

## TRANSISTOR (PNP)

### FEATURES

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

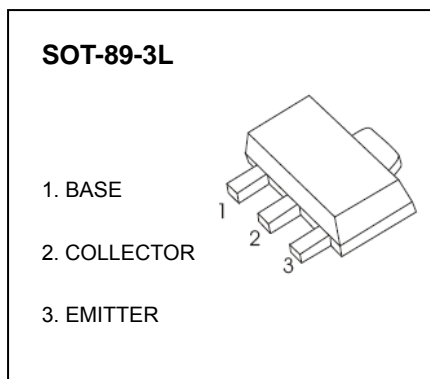
### APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

**MARKING:BCX51:AA, BCX51-10:AC, BCX51-16:AD**  
**BCX52:AE, BCX52-10:AG, BCX52-16:AM**  
**BCX53:AH, BCX53-10:AK, BCX53-16:AL**

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

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	BCX51	-45
		BCX52	-60
		BCX53	-100
V <sub>CEO</sub>	Collector-Emitter Voltage	BCX51	-45
		BCX52	-60
		BCX53	-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



**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> =-100μA, I <sub>E</sub> =0	BCX51	-45		V
			BCX52	-60		
			BCX53	-100		
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	BCX51	-45		V
			BCX52	-60		
			BCX53	-80		
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100μA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-30V, I <sub>E</sub> =0			-0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0			-0.1	μA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-5mA	63			
	h <sub>FE(2)</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-150mA	63		250	
	h <sub>FE(3)</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-0.5A	40			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-0.5A, I <sub>B</sub> =-50mA			-0.5	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-0.5A			-1	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA, f=100MHz		50		MHz

**CLASSIFICATION OF h<sub>FE(2)</sub>**

RANK	BCX51	BCX51-10	BCX51-16
	BCX52	BCX52-10	BCX52-16
	BCX53	BCX53-10	BCX53-16
RANGE	63 - 250	63 - 160	100 - 250