JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

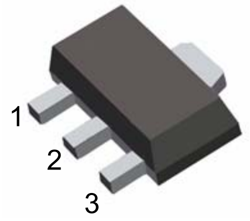
SOT-89 Plastic-Encapsulate Transistors

SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



BCX54,BCX55,BCX56 TRANSISTOR(NPN)

FEATURES

- High current
- Low voltage
- Medium power general purposes
- Driver stages of audio amplifiers.

MAKING: BCX54:BA BCX54-10:BC BCX54-16:BD
BCX55:BE BCX55-10:BG BCX55-16:BM
BCX56:BH BCX56-10:BK BCX56-16:BL

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter		Value	Units
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 -Continuous		1	A
P_C	Collector Power Dissipation		500	mW
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-65-150	℃

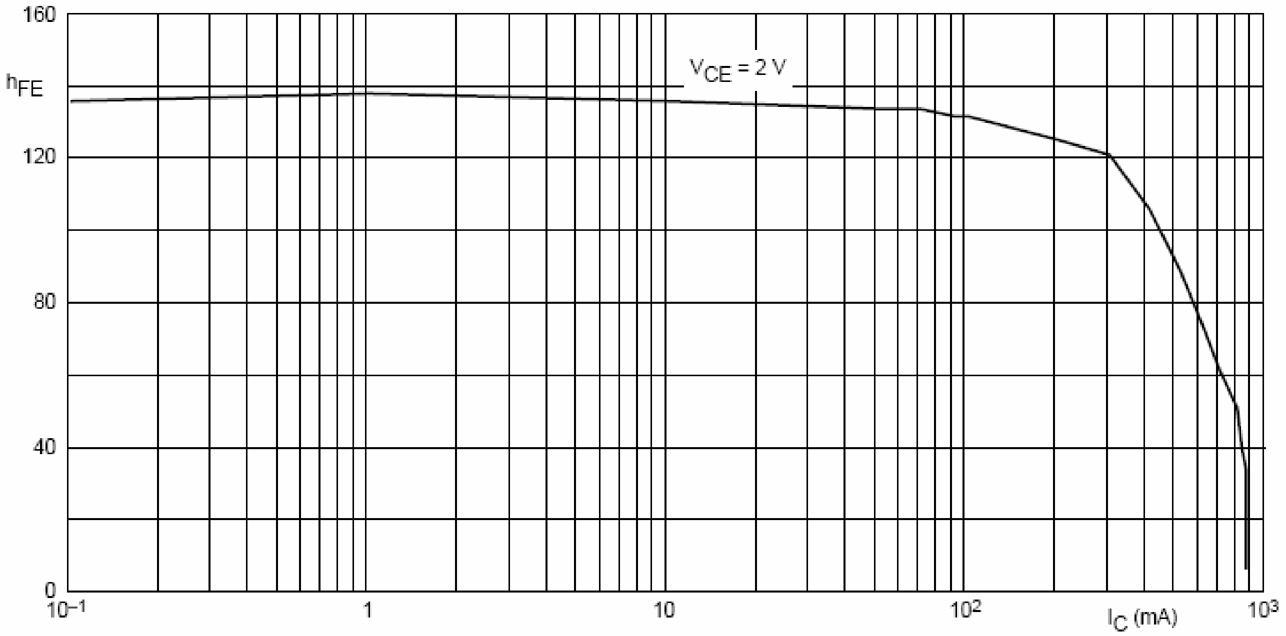
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

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			
			BC56	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=500mA		25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA,I_B=-50mA				0.5	V
Base-emitter voltage	V_{BE}	V_{CE}=2V,I_C=500mA				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**

Typical Characteristics



DC current gain; typical values.