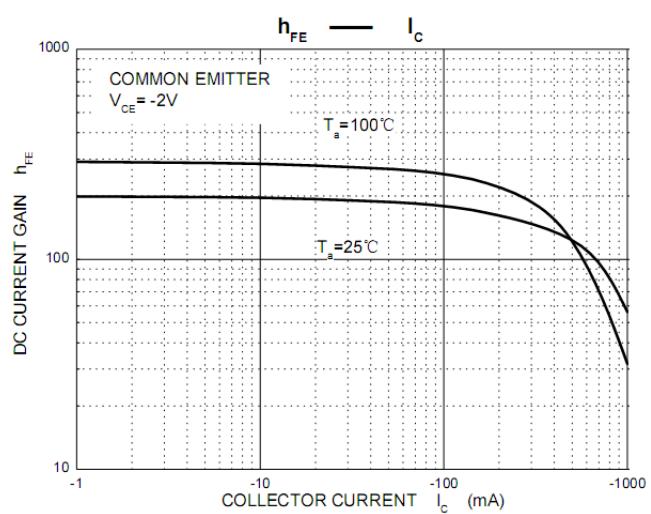
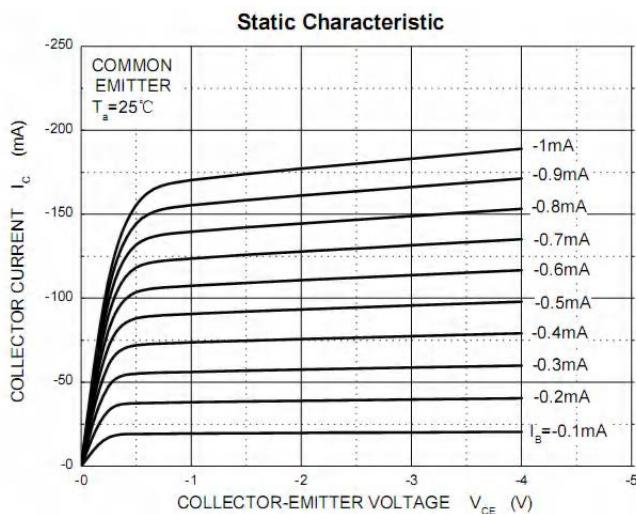
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	$V_{CBO}$	-45	
		-60	V
		-100	
Collector-Emitter Voltage	$V_{CEO}$	-45	
		-60	V
		-80	
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-1	A
Collector Power Dissipation	$P_C$	1.5	W
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	94	°C/W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

