

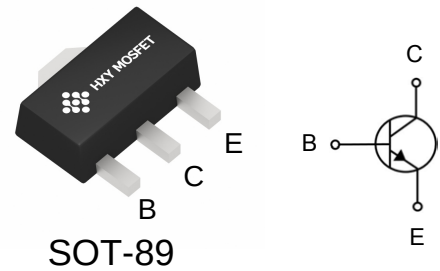


Features

- NPN Complements to BCX53-10TF
- Low Voltage
- High Current

Applications

- Driver Stages of Audio Amplifiers



Package Marking and Ordering Information

Product ID	Pack	Packaging	Qty(PCS)
BCX56-10TF	SOT-89	Tape	1000

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1	A
I_B	Base Current	0.1	A
I_{BM}	Peak base Current (tp <1ms)	0.2	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Collector Power Dissipation	250	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55-+150	°C
T_{opr}	Operation Temperature Range	-25-+125	°C

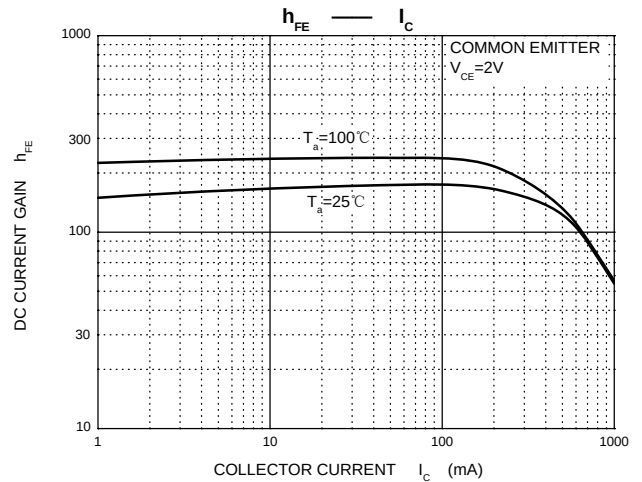
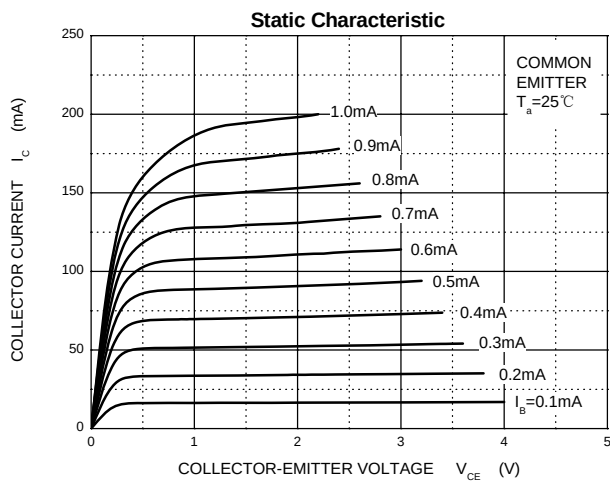


