

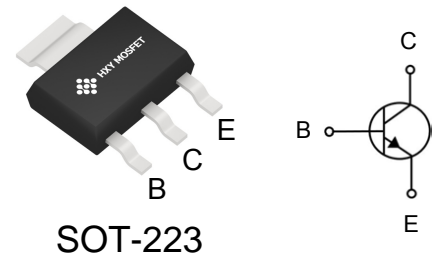


Features

- 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



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

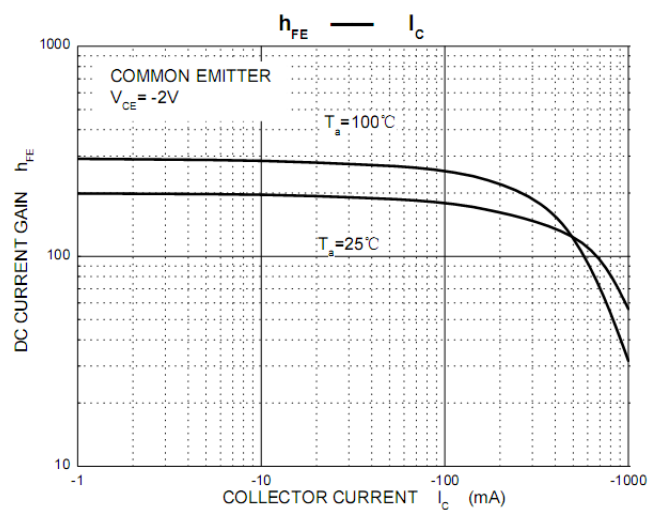
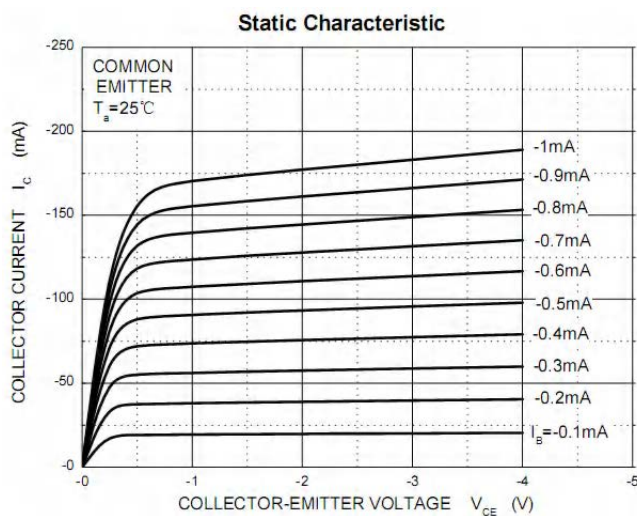
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	BCP51 -45	V
		BCP52 -60	
		BCP53 -100	
Collector-Emitter Voltage	V_{CEO}	BCP51 -45	V
		BCP52 -60	
		BCP53 -80	
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Collector Power Dissipation	P_C	1.5	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	94	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

