

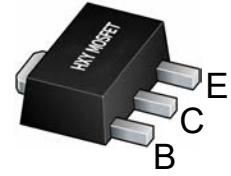


## Features

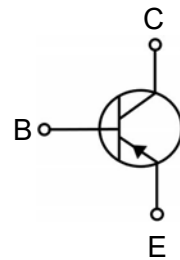
- Collector Current:  $I_C = -1A$
- Power Dissipation of 1.5w

## Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BCP51	SOT89-3L	BCP51	1000
BCP52	SOT89-3L	BCP52	1000
BCP53	SOT89-3L	BCP53	1000



SOT89-3L



## Maxmim Ratings (Ta=25 unless otherwise noted)

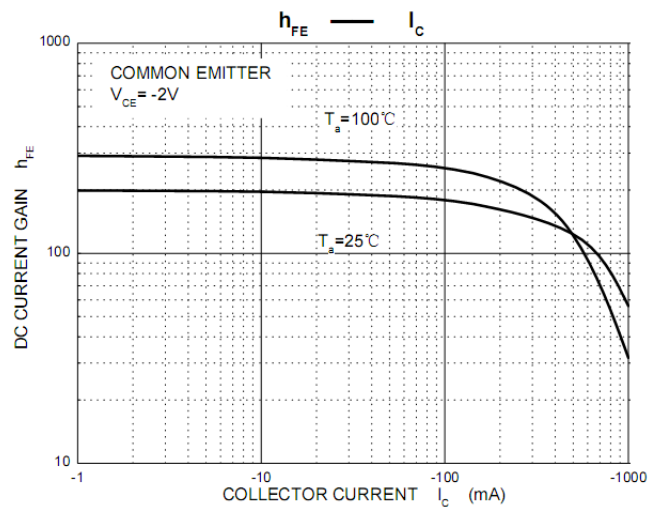
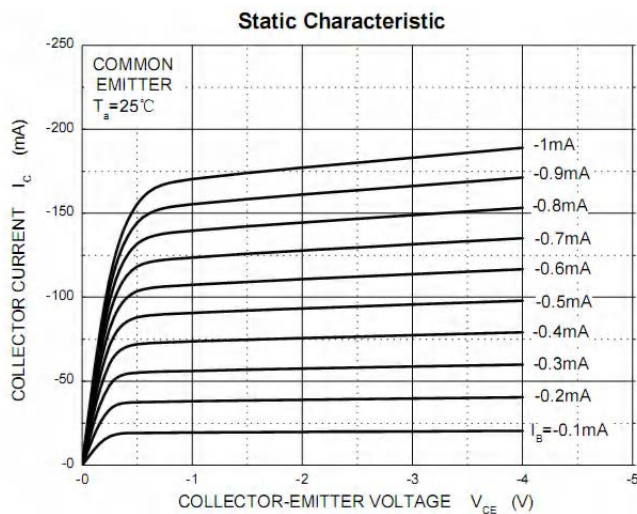
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	BCP51	-45	V
	BCP52	-60	
	BCP53	-100	
Collector-Emitter Voltage	BCP51	-45	V
	BCP52	-60	
	BCP53	-80	
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-1	A
Collector Power Dissipation	$P_C$	1.5	W
Thermal Resistance From Junction To Ambient	$R_{\theta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

