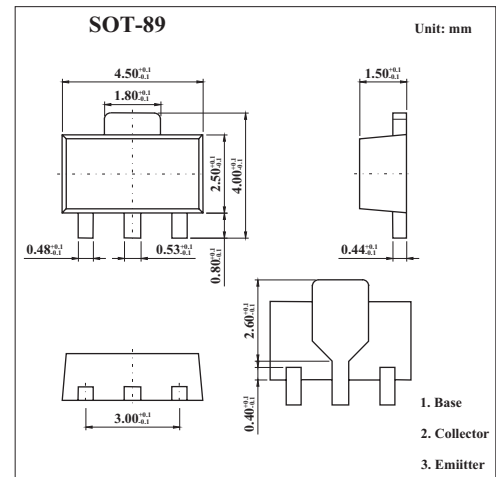


PNP Silicon AF Transistors

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_{CE0}	25	V
Emitter-base voltage	V_{EB0}	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}	≤ 20	K/W

BCX69■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditons	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	$V_{(BR)CBO}$	$I_C = 10\text{ }\mu\text{A}, I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 1\text{ }\mu\text{A}, I_C = 0$	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	μA
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