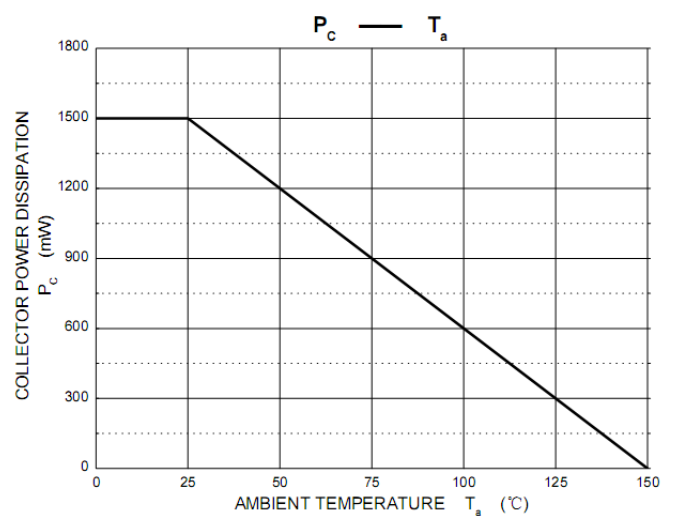
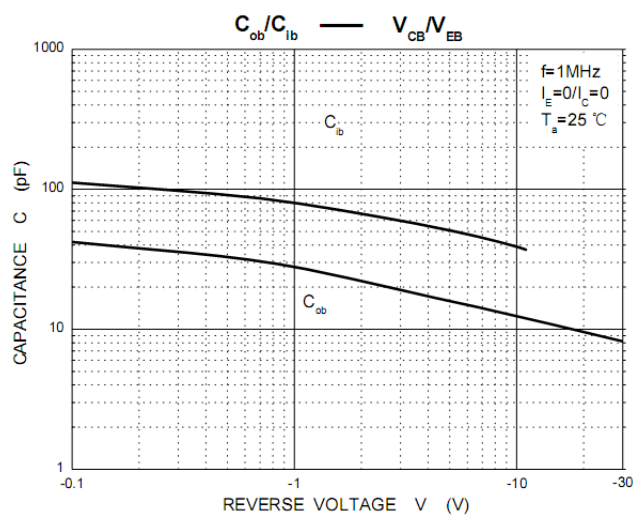
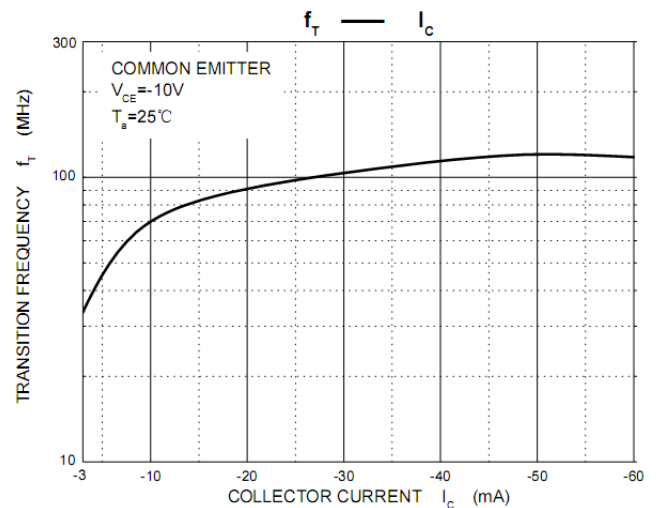
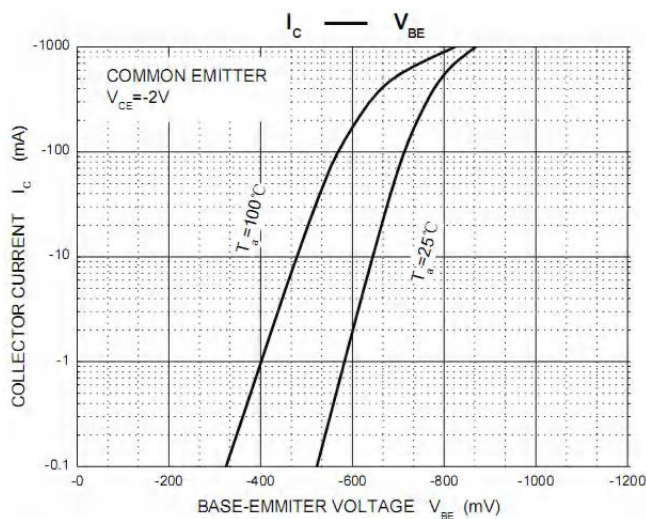
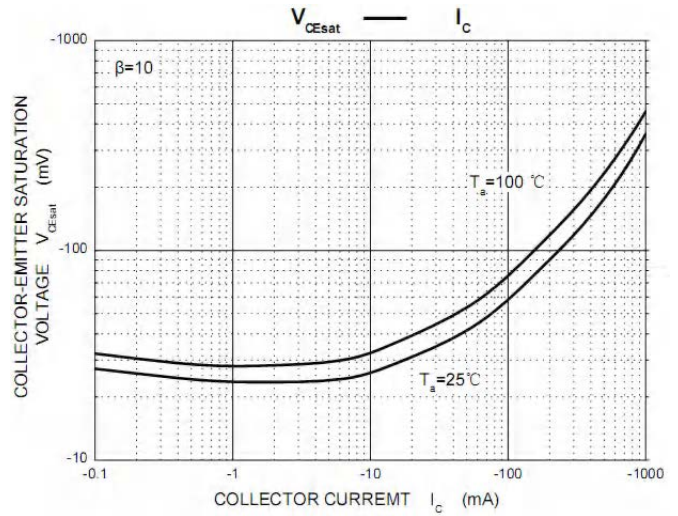
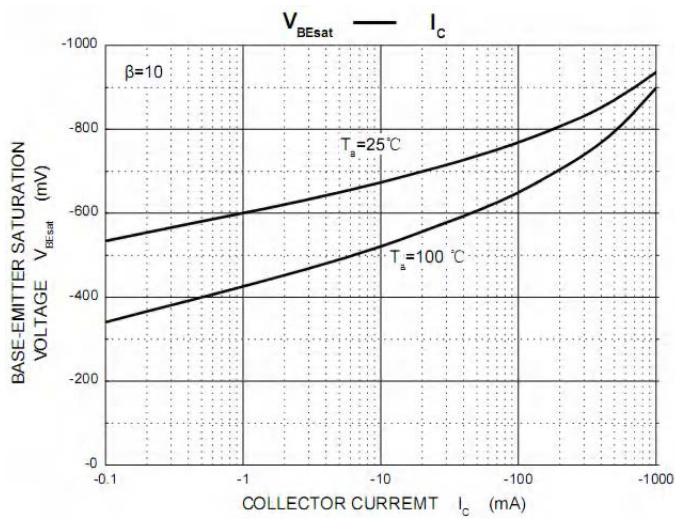


