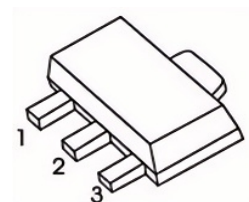


TRANSISTOR (PNP)

Parameter	Value	Unit
V_{CEO}	-45,-60,-80	V
I_C	-1	A

1. BASE
2. COLLECTOR
3. EMITTER



SOT-89

Features

- NPN Complements to BCX54,BCX55,BCX56
- Low Voltage
- High Current

Applications

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

Absolute Maximum Ratings (at $T_a = 25^\circ\text{C}$, unless otherwise specified)

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCX51	-45	V
		BCX52	-60	
		BCX53	-100	
V_{CEO}	Collector-Emitter Voltage	BCX51	-45	V
		BCX52	-60	
		BCX53	-80	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current		-1	A
P_C	Collector Power Dissipation		500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient		250	$^\circ\text{C}/\text{W}$
T_j	Junction Temperature		150	$^\circ\text{C}$
T_{stg}	Storage Temperature		-55~+150	$^\circ\text{C}$

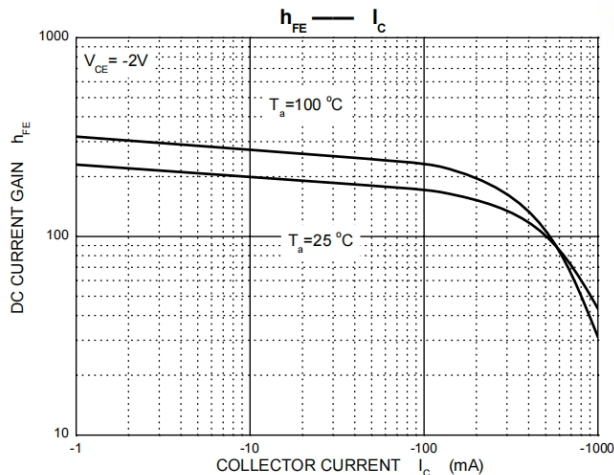
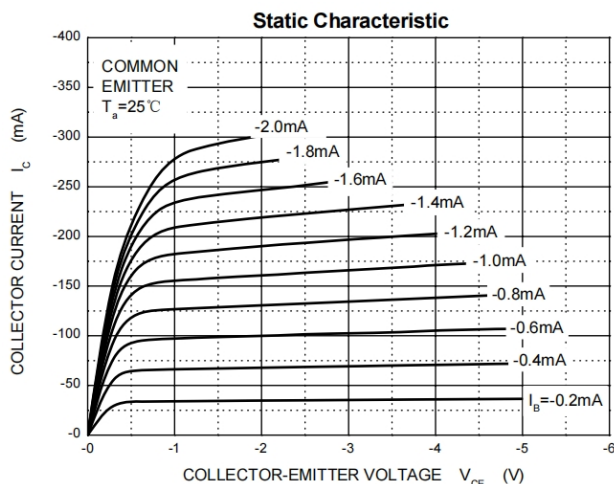
Electrical Characteristics (at $T_a = 25^\circ\text{C}$, unless otherwise specified)

