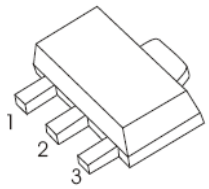
TRANSISTOR (NPN)

SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

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:BH, BCX56-10:BK, BCX56-16:BL

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BCX54	45	V
		BCX55	60	
		BCX56	100	
V_{CEO}	Collector-Emitter Voltage	BCX54	45	V
		BCX55	60	
		BCX56	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	℃/W
T_j	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	BCX54	45			V
			BCX55	60			
			BCX56	100			
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	BCX54	45			V
			BCX55	60			
			BCX56	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		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