Electrical Characteristics($T_a=25^{\circ}\text{C}$ unless otherwise specified)

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

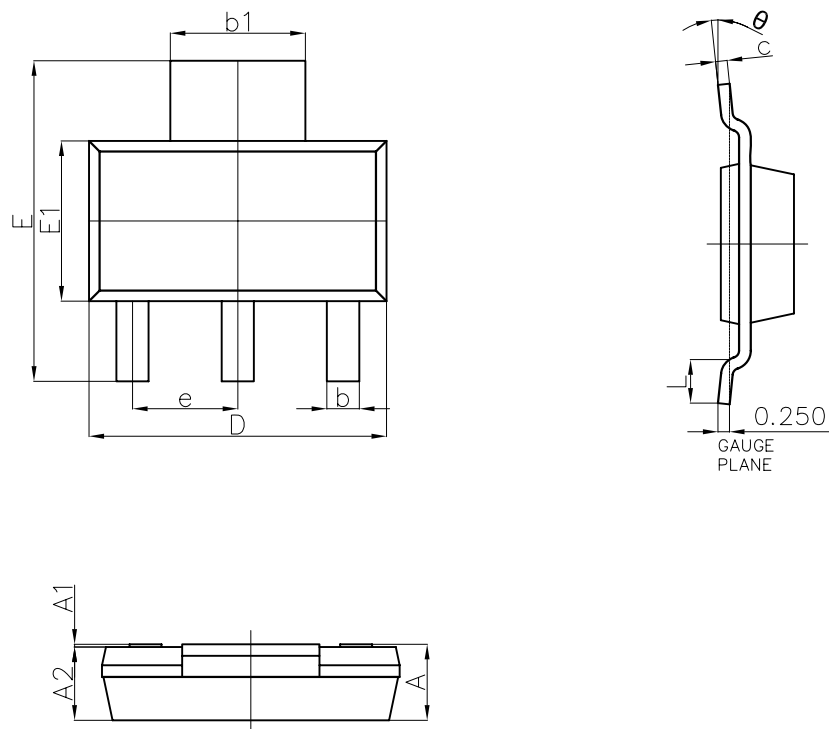
Typical Characteristics







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
b_1	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
E_1	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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