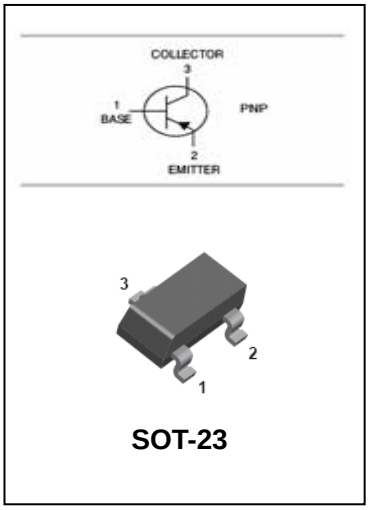
PNP General Purpose Amplifier BCW67/BCW68

FEATURES

Lead-free

- For general AF applications
- High current gain.
- Low collector-emitter saturation voltage.
- Complementary types:BCW65,BCW66(NPN).



SOT-23

APPLICATIONS

- This device is designed for general purpose amplifier and switching applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
BCW67A/B/C	DA/DB/DC	SOT-23
BCW68F/G/H	DF/DG/DH	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	BCW67	BCW68	Unit
V_{CBO}	Collector-Base Voltage	-45	-60	V
V_{CEO}	Collector-Emitter Voltage	-32	-45	V
V_{EBO}	Emitter-Base Voltage	--5	-5	V
I_{CM}	Peak collector current	-1		A
I_C	Collector Current -Continuous	-800		mA
P_D	Total Device Dissipation	330		mW
R_{thJS}	Junction thermal resistance	215		℃/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to+150		℃

PNP General Purpose Amplifier BCW67/BCW68

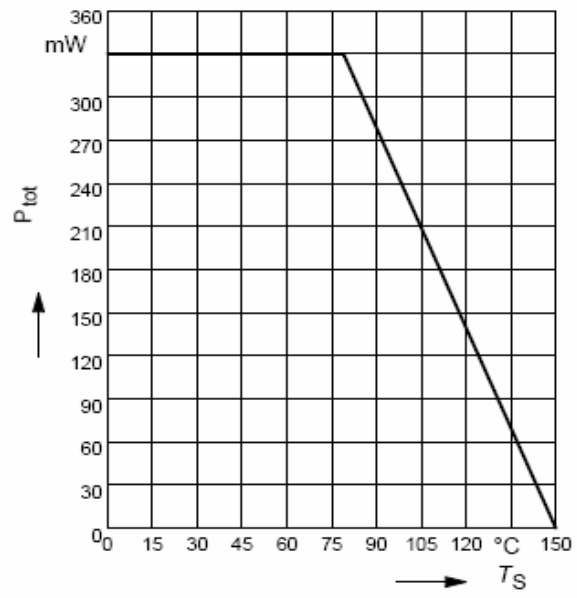
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-10μA I_E=0 BCW67 BCW68	-45 -60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA I_B=0 BCW67 BCW68	-32 -45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10μA I_C=0	-5		μV
Collector cut-off current	I_{CBO}	V_{CB}=-32V I_E=0 BCW67 V_{CB}=-45V I_E=0 BCW68		-20 -20	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V I_C=0		-20	nA
DC current gain A/F B/G C/H A/F B/G C/H	h_{FE}	V_{CE}=-10V I_C=-0.1mA	 35 50 80		
DC current gain A/F B/G C/H	h_{FE}	V_{CE}=-1V I_C=-10mA	75 120 180		
DC current gain A/F B/G C/H	h_{FE}	V_{CE}=-1V I_C=-100mA	100 160 250	160 250 350	250 400 630
DC current gain A/F B/G C/H	h_{FE}	V_{CE}=-2V I_C=-500mA	35 60 100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA I_B=-10mA I_C=-500mA I_B=-50mA		-0.3 -0.7	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-100mA I_B=-10mA I_C=-500mA I_B=-50mA		-1.25 -2	mV V
Transition frequency	f_T	V_{CE}=-5V I_C=-50mA f=20MHz	100		pF

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

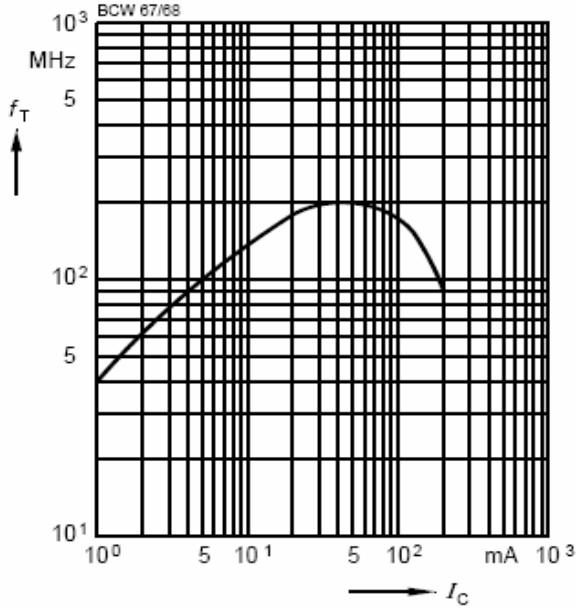
PNP General Purpose Amplifier BCW67/BCW68

