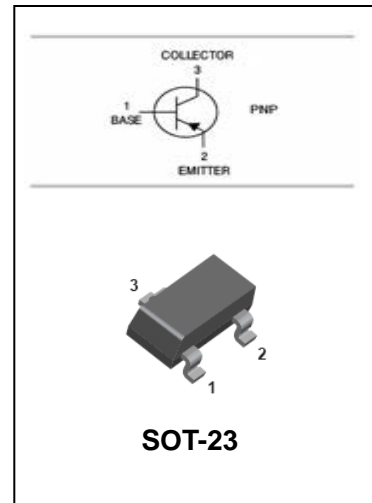


## PNP General Purpose Amplifier

## BCW67/BCW68

### FEATURES

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



### 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

□: none is for Lead Free package;

“G” is for Halogen Free package.

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	BCW67	BCW68	Unit
V <sub>CBO</sub>	Collector-Base Voltage	-45	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-32	-45	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	-5	V
I <sub>CM</sub>	Peak collector current	-1		A
I <sub>C</sub>	Collector Current -Continuous	-800		mA
P <sub>D</sub>	Total Device Dissipation	330		mW
R <sub>thJS</sub>	Junction thermal resistance	215		°C/W
T <sub>j</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-65 to +150		°C

## PNP General Purpose Amplifier

## BCW67/BCW68

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

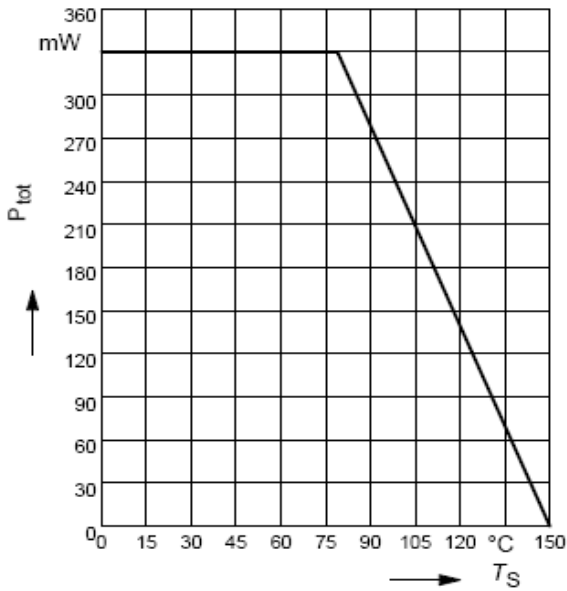
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A$ $I_E = 0$ BCW67 BCW68	-45 -60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA$ $I_B = 0$ BCW67 BCW68	-32 -45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A$ $I_C = 0$	-5			V
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	$V_{CE} = -10V$ $I_C = -0.1mA$	35			
	B/G		50			
	C/H		80			
DC current gain	A/F	$V_{CE} = -1V$ $I_C = -10mA$	75			
	B/G		120			
	C/H		180			
DC current gain	A/F	$V_{CE} = -1V$ $I_C = -100mA$	100	160	250	
	B/G		160	250	400	
	C/H		250	350	630	
DC current gain	A/F	$V_{CE} = -2V$ $I_C = -500mA$	35			
	B/G		60			
	C/H		100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA$ $I_B = -10mA$ $I_C = -500mA$ $I_B = -50mA$			-0.3 -0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100mA$ $I_B = -10mA$ $I_C = -500mA$ $I_B = -50mA$			-1.25	V
					-2	V
Transition frequency	$f_T$	$V_{CE} = -5V$ $I_C = -50mA$ $f = 20MHz$		200		MHz