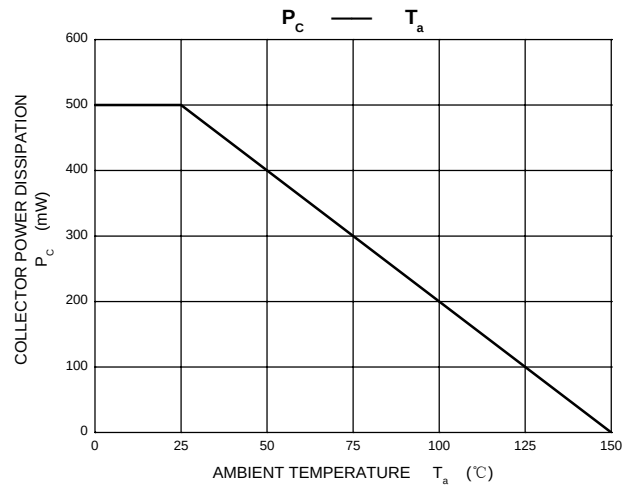
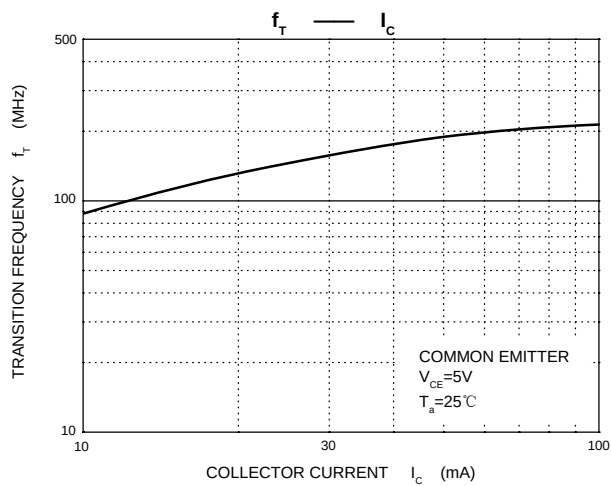
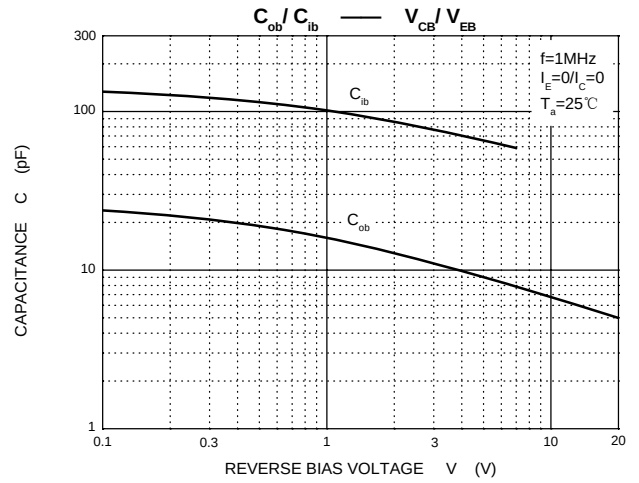
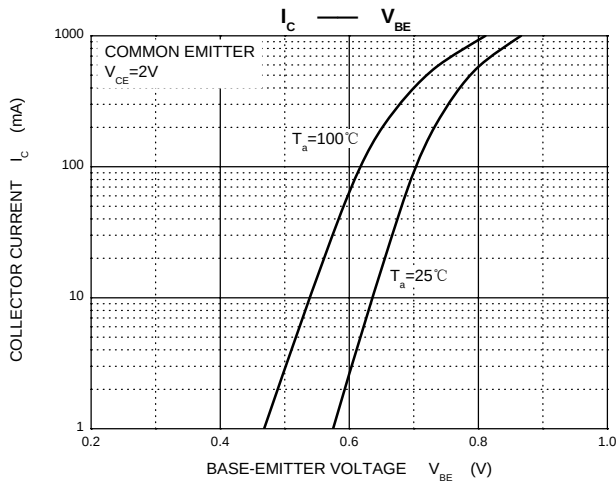
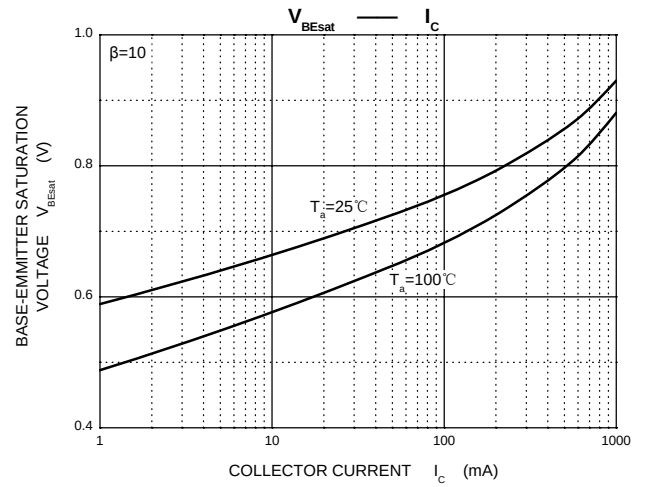
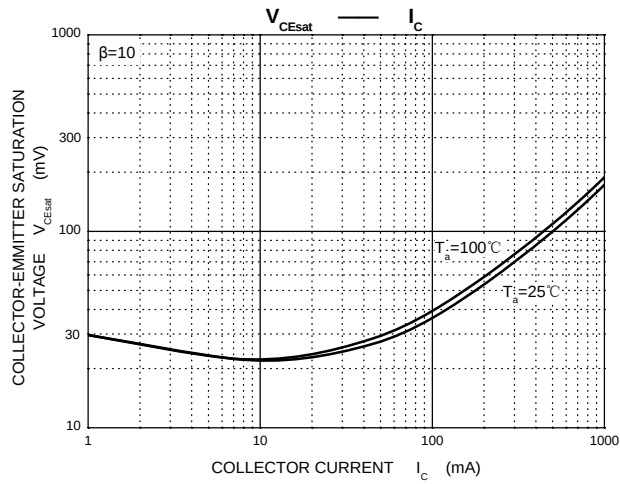
Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=10mA, I_B=0$	80			V
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		160	
	$h_{FE(3)}^*$	$V_{CE}=2V, I_C=0.5A$	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

* Pulse Test

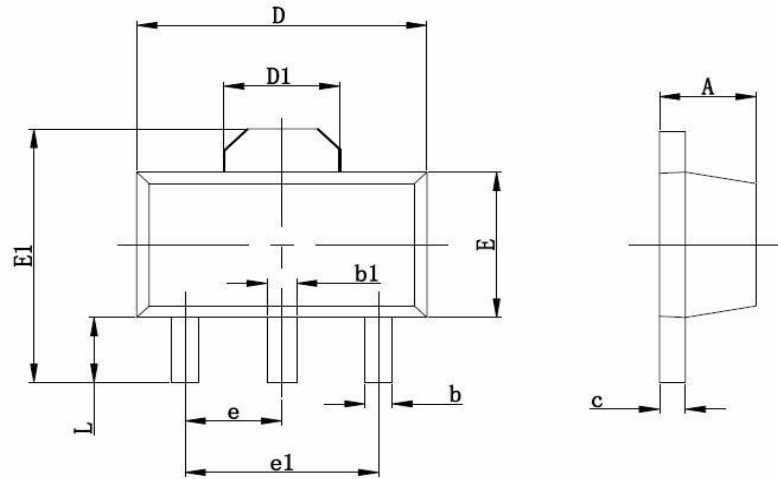
Typical Characteristics







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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