

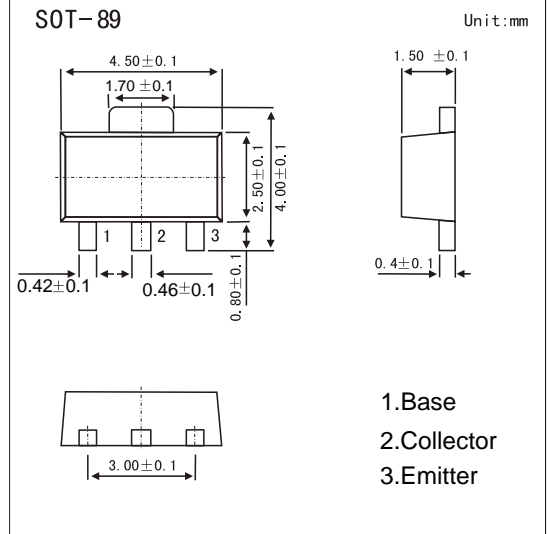
## SOT-89 Plastic-Encapsulate Transistors

### Features

- High current (max. 1 A).
- Low voltage (max. 80 V).

### MECHANICAL DATA

- Case style: SOT-89 molded plastic
- Mounting position: any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-base voltage	BCX54	45	V
	BCX55	60	V
	BCX56	100	V
Collector-emitter voltage	BCX54	45	V
	BCX55	60	V
	BCX56	80	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	1	A
Peak collector current	$I_{CM}$	1.5	A
Peak base current	$I_{BM}$	0.2	A
Total power dissipation	$P_{tot}$	1.3	W
Storage temperature	$T_{stg}$	-65 to +150	°C
Junction temperature	$T_j$	150	°C
Operating ambient temperature	$T_{amb}$	-65 to +150	°C
Thermal resistance from junction to ambient	$R_{th(j-a)}$	94	K/W
Thermal resistance from junction to solder point	$R_{th(j-s)}$	14	K/W

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 30\text{ V}, I_E = 0$			100	nA
		$V_{CB} = 30\text{ V}, I_E = 0; T_j = 125^\circ\text{C}$			10	uA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5\text{ V}, I_C = 0$			100	nA
DC current gain	$h_{FE}$	$I_C = 5\text{ mA}; V_{CE} = 2\text{ V}$	63			
		$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	63		250	
		$I_C = 500\text{ mA}; V_{CE} = 2\text{ V}$	40			
DC current gain BCX54-10,BCX55-10,BCX56-10 BCX54-16,BCX55-16,BCX56-16	$h_{FE}$	$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	63		160	
		$I_C = 150\text{ mA}; V_{CE} = 2\text{ V}$	100		250	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{ mA}; I_B = 50\text{ mA}$			0.5	V
Base to emitter voltage	$V_{BE}$	$I_C = 500\text{ mA}; V_{CE} = 2\text{ V}$			1	V
Transition frequency	$f_T$	$I_C = 10\text{ mA}; V_{CE} = 5\text{ V}; f = 100\text{ MHz}$		130		MHz
DC current gain ratio of the complementary pairs	$\frac{h_{FE}}{h_{FE}}$	$ I_C  = 150\text{ mA};  V_{CE}  = 2\text{ V}$		1.3	1.6	



# RATINGS AND CHARACTERISTIC CURVES

## ■ hFE Classification

TYPE	BCX54	BCX54-10	BCX54-16
Marking	BA	BC	BD

TYPE	BCX55	BCX55-10	BCX55-16
Marking	BE	BG	BM

TYPE	BCX56	BCX56-10	BCX56-16
Marking	BH	BK	BL

## ■ Typical Characteristics

