



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-89 Plastic-Encapsulate Transistors

BCX69 TRANSISTOR (PNP)

FEATURES

- For general AF applications
- High collector current
- High current gain
- Low collector-emitter saturation voltage
- Complementary type: BCX68 (NPN)

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

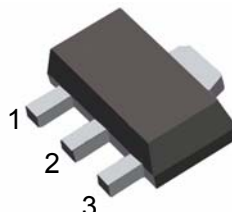
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-25	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
P_C	Collector Dissipation	0.8	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65-150	$^{\circ}\text{C}$

SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}$, $I_E=0$	-25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-30\text{mA}$, $I_B=0$	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-1\mu\text{A}$, $I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-25\text{V}$, $I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}$, $I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}^{1)}$	$V_{CE}=-1\text{V}$, $I_C=-500\text{mA}$	85		375	
			85		160	
			100		250	
	$h_{FE(2)}^{1)}$	$V_{CE}=-10\text{V}$, $I_C=-5\text{mA}$	50			
	$h_{FE(3)}^{1)}$	$V_{CE}=-1\text{V}$, $I_C=-1\text{A}$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-1\text{A}$, $I_B=-100\text{mA}$			-0.5	V
Base-emitter voltage	$V_{BE(ON)}^{1)}$	$I_C=-5\text{mA}$, $V_{CE}=-10\text{V}$ $I_C=-1\text{A}$, $V_{CE}=-1\text{V}$		-0.6	-1	V
Transition frequency	f_T	$V_{CE}=-5\text{V}$, $I_C=-100\text{mA}$ $f=20\text{MHz}$		100		MHz

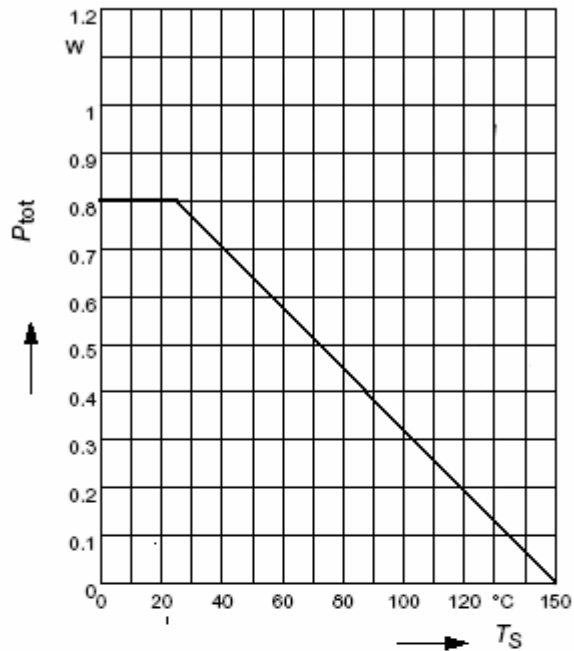
¹⁾ Pulse test: $t \leq 300\mu\text{s}$, $D = 2\%$

MARKING: BCX69=CE1 BCX69-10=CF1 BCX69-16=CG1 BCX69-25=CH1

Typical Characteristics

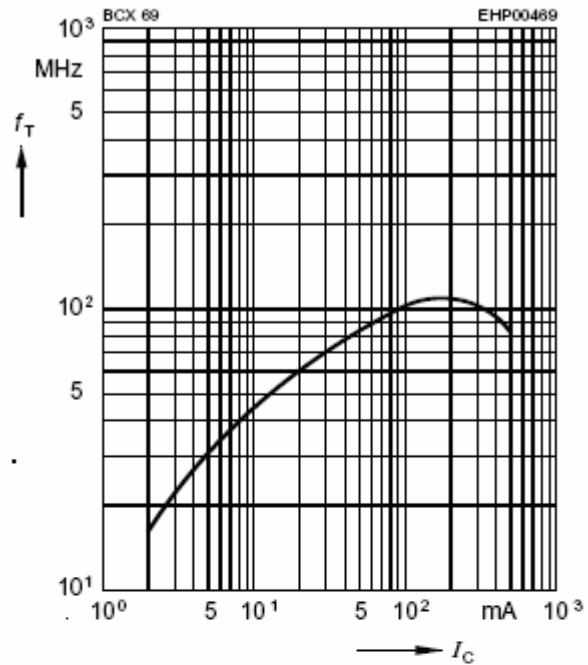
BCX69

Total power dissipation $P_{\text{tot}} = f(T_S)$



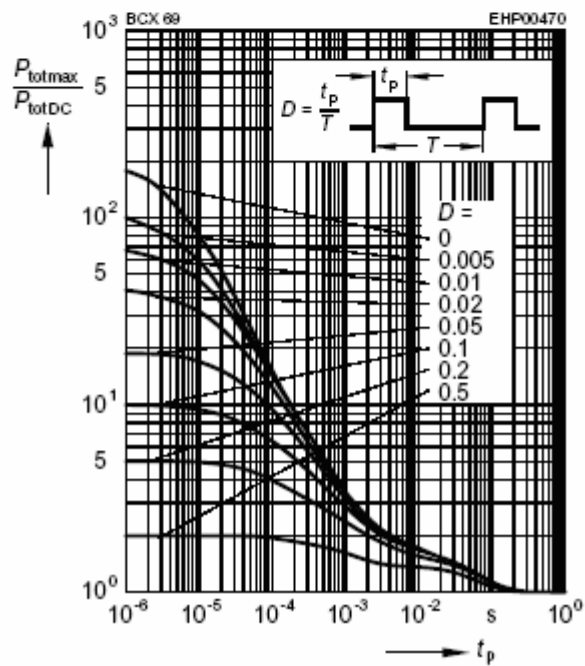
Transition frequency $f_T = f(I_C)$

$V_{\text{CE}} = 5\text{V}$



Permissible pulse load

$P_{\text{totmax}} / P_{\text{totDC}} = f(t_p)$



Collector cutoff current $I_{\text{CBO}} = f(T_A)$

$V_{\text{CB}} = 25\text{V}$