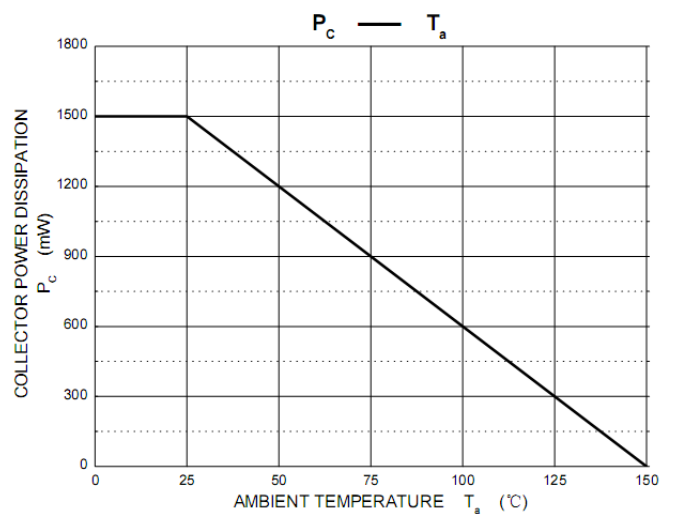
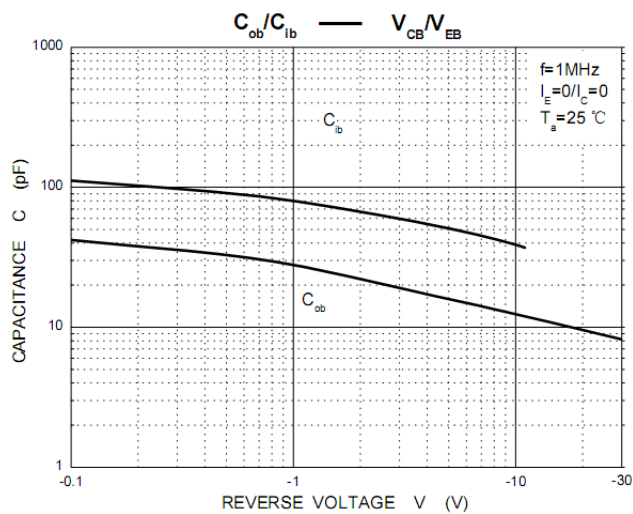
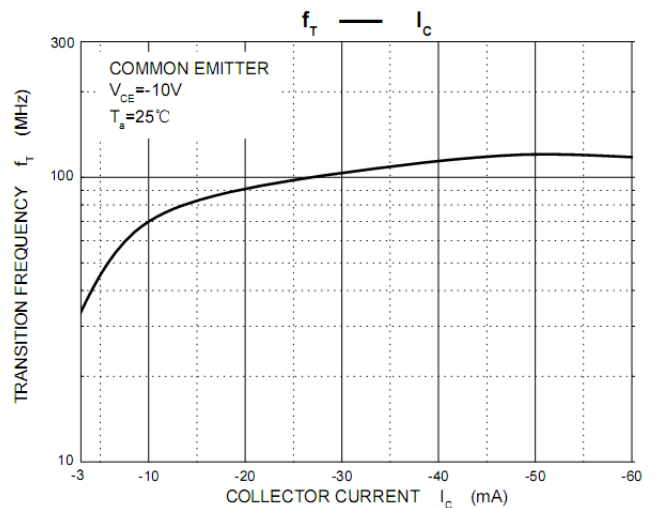
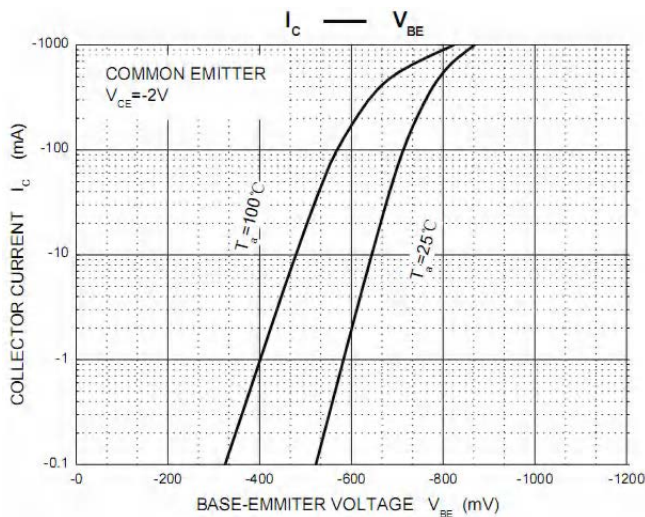
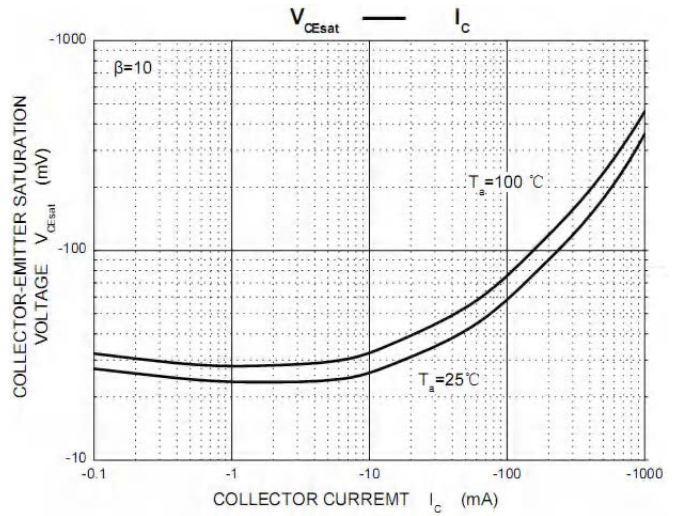
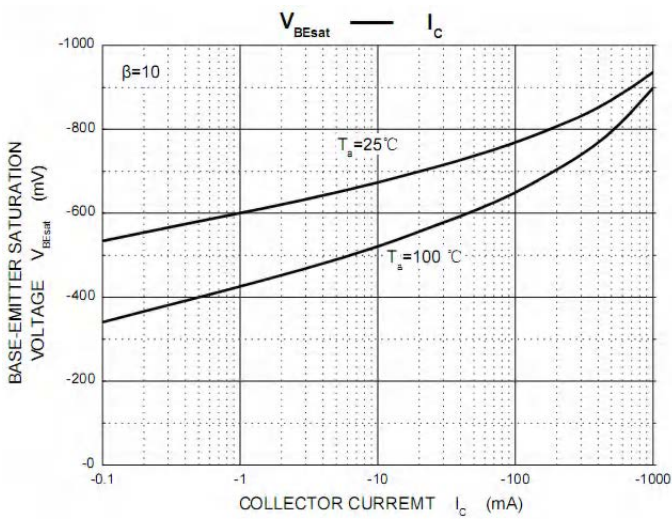