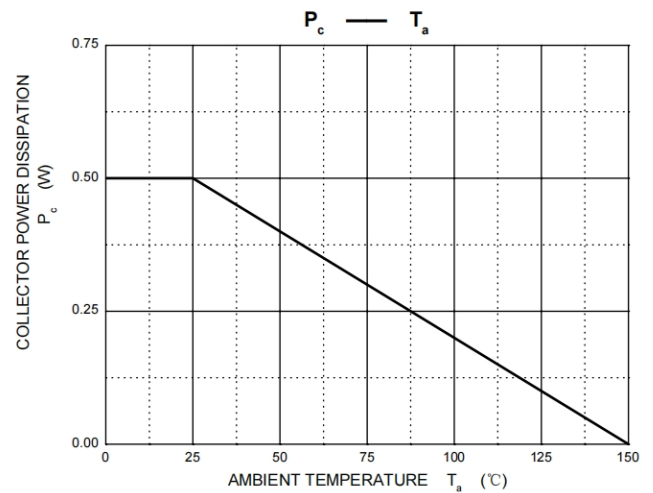
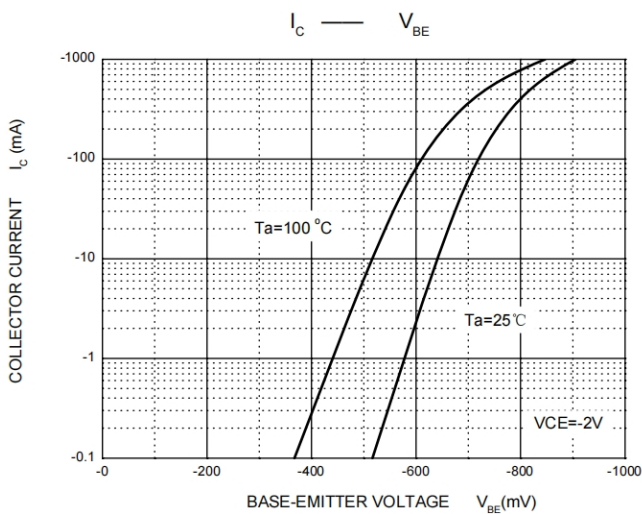
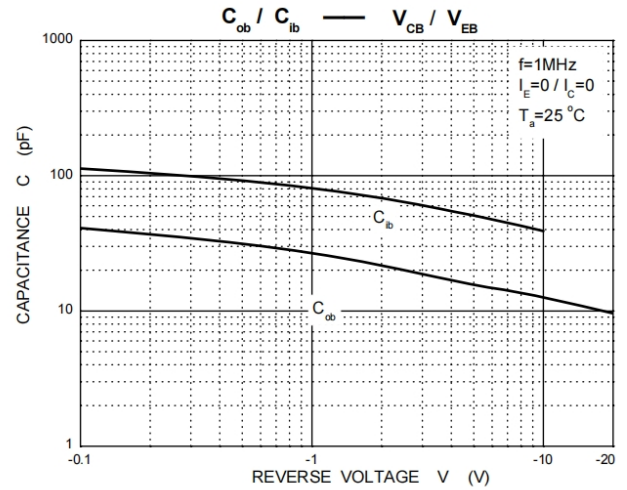
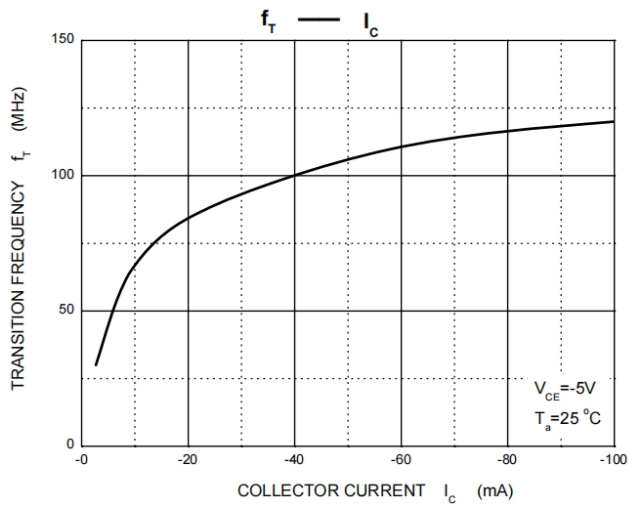
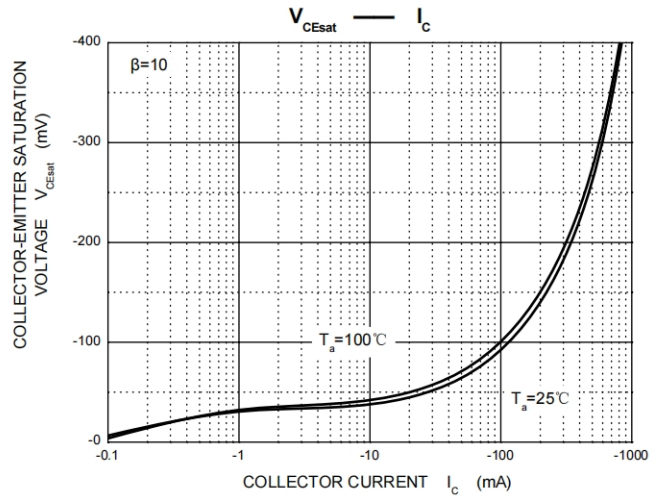
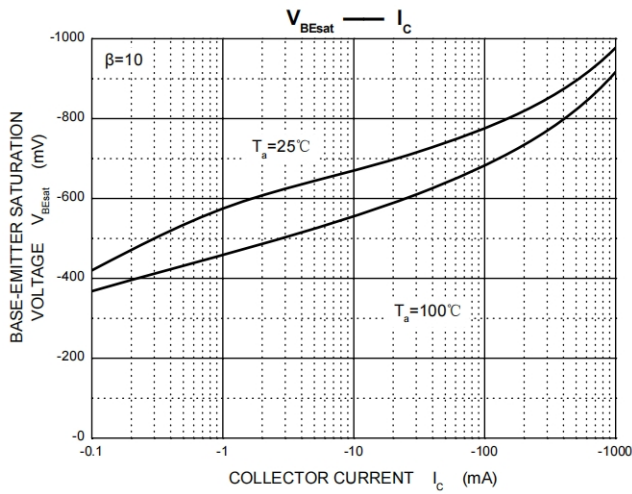
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu\text{A}, I_E = 0$	BCX51	-45		V
			BCX52	-60		
			BCX53	-100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	BCX51	-45		V
			BCX52	-60		
			BCX53	-80		
Emitter-base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

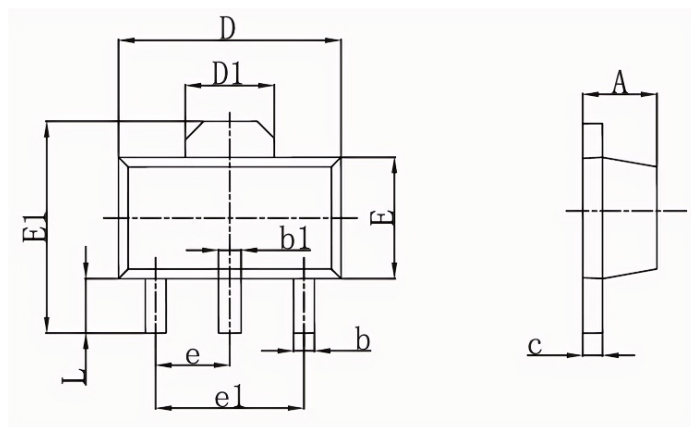
Typical Characteristics





Package Outline Dimensions

SOT-89



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

*Important Usage Information and Disclaimer

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