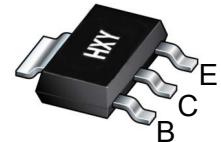




FEATURES

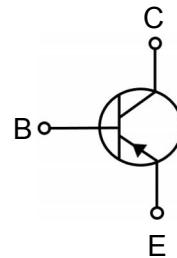
- Collector Current: $I_C=1A$
- Power Dissipation of 1.5W



SOT-223

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



MAXIMUM RATINGS (Ta=25 unless otherwise noted)

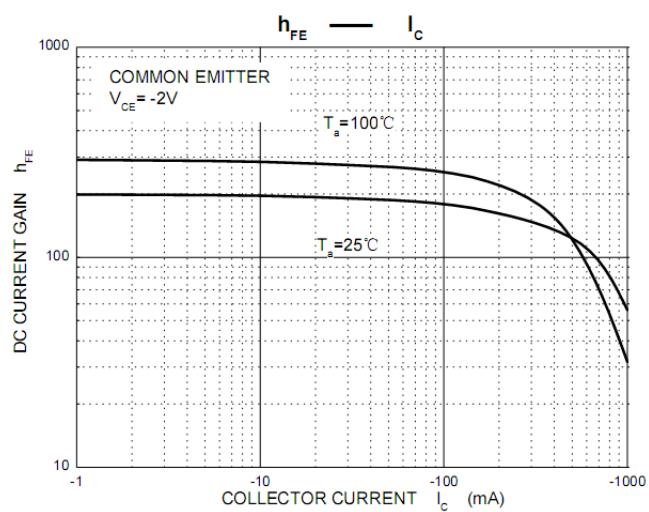
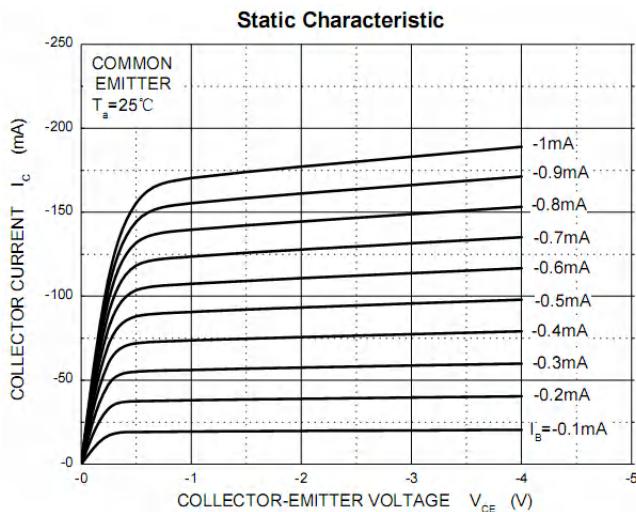
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-45	
		-60	V
		-100	
Collector-Emitter Voltage	V_{CEO}	-45	
		-60	V
		-80	
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Collector Power Dissipation	P_C	1.5	W
Thermal Resistance From Junction To Ambient	$R_{ThetaJA}$	94	°CW
Junction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

