



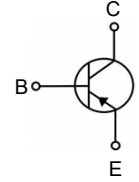
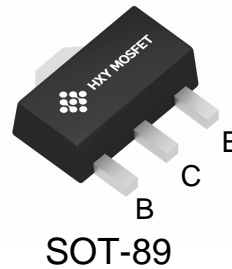
Features

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

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BCP51/BCP52 BCP53	SOT-89	BCP5x	1000

x:From 1/2/3



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

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-45 -60 -100	V
Collector-Emitter Voltage	V_{CEO}	-45 -60 -80	V
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)

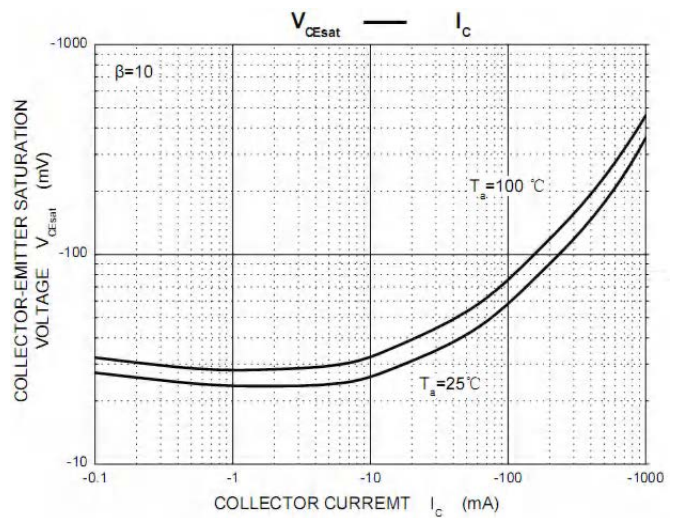
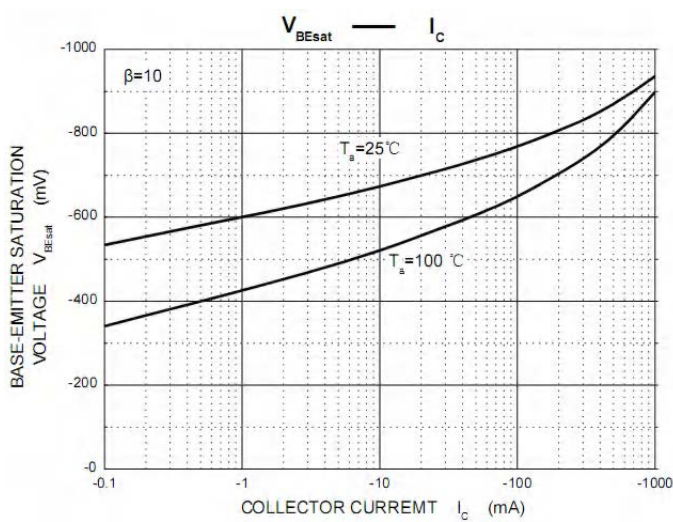
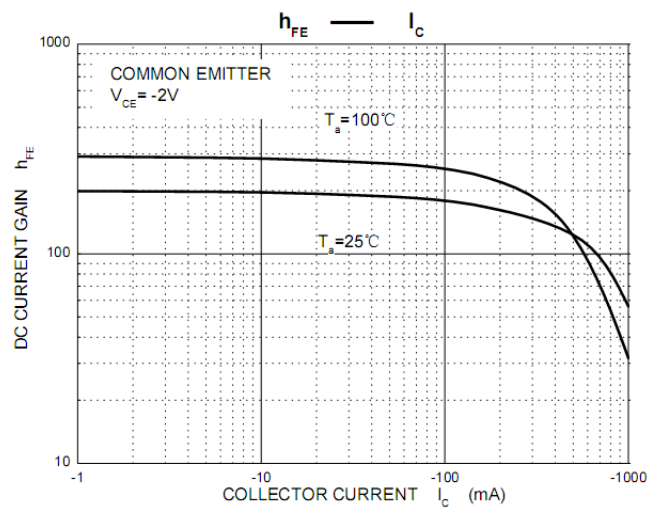
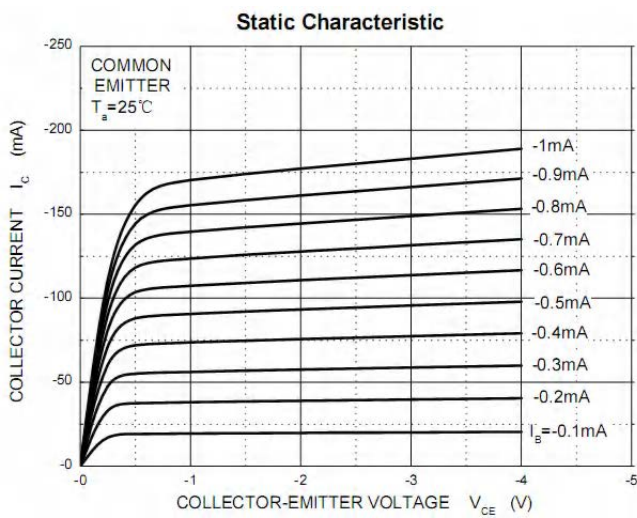
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1mA, I_E = 0$	-45 -60 -100		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-45 -60 -80		V
Base-emitter breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -30V, I_E = 0$		-100	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -2V, I_C = -5mA$	25		
	$h_{FE(2)}$	$V_{CE} = -2V, I_C = -150mA$	63	250	
	$h_{FE(3)}$	$V_{CE} = -2V, I_C = -500mA$	25		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$		-0.5	V
Base-emitter voltage	V_{BE}	$V_{CE} = -2V, I_C = -500mA$		-1	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -50mA, f = 100MHz$	100		MHz

