

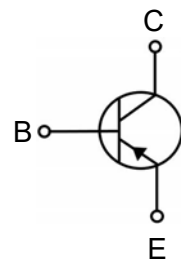
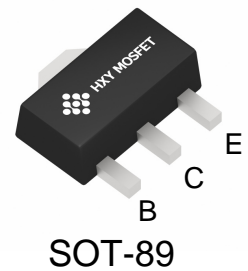


Features

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

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BCP51	SOT-89	BCP51	1000
BCP52	SOT-89	BCP52	1000
BCP53	SOT-89	BCP53	1000



Maximum Ratings (Ta=25 unless otherwise noted)

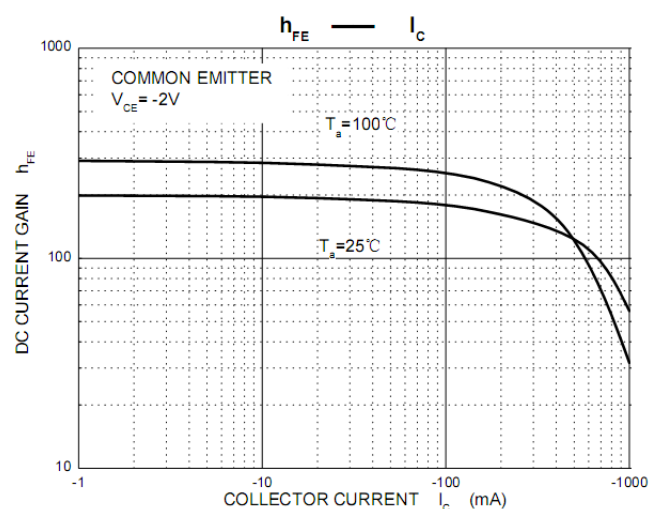
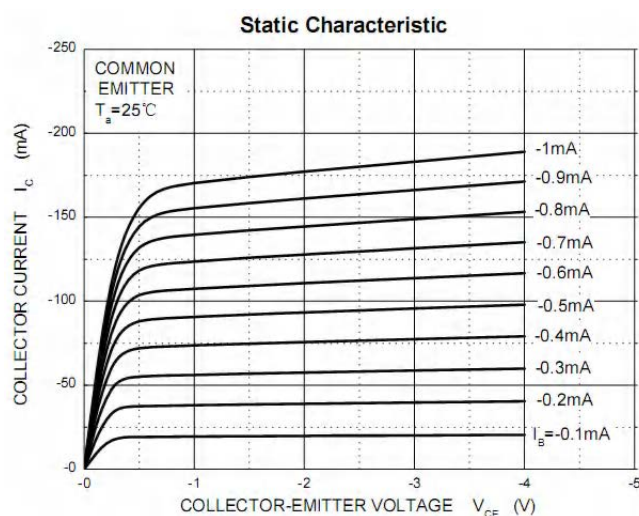
Parameter		Symbol	Limit	Unit
Collector-Base Voltage	BCP51	V_{CBO}	-45	V
	BCP52		-60	
	BCP53		-100	
Collector-Emitter Voltage	BCP51	V_{CEO}	-45	V
	BCP52		-60	
	BCP53		-80	
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-1	A
Collector Power Dissipation		P_C	1.5	W
Thermal Resistance From Junction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