**PNP General Purpose Amplifier**

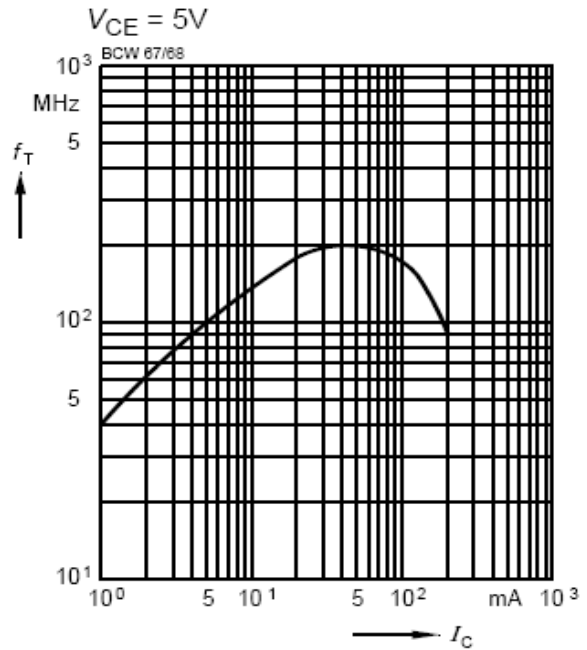
**BCW67/BCW68**

TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified

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

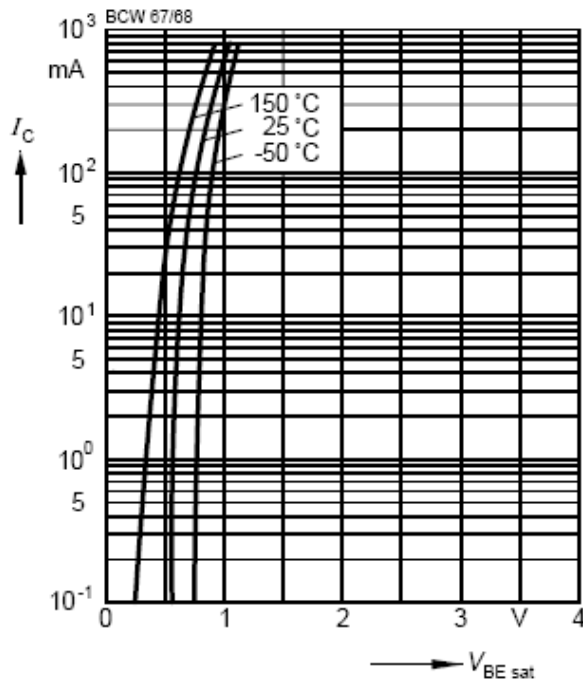


**Transition frequency  $f_T = f(I_C)$**



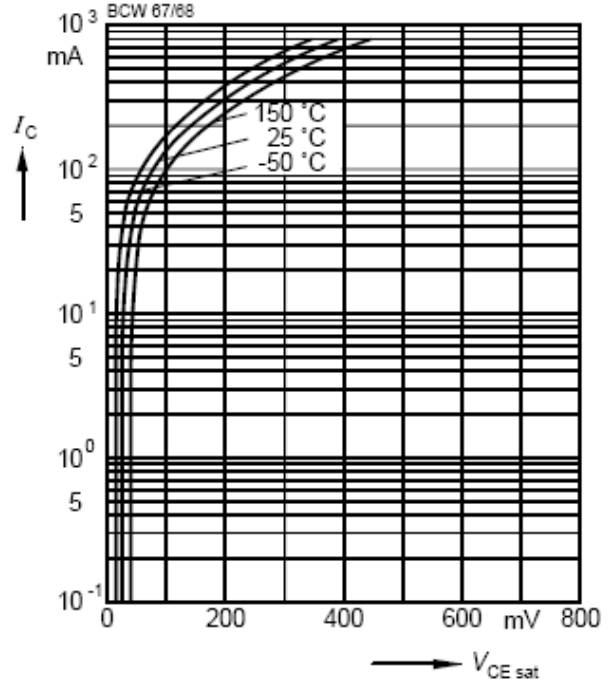
**Base-emitter saturation voltage**

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