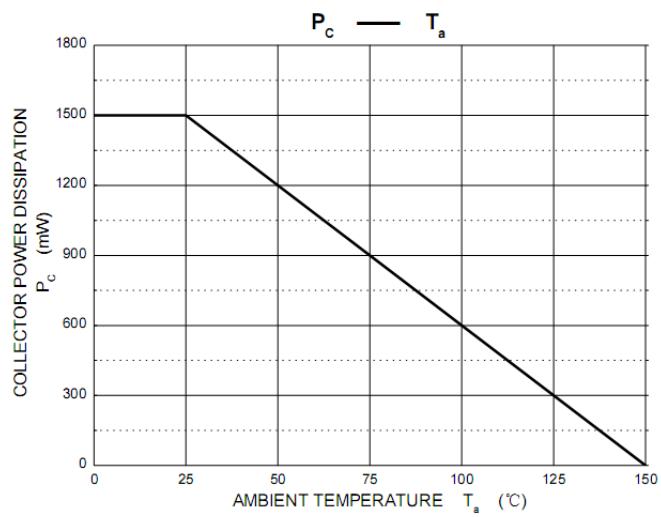
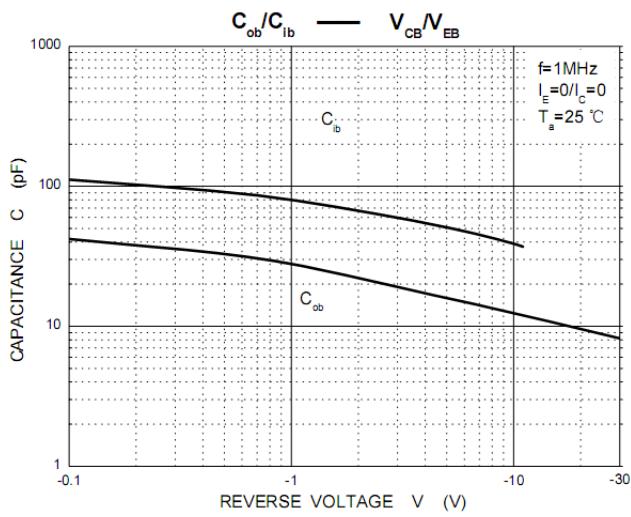
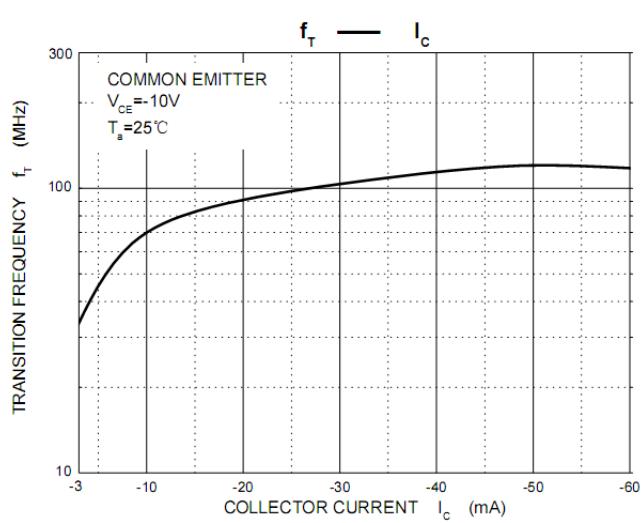
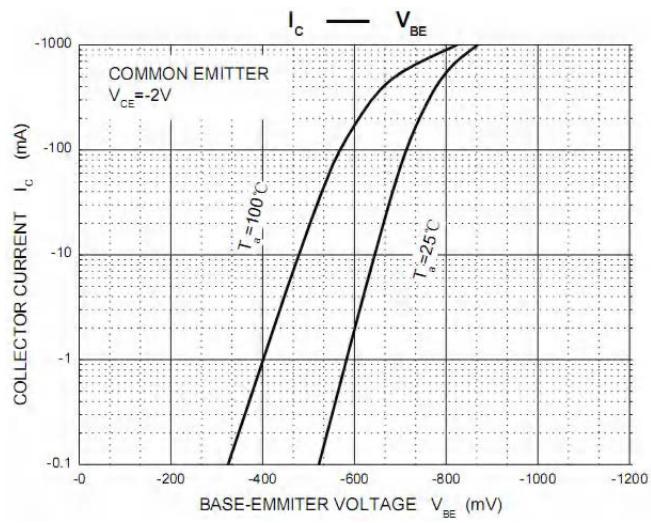
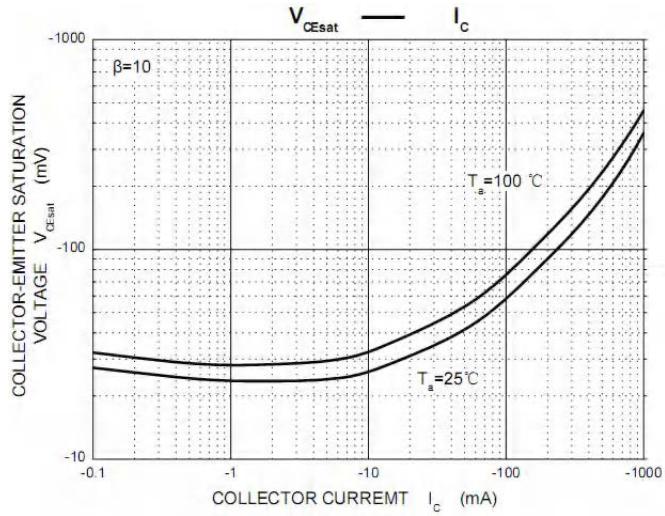
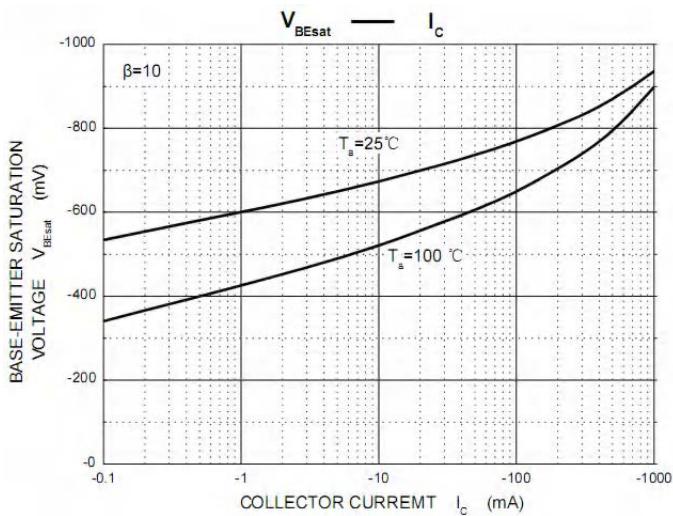


