



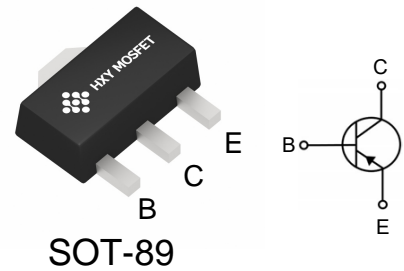
## Features

- Collector Current:  $I_C = 1A$
- Power Dissipation of 500mW

## Ordering Information

Product ID	Pack	Marking	Qty(PCS)
BCX51 BCX52,BCX53	SOT-89	Ax	1000

x: BCX51=A; BCX51-10=C; BCX51-16=D;  
BCX52=E; BCX52-10=G; BCX52-16=M;  
BCX53=H; BCX53-10=K; BCX53-16=L.



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

Parameter	Symbol	BCX51	BCX52	BCX53	Unit
Collector-base voltage	$V_{CB0}$	-45	-60	-100	V
Collector-emitter voltage	$V_{CEO}$	-45	-60	-80	V
Emitter-base voltage	$V_{EBO}$		-5		V
Collector continuous current	$I_C$		-1		A
Collector power dissipation	$P_C^{(1)}$		0.5		W
Thermal resistance from junction to ambient	$R_{\theta JA}^{(1)}$		250		°C/W
Collector power dissipation	$P_C^{(2)}$		2		W
Thermal resistance from junction to ambient	$R_{\theta JA}^{(2)}$		61.5		°C/W
Operating junction and storage temperature range	$T_j, T_{stg}$		-55 ~ 150		°C