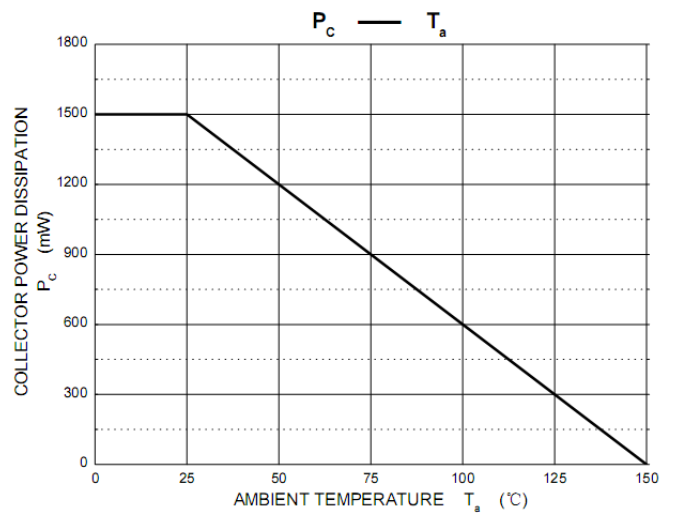
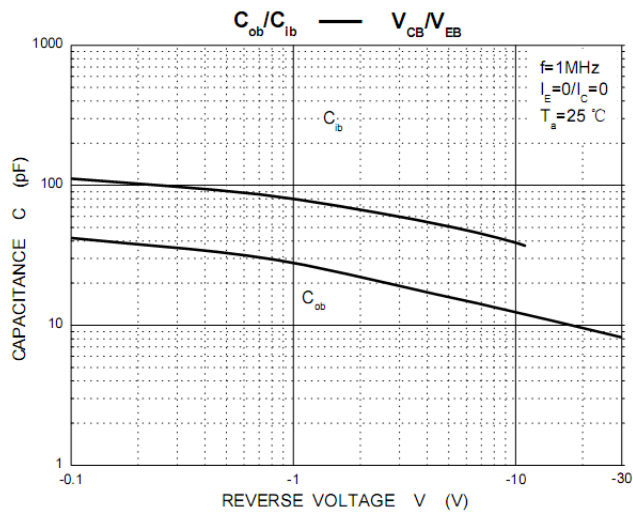
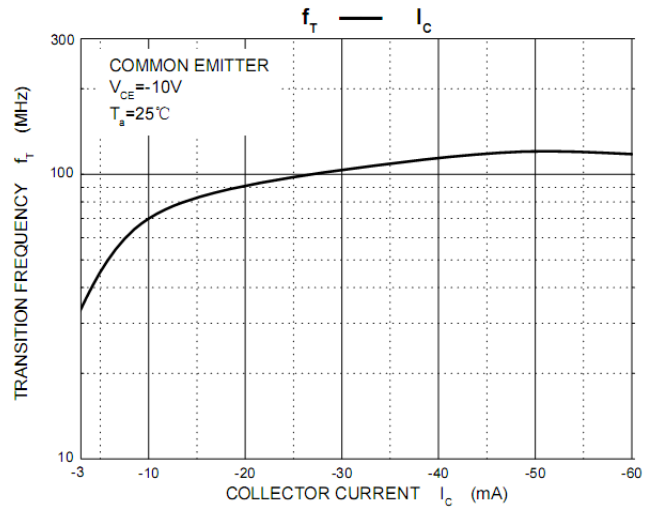
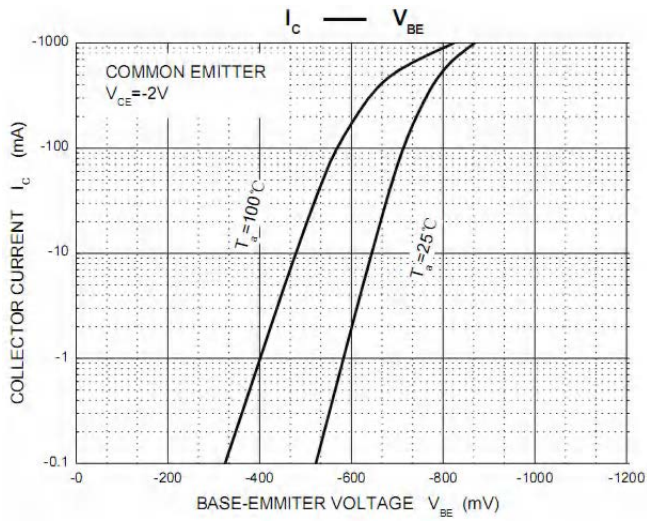


