

Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURES

- NPN Complements to BCX54U,BCX55U,BCX56U
- Low Voltage
- High Current

APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

MARKING:

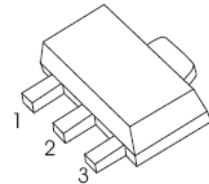
BCX51U:AA, BCX51-10U:AC, BCX51-16U:AD

BCX52U:AE, BCX52-10U:AG, BCX52-16U:AM

BCX53U:AH, BCX53-10U:AK, BCX53-16U:AL

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCX51U	-45	V
		BCX52U	-60	
		BCX53U	-100	
V_{CEO}	Collector-Emitter Voltage	BCX51U	-45	V
		BCX52U	-60	
		BCX53U	-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	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range		-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	BCX51U	-45		V
			BCX52U	-60		
			BCX53U	-100		
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =-10mA, I _B =0	BCX51U	-45		V
			BCX52U	-60		
			BCX53U	-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	63			
	h _{FE(2)} *	V _{CE} =-2V, I _C =-150mA	63		250	
	h _{FE(3)} *	V _{CE} =-2V, I _C =-0.5A	40			
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		50		MHz

* Pulse Test

CLASSIFICATION OF h_{FE(2)}

RANK	BCX51U BCX52U BCX53U	BCX51-10U BCX52-10U BCX53-10U	BCX51-16U BCX52-16U BCX53-16U
RANGE	63-250	63-160	100-250

Typical Characteristics