**Electrical Characteristics(Ta=25 unless otherwise specified)**

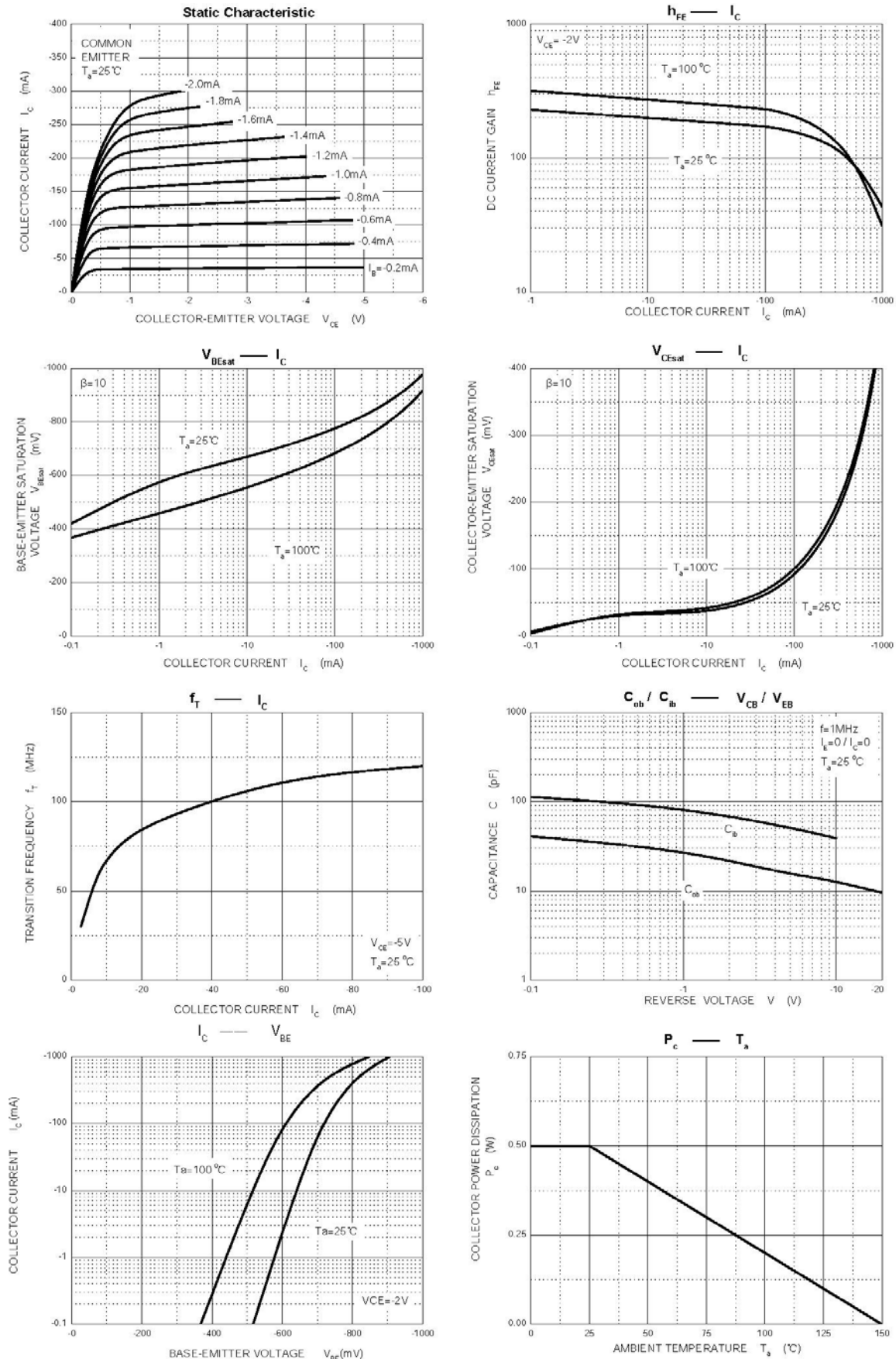
Parameter		Symbol	Test condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	BCX51	$V_{(BR)CBO}$	$I_C = -0.1mA, I_E = 0A$	-45	-	-	V
	BCX52			-60	-	-	
	BCX53			-100	-	-	
Collector-emitter breakdown voltage	BCX51	$V_{(BR)CEO}^{(3)}$	$I_C = -10mA, I_B = 0A$	-45	-	-	V
	BCX52			-60	-	-	
	BCX53			-80	-	-	
Base-emitter breakdown voltage		$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0A$	-5	-	-	V
Collector-base cut-off current		$I_{CBO}$	$V_{CB} = -30V, I_E = 0A$	-	-	-0.1	$\mu A$
Emitter-base cut-off current		$I_{EBO}$	$V_{EB} = -5V, I_C = 0A$	-	-	-0.1	$\mu A$
DC current gain		$h_{FE(1)}^{(3)}$	$V_{CE} = -2V, I_C = -5mA$	63	-	-	-
		$h_{FE(2)}^{(3)}$	$V_{CE} = -2V, I_C = -150mA$	63	-	250	
		$h_{FE(3)}^{(3)}$	$V_{CE} = -2V, I_C = -500mA$	40	-	-	
Collector-emitter saturation voltage		$V_{CE(sat)}^{(3)}$	$I_C = -500mA, I_B = -50mA$	-	-	-0.5	V
Base-emitter voltage		$V_{BE}^{(3)}$	$I_C = -500mA, V_{CE} = -2V$	-	-	-1	V
Transition frequency		$f_T$	$V_{CE} = -5V, I_C = -10mA, f = 100MHz$	-	50	-	MHz

**Classification Of  $h_{FE}$**

Rank	BCX51,BCX52 BCX53	BCX51-10,BCX52-10, BCX53-10	BCX51-16,BCX52-16, BCX53-16
Range	63-250	63-160	100-250

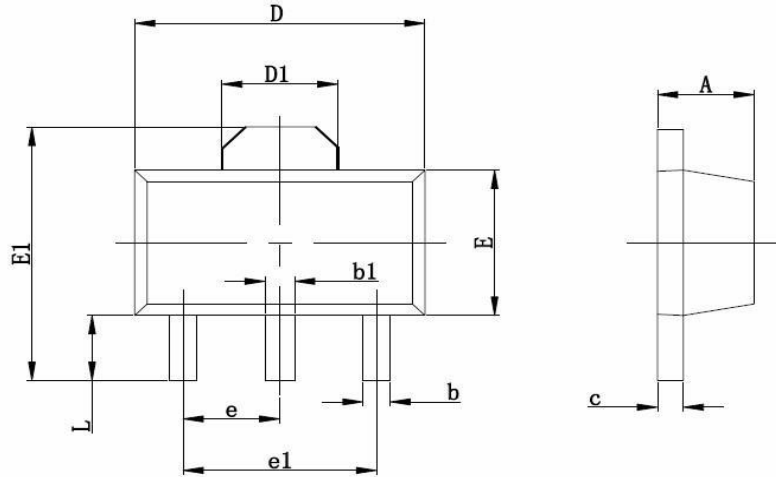


## Typical Characteristics





### 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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