BCX54,BCX55,BCX56 TRANSISTOR (NPN)

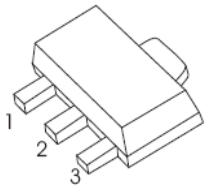
FEATURES

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

APPLICATIONS

- Driver Stages of Audio Amplifiers

SOT- 89- 3L



1. BASE
2. COLLECTOR
3. EMITTER

MARKING: BCX54:BA, BCX54- 10:BC, BCX54- 16:BD
BCX55:BE, BCX55- 10:BG, BCX55- 16BM
BCX56:B H, BCX56- 10:BK, BCX56- 16:BL

MAXIMUM RATINGS (T_a=25℃ 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	℃/W
T_j	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55~+150	℃

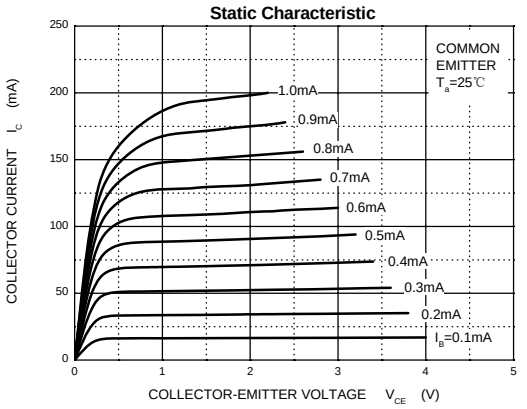
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	BCX54	45			V
			BCX55	60			
			BCX56	100			
Collector-emitter breakdown voltage	$V_{(BR)CEO*}$	I_C=10mA,I_B=0	BCX54	45			V
			BCX55	60			
			BCX56	80			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,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

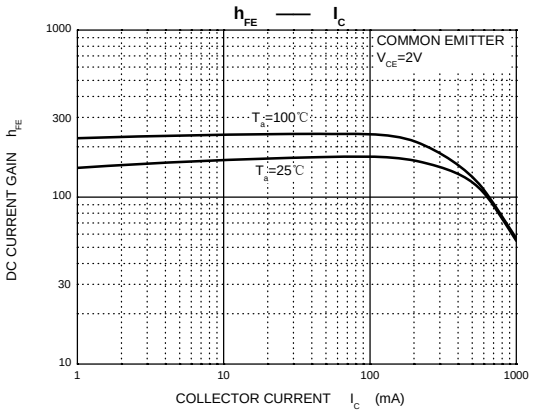
CLASSIFICATION OF $h_{FE(2)}$

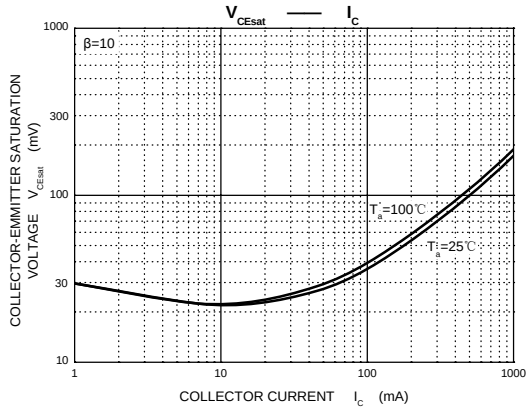
RANK	BCX54 BCX55 BCX56	BCX54-10 BCX55-10 BCX56-10	BCX54-16 BCX55-16 BCX56-16
RANGE	63 – 250	63 – 160	100 – 250