**Collector-emitter saturation voltage**

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



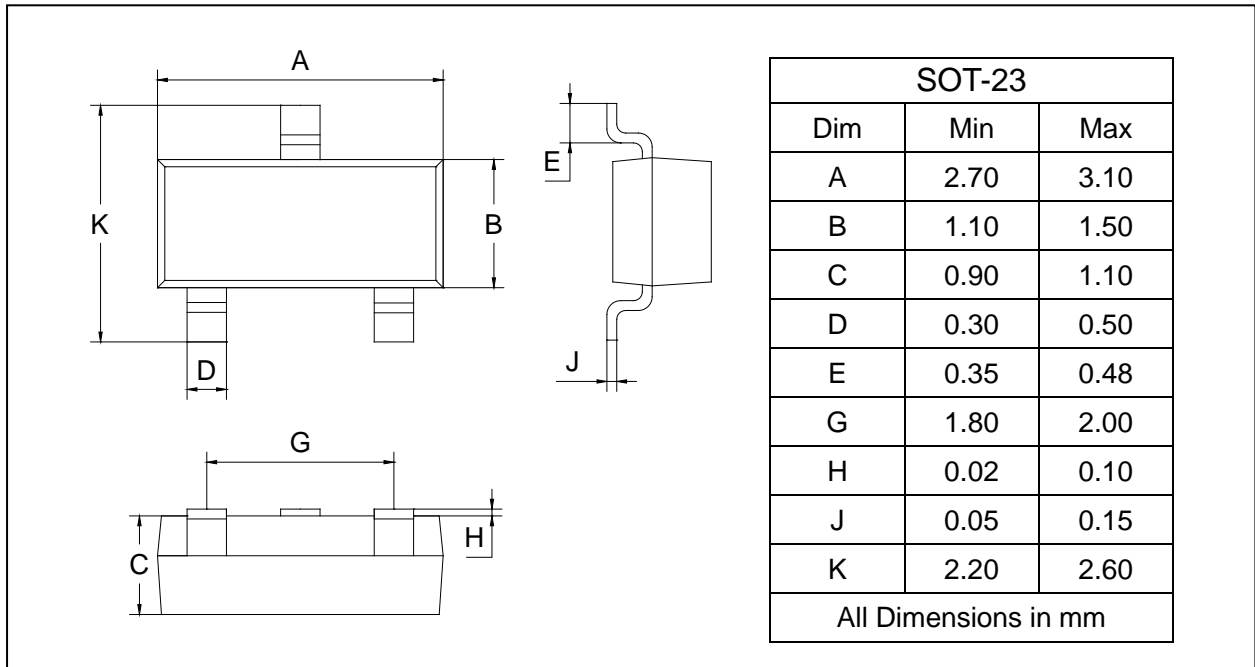
## PNP General Purpose Amplifier

## BCW67/BCW68

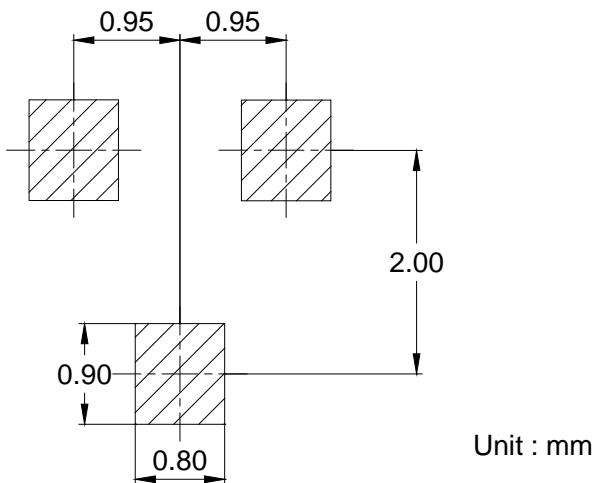
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

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