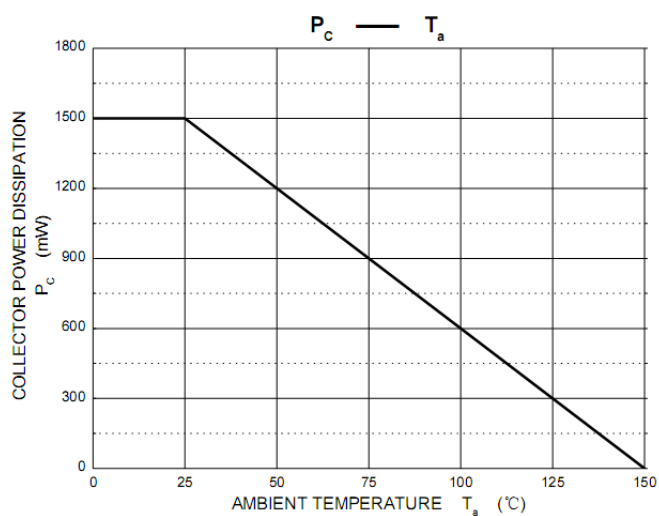
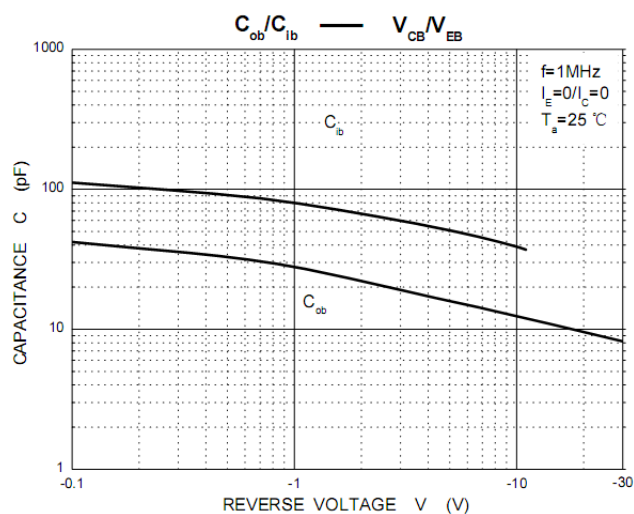
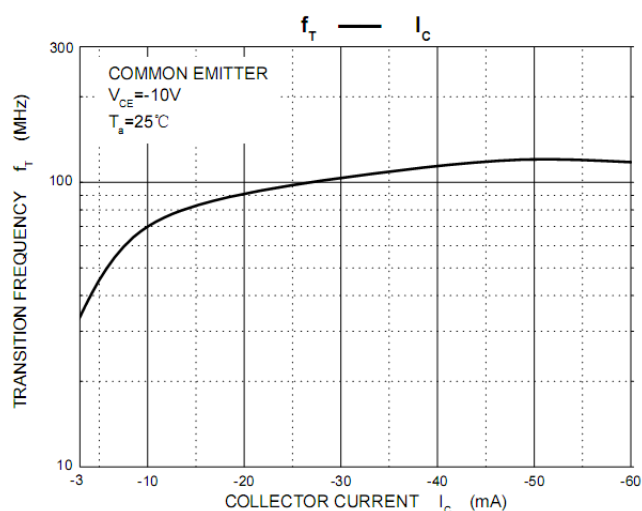
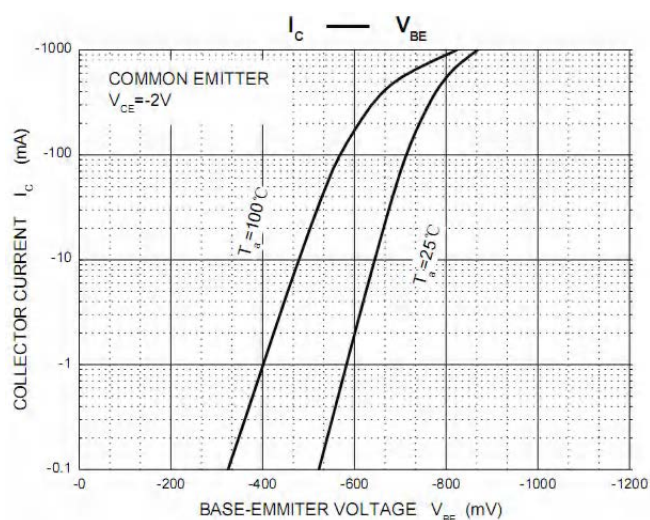
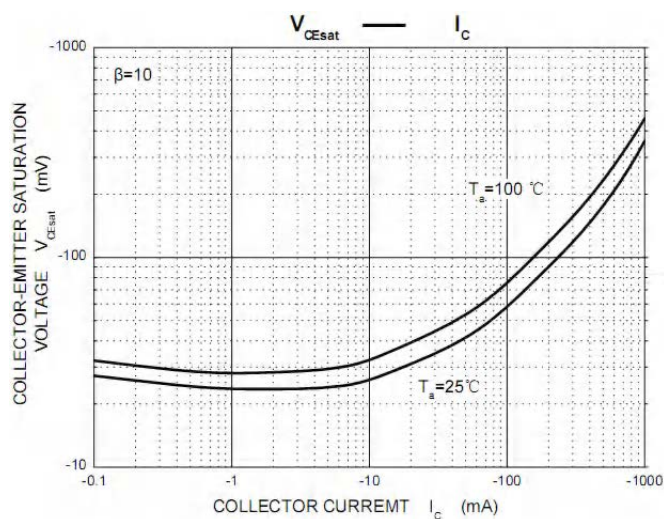
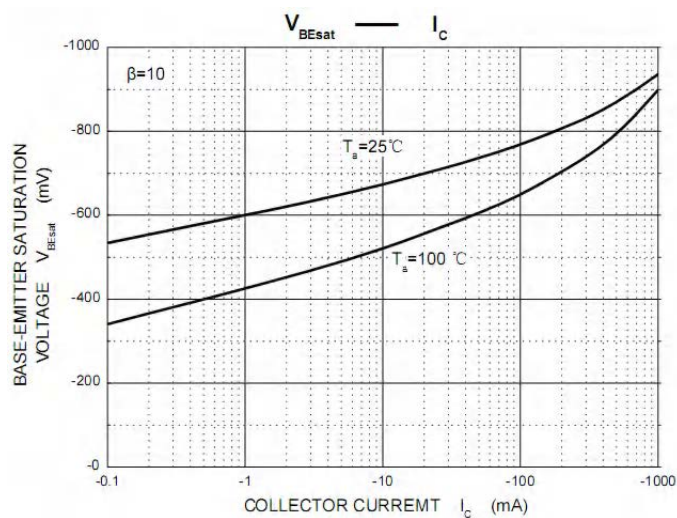