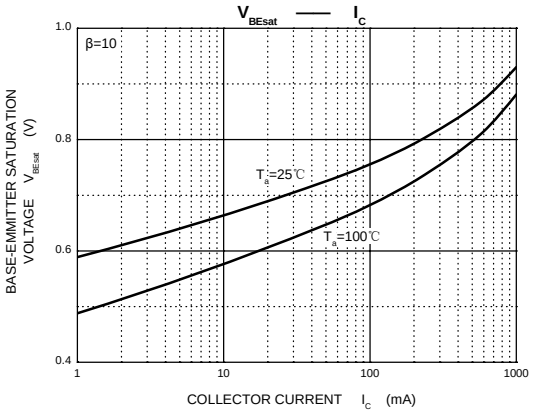
***** Pulse Test

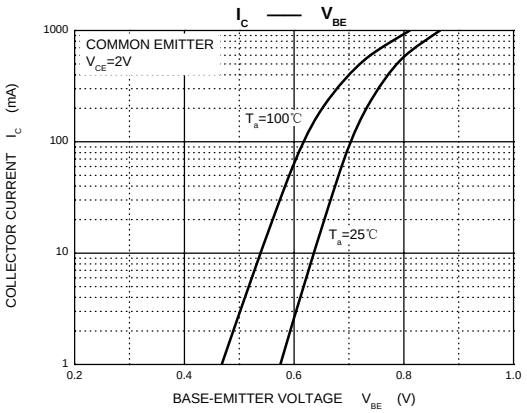
Typical Characteristics

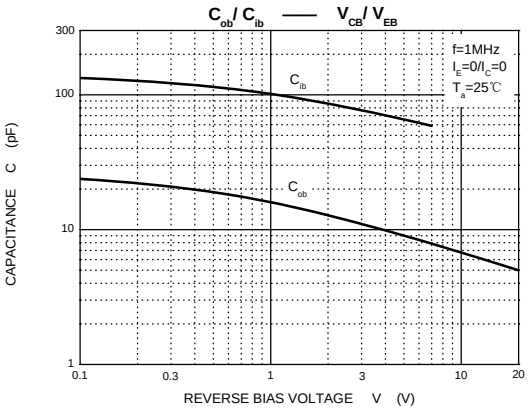


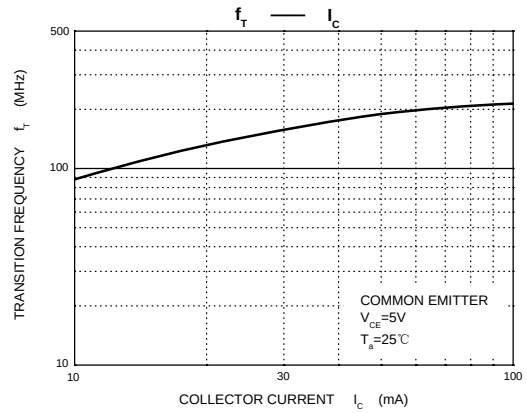


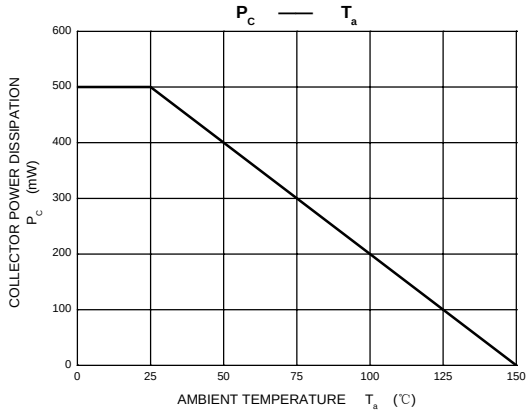




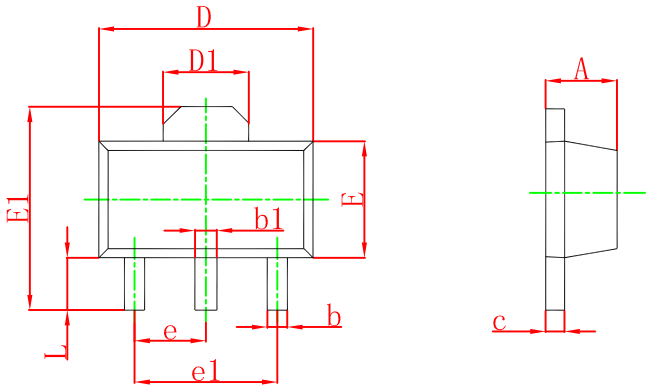






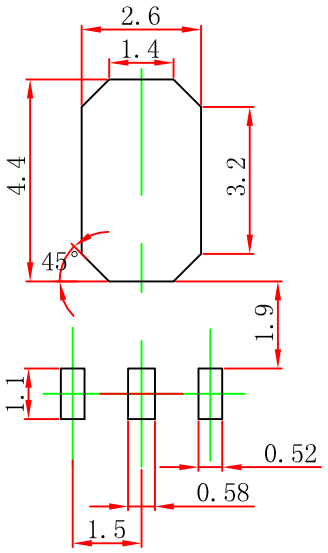


SOT-89-3L Package Outline Dimensions



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

SOT-89-3L Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.