

FEATURES

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

APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

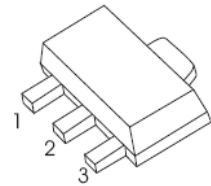
MARKING:BCX51:AA, BCX51-10:AC, BCX51-16:AD
BCX52:AE, BCX52-10:AG, BCX52-16:AM
BCX53:AH, BCX53-10:AK, BCX53-16:AL

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

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCX51	-45	V
		BCX52	-60	
		BCX53	-100	
V_{CEO}	Collector-Emitter Voltage	BCX51	-45	V
		BCX52	-60	
		BCX53	-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	$^{\circ}\text{C}/\text{W}$
T_j	Junction Temperature		150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature		-55~+150	$^{\circ}\text{C}$

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER



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	BCX51	-45		V
			BCX52	-60		
			BCX53	-100		
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	BCX51	-45		V
			BCX52	-60		
			BCX53	-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

CLASSIFICATION OF h_{FE(2)}

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