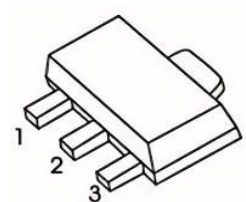


TRANSISTOR (NPN)

Parameter	Value	Unit
V_{CEO}	45,60,80	V
I_C	1.0	A

1. BASE
2. COLLECTOR
3. EMITTER



SOT-89

Features

- PNP Complements to BCX51,BCX52,BCX53
- Low Voltage
- High Current

Applications

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

Device Code		
BA=BCX54	BC=BCX54-10	BD=BCX54-16
BE=BCX55	BG=BCX55-10	BM=BCX55-16
BH=BCX56	BK=BCX56-10	BL=BCX56-16

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

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCX54	45	V
		BCX55	60	
		BCX56	100	
V_{CEO}	Collector-Emitter Voltage	BCX54	45	V
		BCX55	60	
		BCX56	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	°C/W
T_J	Junction Temperature		150	°C
T_{STG}	Storage Temperature		-55~+150	°C

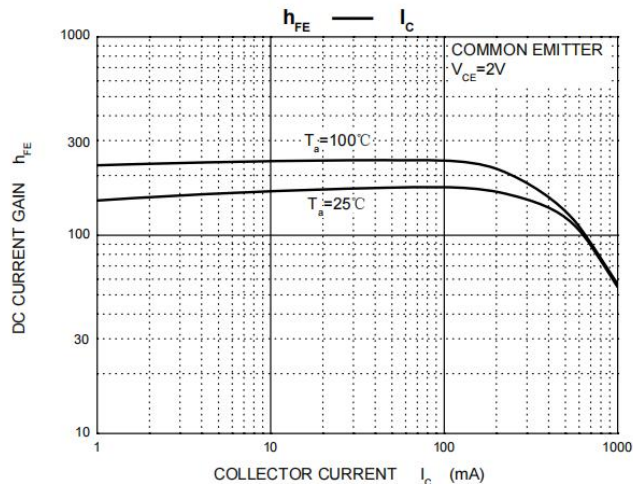
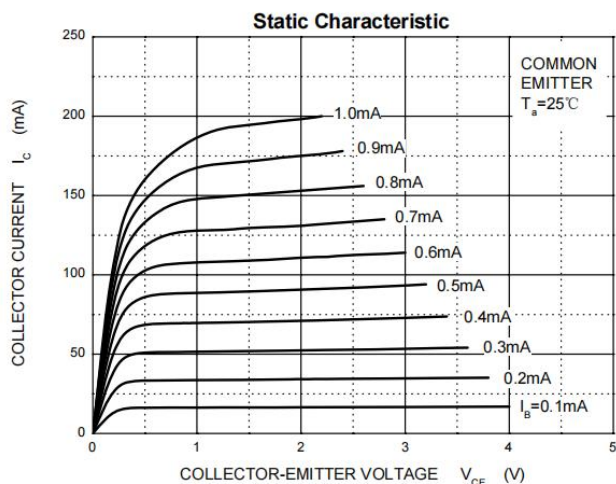
Electrical Characteristics (Ta=25°C unless otherwise noted)

