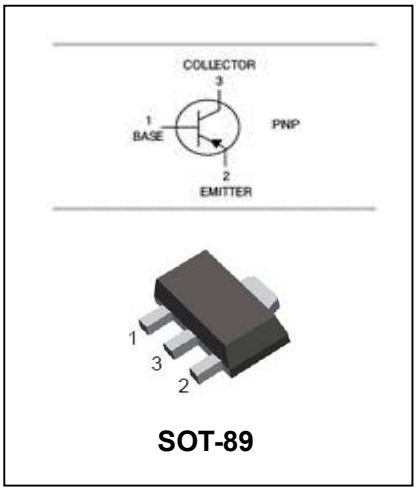
PNP Silicon AF Transistors BCX69

FEATURES

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.
- Complementsry type:BCX68.

Lead-free



SOT-89

ORDERING INFORMATION

Type No.	Marking	Package Code
BCX69	CE	SOT-89
BCX69-10	CF	SOT-89
BCX69-16	CG	SOT-89
BCX69-25	CH	SOT-89

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	Unit
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
I_{CM}	Collector Current -Peak	-2	A
I_B	Base Current	-0.1	A
I_{BM}	Peak Base Current	-0.2	A
P_D	Total Power Dissipation	1	W
T_j,T_{stg}	Junction and Storage Temperature	-65 to +150	℃

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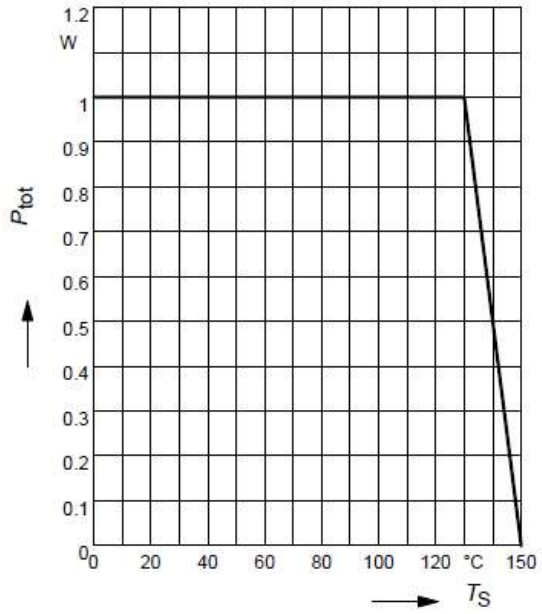
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA I_E=0	-25		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-30mA I_B=0	-20		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1μA I_C=0	-5		μV
Collector cut-off current	I_{CBO}	V_{CB}=-25V I_E=0 V_{CB}=-25V I_E=0,T_A=150℃		-100 -100	nA μA
DC current gain	h_{FE}	V_{CE}=-10V I_C=-5mA	50		
		V_{CE}=-1V I_C=-500mA BCX69 BCX69-10 BCX69-16 BCX69-25	85 85 100 160	375 160 250 375	
		V_{CE}=-1V I_C=-1A	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1A I_B=-100mA		-0.5	V
Base-emitter voltage	V_{BE}	I_C=-1A ,V_{CE}=-1V		-1	V
Transition frequency	f_T	V_{CE}=-5V, I_C=-100mA, f=20MHz	100		MHz

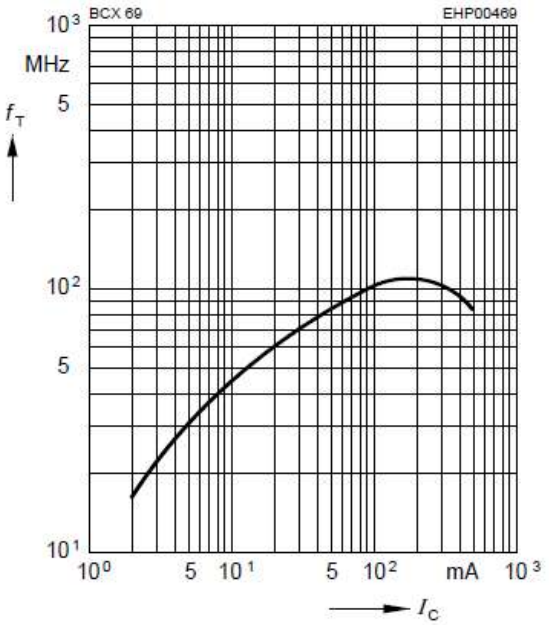
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

