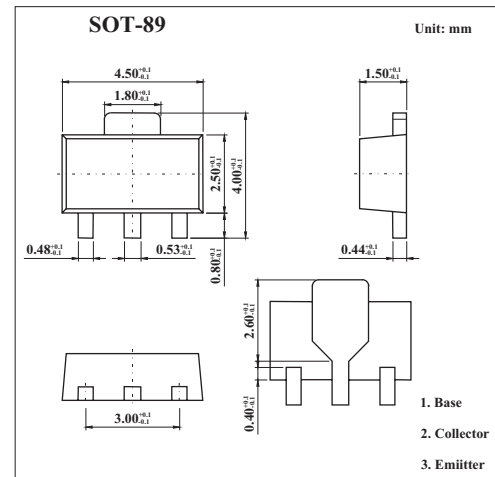


## PNP Silicon AF Transistors

## BCX69

## ■ Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	20	V
Collector-emitter voltage	$V_{CEO}$	25	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	1	A
Peak collector current	$I_{CM}$	2	A
Base current	$I_B$	100	mA
Peak base current	$I_{BM}$	200	mA
Total power dissipation	$P_{tot}$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-65 to +150	$^\circ\text{C}$
Junction - soldering point	$R_{thJS}$	$\leq 20$	K/W

## BCX69

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 30\text{ mA}, I_B = 0$	20			V
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\ \mu\text{A}, I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 1\ \mu\text{A}, I_C = 0$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB} = 25\text{ V}, I_E = 0$			100	nA
		$V_{CB} = 25\text{ V}, I_E = 0, T_A = 150^\circ\text{C}$			100	$\mu\text{A}$
DC current gain *	$h_{FE}$	$I_C = 5\text{ mA}, V_{CE} = 10\text{ V}$	50			
DC current gain *	BCX69	$I_C = 500\text{ mA}, V_{CE} = 1\text{ V}$	85		375	
	BCX69-10		85	100	160	
	BCX69-16		100	160	250	
	BCX69-25		160	250	375	
DC current gain *	$h_{FE}$	$I_C = 1\text{ A}, V_{CE} = 1\text{ V}$	60			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = 1\text{ A}, I_B = 100\text{ mA}$			0.5	V
Base-emitter voltage *	$V_{BE(ON)}$	$I_C = 5\text{ mA}, V_{CE} = 10\text{ V}$		0.6		
		$I_C = 1\text{ A}, V_{CE} = 1\text{ V}$			1	
Transition frequency	$f_T$	$I_C = 100\text{ mA}, V_{CE} = 5\text{ V}, f = 20\text{ MHz}$		100		MHz

\* Pulse test:  $t \leq 300\ \mu\text{s}$ ,  $D = 2\%$ .

■  $h_{FE}$  Classification

TYPE	BCX69	BCX69-10	BCX69-16	BCX69-25
Marking	CE	CF	CG	CH