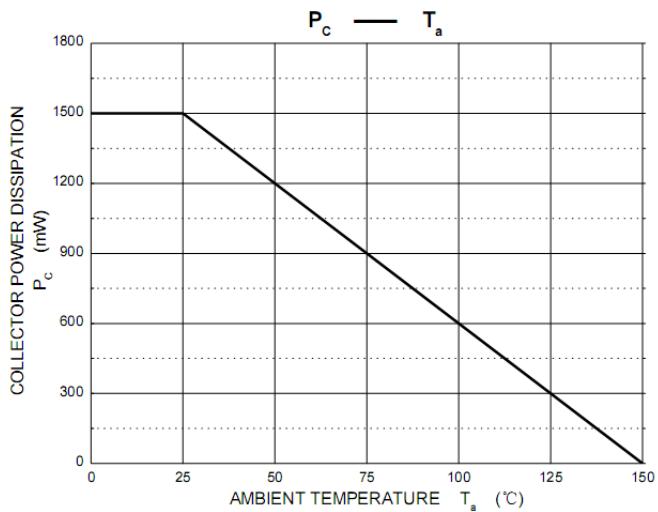
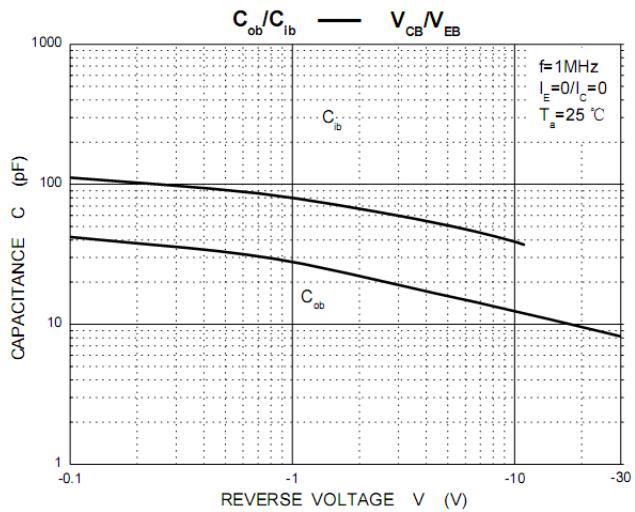
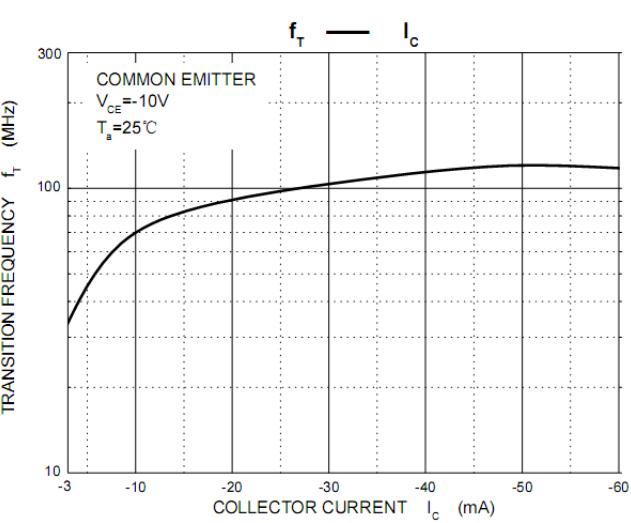
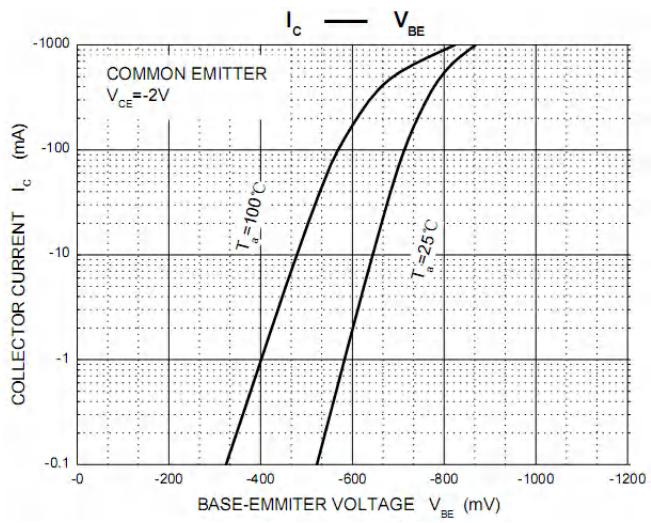
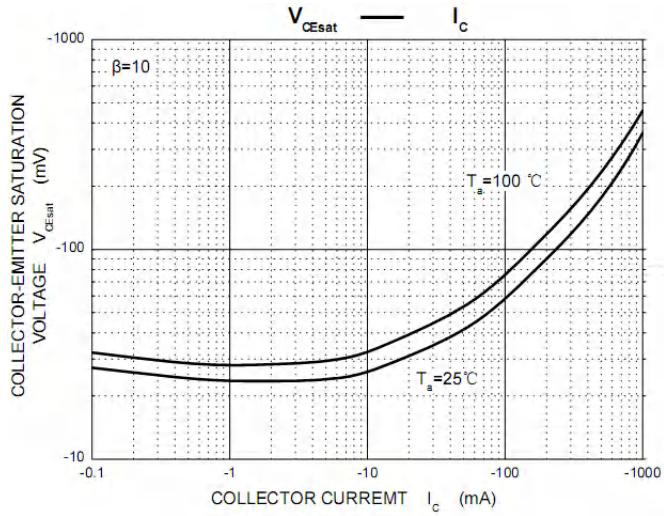
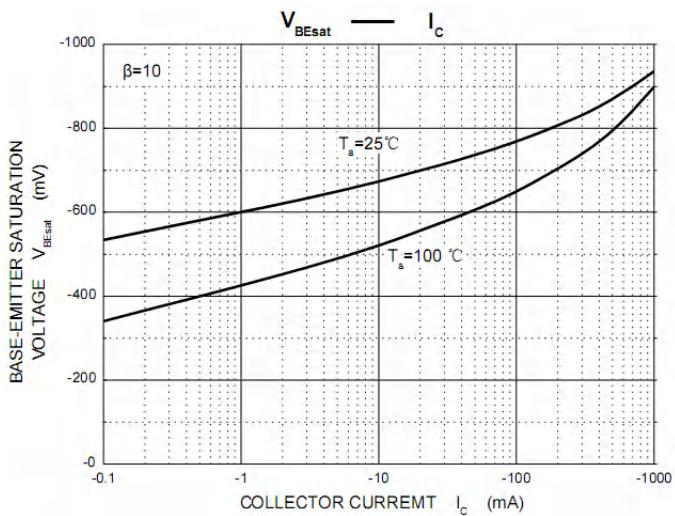


ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ unless otherwise specified

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	$V_{(\text{BR})\text{EBO}}$	$I_E=-10\mu\text{A}, I_C=0$	-5		V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=-30\text{ V}, I_E=0$		-100	nA
DC current gain	$h_{\text{FE}}(1)$	$V_{\text{CE}}=-2\text{V}, I_C=-5\text{mA}$	25		
	$h_{\text{FE}}(2)$	$V_{\text{CE}}=-2\text{V}, I_C=-150\text{mA}$	63	250	
	$h_{\text{FE}}(3)$	$V_{\text{CE}}=-2\text{V}, I_C=-500\text{mA}$	25		
Collector-emitter saturation voltage	$V_{\text{CE}(\text{sat})}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-0.5	V
Base-emitter voltage	V_{BE}	$V_{\text{CE}}=-2\text{V}, I_C=-500\text{mA}$		-1	V
Transition frequency	f_T	$V_{\text{CE}}=-10\text{V}, I_C=-50\text{mA}, f=100\text{MHz}$	100		MHz

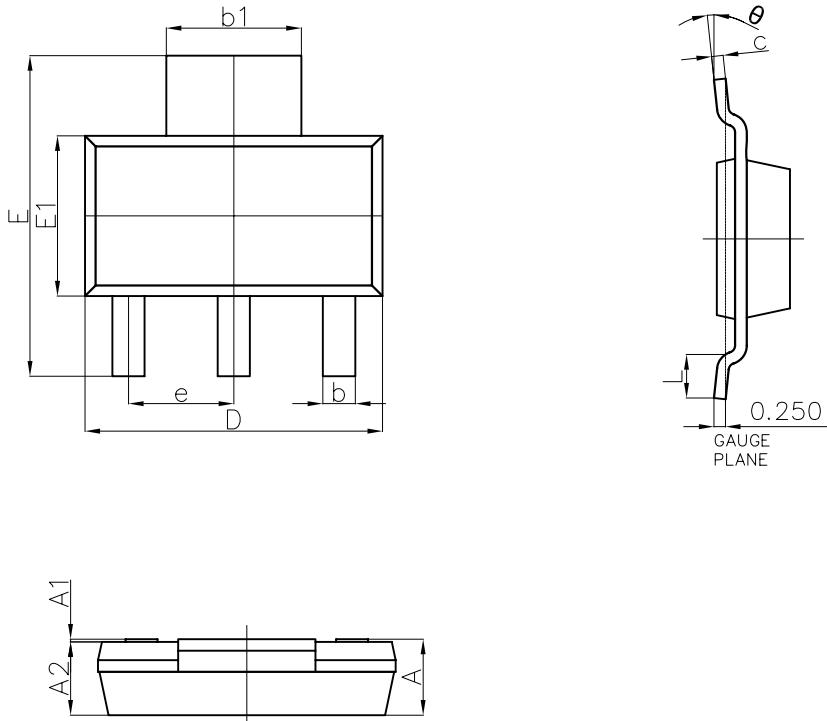
Typical Characteristics







SOT-223 Package Outline Dimensions



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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