



## SOT-89-3L Plastic-Encapsulate Transistors

### BCX54,BCX55,BCX56 TRANSISTOR (NPN)

#### FEATURES

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

#### APPLICATIONS

- Driver Stages of Audio Amplifiers

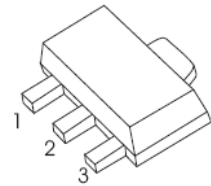
**MARKING:BCX54:BA, BCX54-10:BC, BCX54-16:BD**  
**BCX55:BE, BCX55-10:BG, BCX55-16BM**  
**BCX56:B H, BCX56-10:BK, BCX56-16:BL**

#### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	BCX54	45
		BCX55	60
		BCX56	100
V <sub>CEO</sub>	Collector-Emitter Voltage	BCX54	45
		BCX55	60
		BCX56	80
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current	1	A
P <sub>C</sub>	Collector Power Dissipation	500	mW
R <sub>θJA</sub>	Thermal Resistance From Junction To Ambient	250	°C/W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

#### SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



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	$V_{(BR)CEO^*}$	$I_C=10mA, I_B=0$	BCX54	45		V
			BCX55	60		
			BCX56	80		
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
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

# BCX54, BCX55, BCX56