**Electrical Characteristics (Ta=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BCP51	$I_C = -0.1\text{mA}, I_E = 0$	-45		
	BCP52		-60		V
	BCP53		-100		
Collector-emitter breakdown voltage	BCP51	$I_C = -10\text{mA}, I_B = 0$	-45		
	BCP52		-60		V
	BCP53		-80		
Base-emitter 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	$V_{CE(\text{sat})}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-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

**Typical Characteristics**

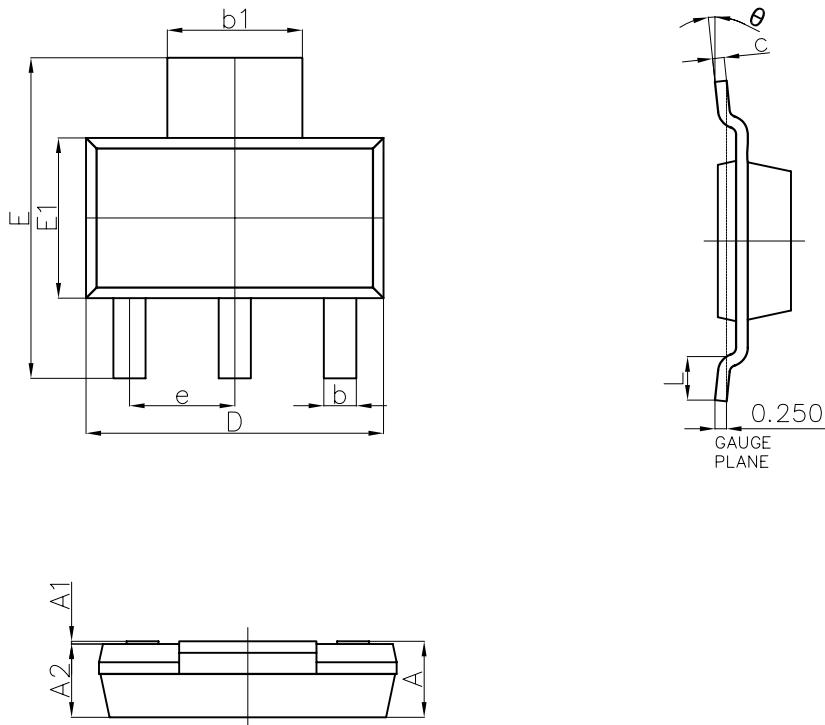






## Package Dimensions

SOT-223



Symbol	Dimensions In Millimeters		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	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	—	0.030	—
θ	0°	10°	0°	10°



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