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



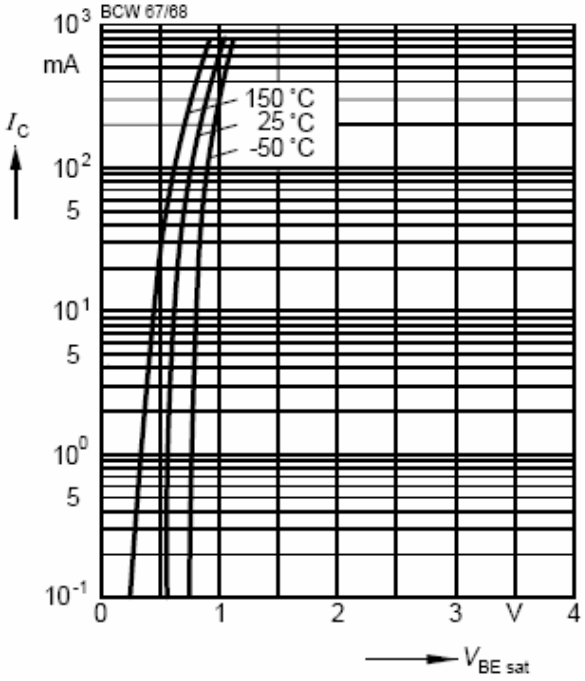
Transition frequency $f_T = f(I_C)$

V_{CE} = 5V



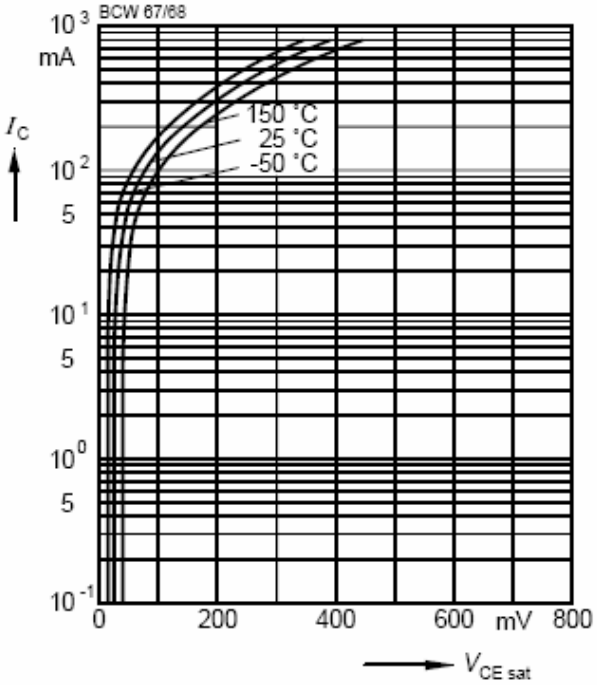
Base-emitter saturation voltage

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



Collector-emitter saturation voltage

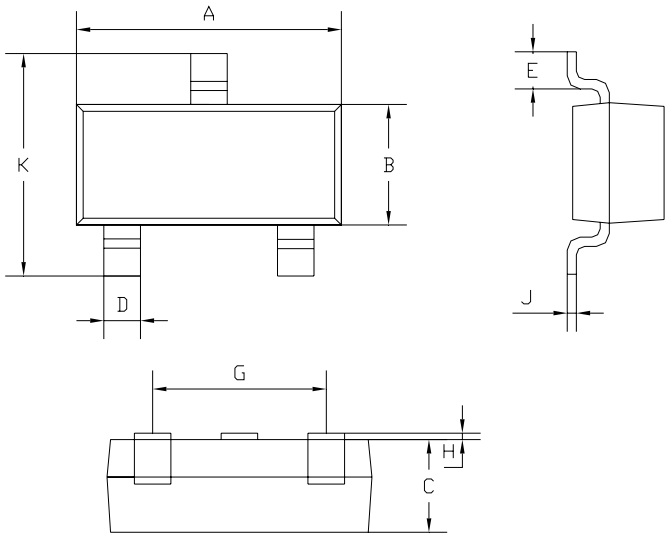
$I_C = f(V_{CEsat})$, h_{FE} = 10



PNP General Purpose Amplifier BCW67/BCW68

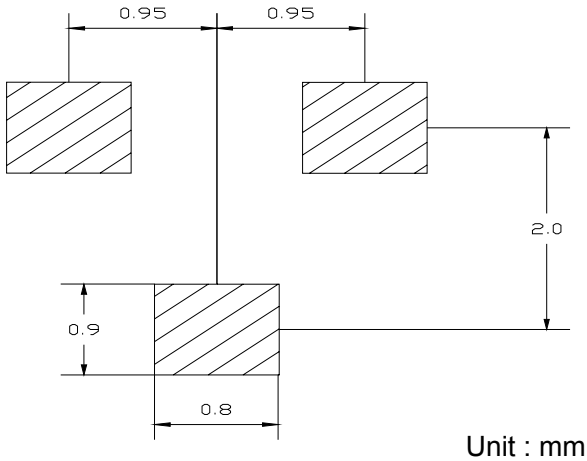
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BCW67/68	SOT-23	3000/Tape&Reel