Classification Of h_{FE}

Rank	BCP51, BCP52, BCP53	BCP51-10, BCP52-10, BCP53-10	BCP51-16, BCP52-16 BCP53-16
Range	63-250	63-160	100-250

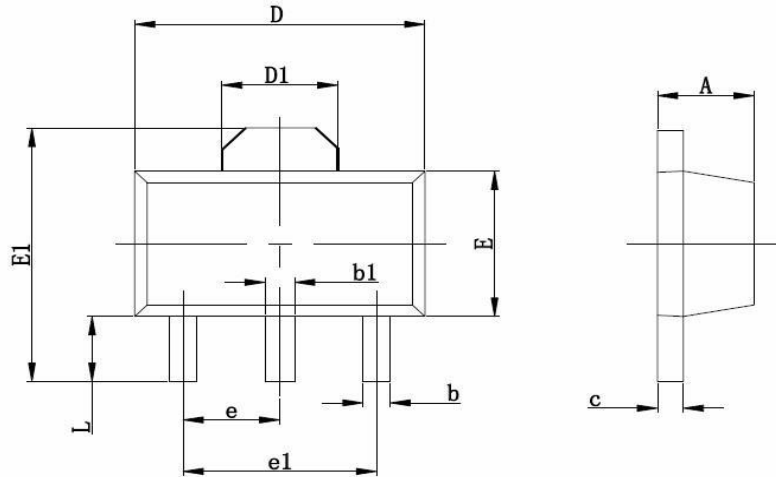
Typical Characteristics







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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