Electrical Characteristics($T_a=25^\circ\text{C}$ unless otherwise specified)

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

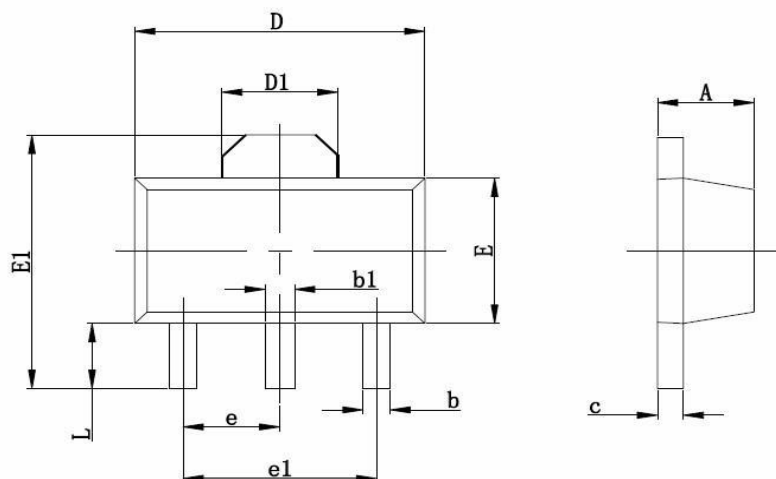
Typical Characteristics







SOT-89 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047



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