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



Transition frequency $f_T = f(I_C)$

V_{CE} = 5V



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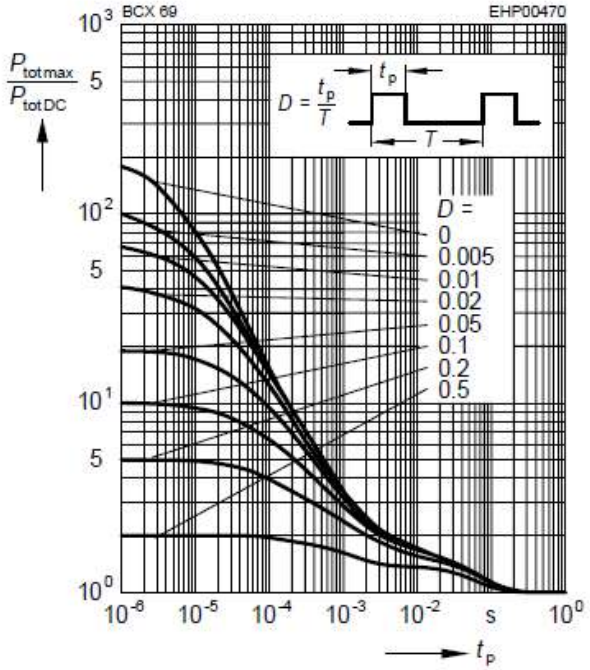
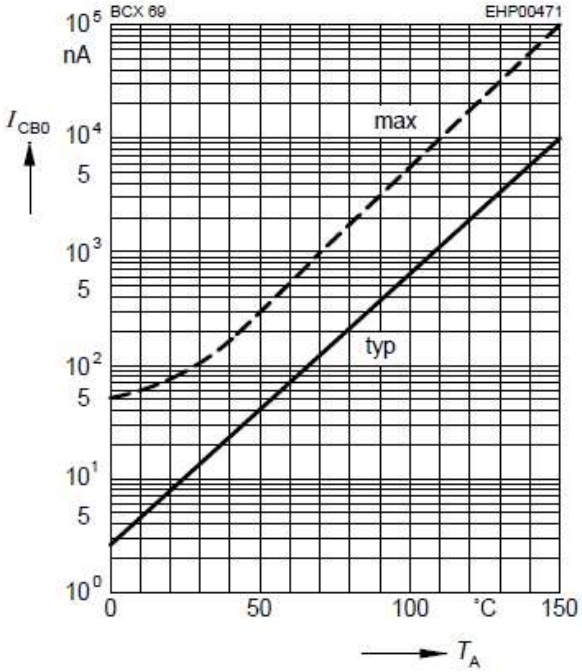
Permissible pulse load

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



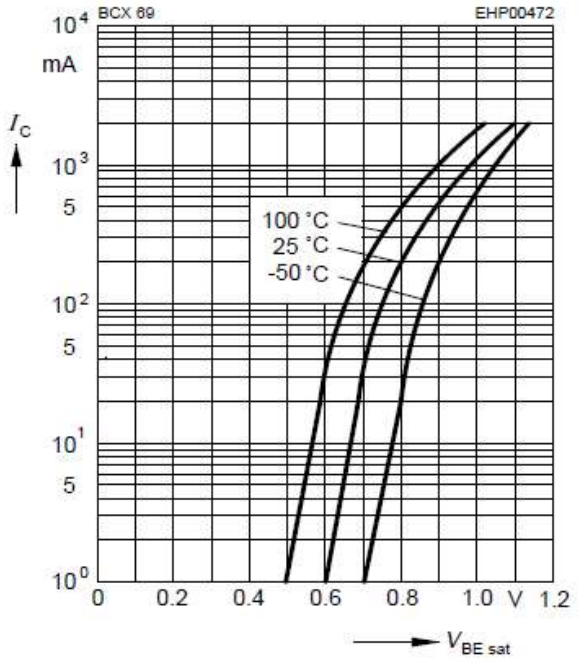
Collector cutoff current $I_{CBO} = f(T_A)$