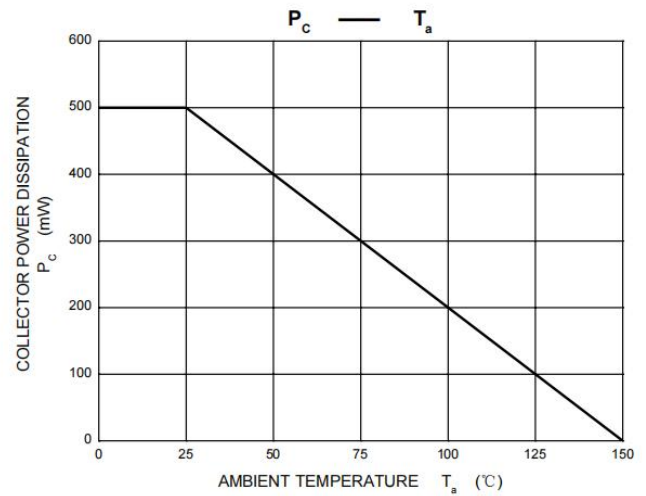
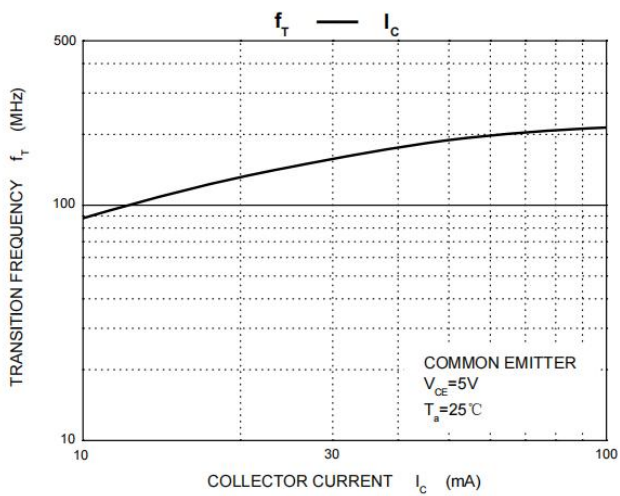
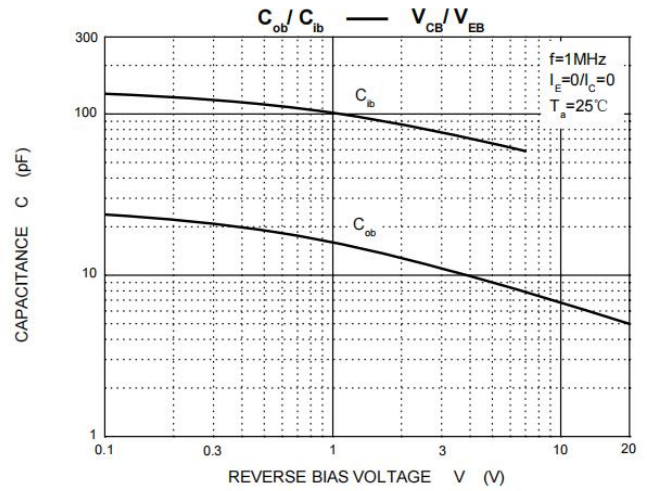
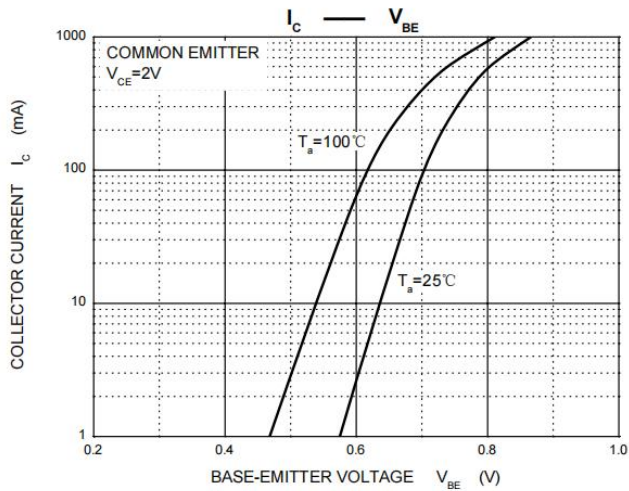
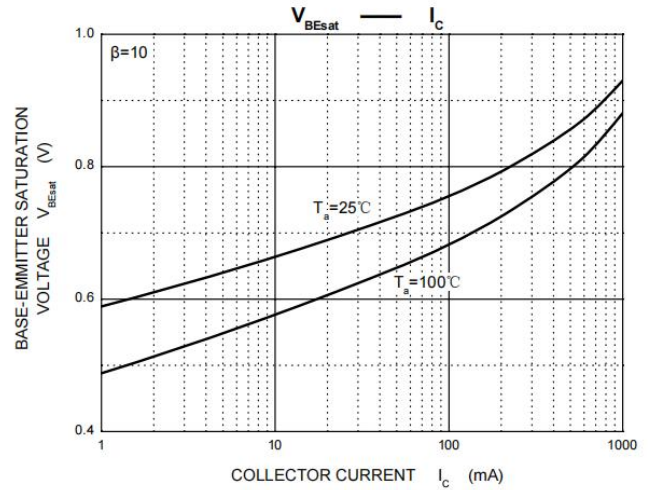
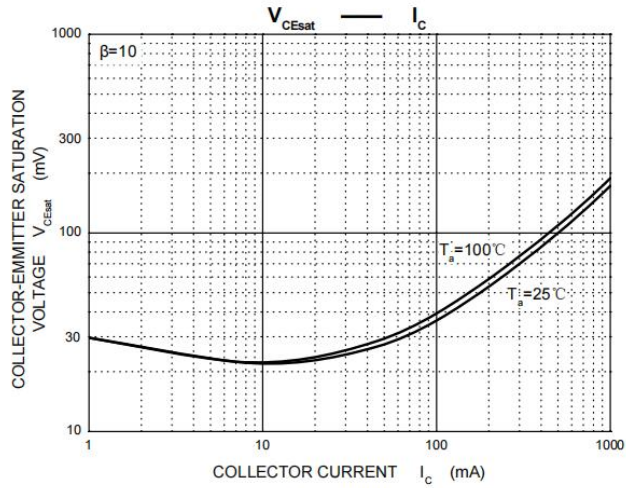
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	BCX54	45		V
			BCX55	60		
			BCX56	100		
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	BCX54	45		V
			BCX55	60		
			BCX56	80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=5mA$	40			
	$h_{FE(2)}$	$V_{CE}=2V, I_C=150mA$	63		250	
	$h_{FE(3)}$	$V_{CE}=2V, I_C=0.5A$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=0.5A, I_B=50mA$			0.5	V
Base-emitter voltage	V_{BE}	$V_{CE}=2V, I_C=0.5A$			1	V
Transition frequency	f_T	$V_{CE}=5V, I_C=10mA, f=100MHz$		130		MHz

CLASSIFICATION OF $h_{FE(2)}$

Rank	BCX54 BCX55 BCX56	BCX54-10 BCX55-10 BCX56-10	BCX54-16 BCX55-16 BCX56-16
Range	63 -250	63 -160	100 -250

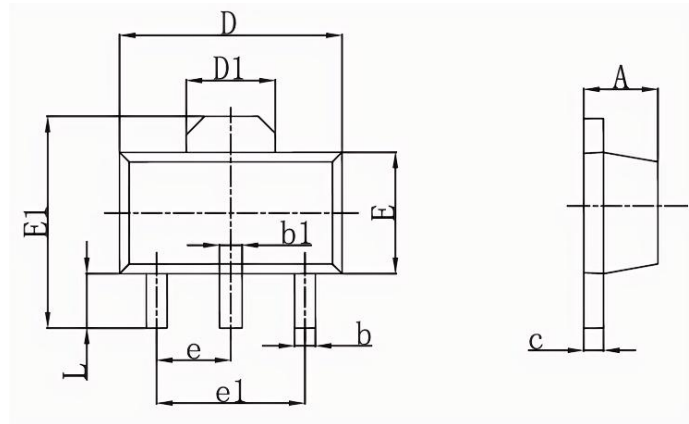
Typical Characteristics





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

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