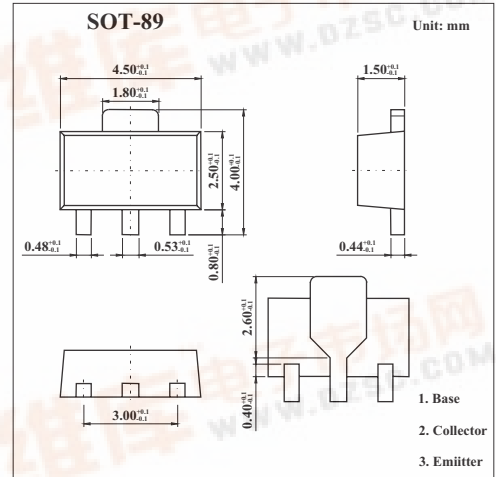


SMD Type Transistors

PNP Silicon AF Transistors  
BCX69

■ Features

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



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	20	V
Collector-emitter voltage	V <sub>CE0</sub>	25	V
Emitter-base voltage	V <sub>EB0</sub>	5	V
Collector current	I <sub>C</sub>	1	A
Peak collector current	I <sub>CM</sub>	2	A
Base current	I <sub>B</sub>	100	mA
Peak base current	I <sub>BM</sub>	200	mA
Total power dissipation	P <sub>tot</sub>	1	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C
Junction - soldering point	R <sub>thJS</sub>	≤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	$V_{(BR)CBO}$	$I_C = 10\ \mu\text{A}, I_B = 0$	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 *	hFE	$I_C = 5\text{ mA}, V_{CE} = 10\text{ V}$	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 *	hFE	$I_C = 1\text{ A}, V_{CE} = 1\text{ V}$	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:  $t \leq 300\ \mu\text{s}$ ,  $D = 2\%$ .

## ■ hFE Classification

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