V_{CB} = 25V



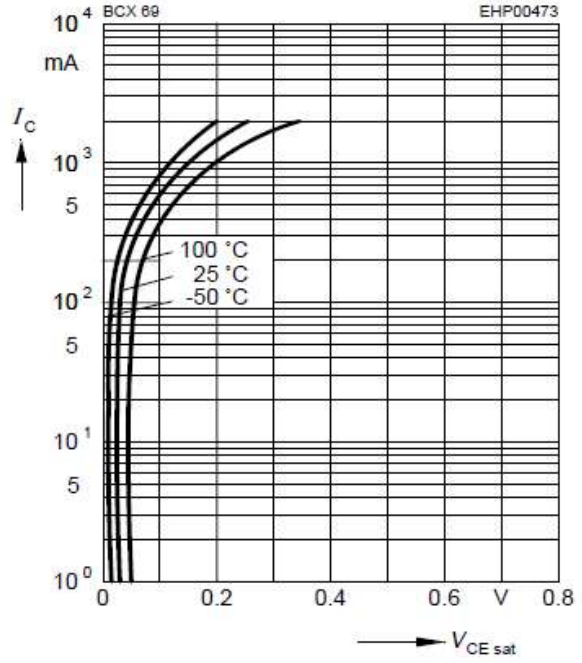
Base-emitter saturation voltage

$I_C = f(V_{BEsat})$, h_{FE} = 10



Collector-emitter saturation voltage

$I_C = f(V_{CEsat})$, h_{FE} = 10



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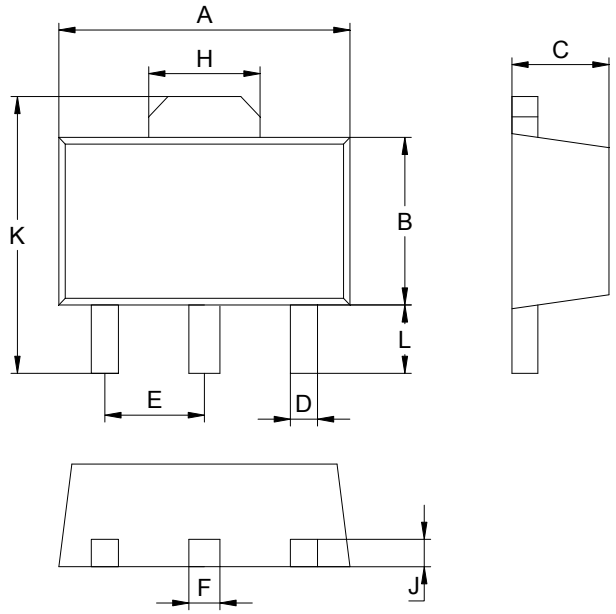
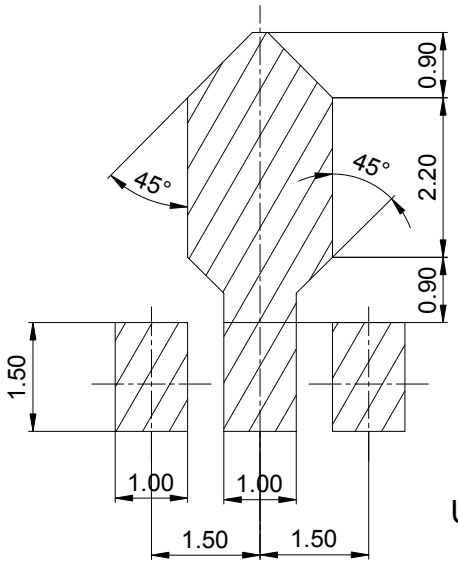
PACKAGE OUTLINE

Plastic surface mounted package SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.50 Typical	
D	0.40 Typical	
E	1.40	1.60
F	0.48 Typical	
H	1.60	1.80
J	0.40 Typical	
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit:mm

PACKAGE INFORMATION

Device	Package	Shipping
BCX69	SOT-89	1000/Tape&Reel