**Electrcal Charcteristics**  $T_a=25^\circ\text{C}$  unless otherwise specified

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

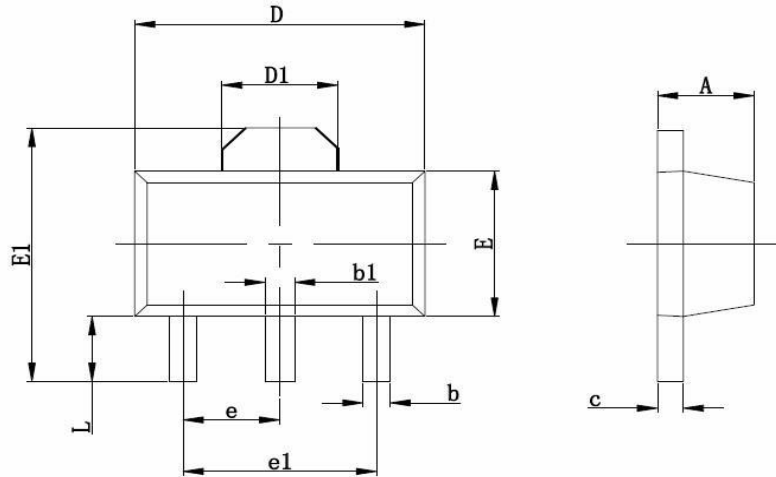
**Typical Characteristics**







### SOT89-3L 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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