

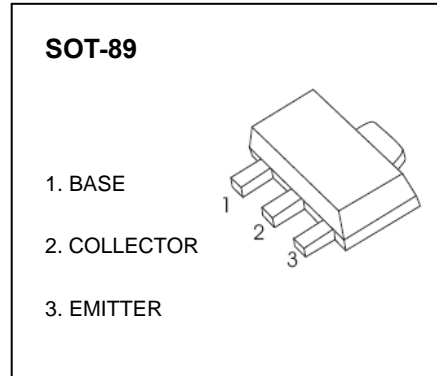


### SOT-89 Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

#### FEATURES

- NPN Complements to BCX54,BCX55,BCX56
- Low Voltage
- High Current
- **Pb-Free package is available**  
RoHS product for packing code suffix "G"  
Halogen free product for packing code suffix "H"



#### APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

**MARKING:BCX51:AA, BCX51-10:AC, BCX51-16:AD**  
**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>CBO</sub>	Collector-Base Voltage	BCX51	-45
		BCX53	-100
V <sub>CEO</sub>	Collector-Emitter Voltage	BCX51	-45
		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



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#### 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
			BCX53	-100		
Collector-emitter breakdown voltage	V <sub>(BR)CEO*</sub>	I <sub>C</sub> =-10mA, I <sub>B</sub> =0	BCX51	-45		V
			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

\* Pulse Test

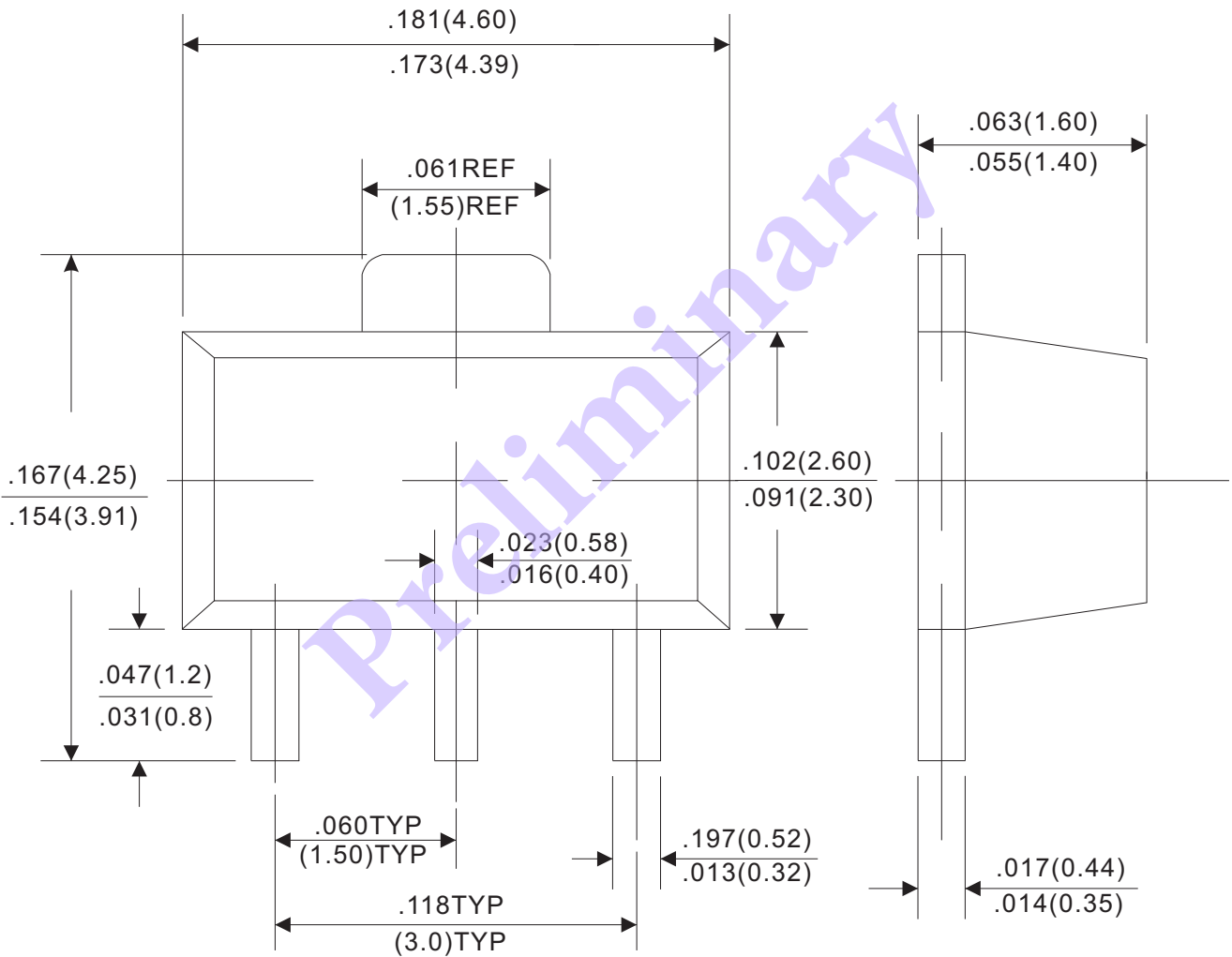
#### CLASSIFICATION OF h<sub>FE(2)</sub>

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



# Outline Drawing

# SOT-89



Dimensions in inches and (millimeters)

Rev.C