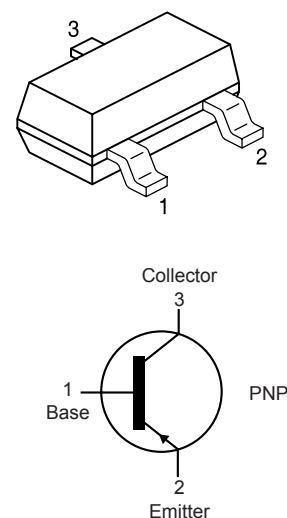


# PNP General Purpose Amplifier



## 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

## Pin Configuration:

1. Base
2. Emitter
3. Collector

## Maximum Ratings

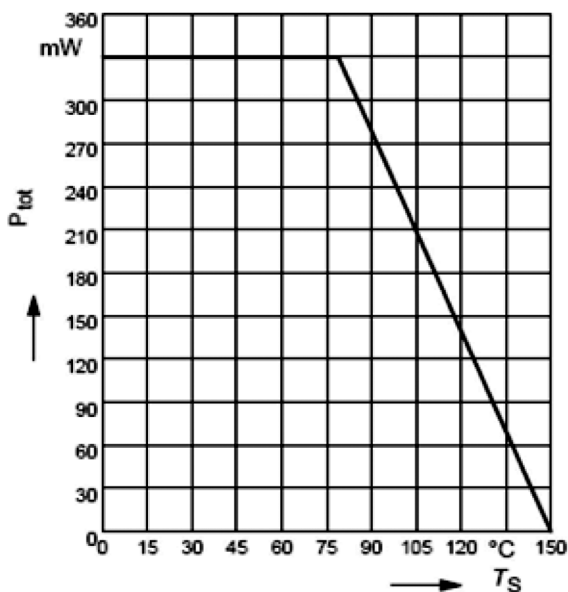
Parameter	Symbol	Value	Unit
Collector - Base Voltage	$V_{CBO}$	-60	V
Collector - Emitter Voltage	$V_{CEO}$	-45	
Emitter - Base Voltage	$V_{ebo}$	-5	
DC Collector Current	$I_C$	-1	A
Collector Current Continuous	$I_C$	-800	mA
Total Device Dissipation	$P_D$	330	mW
Junction Thermal Resistance	$R_{thJS}$	215	°C/W
Junction and Storage Temperature	$T_j, T_{stg}$	-65 to +150	°C

# PNP General Purpose Amplifier

## Electrical Characteristics ( $T_a = 25^\circ\text{C}$ unless otherwise noted)

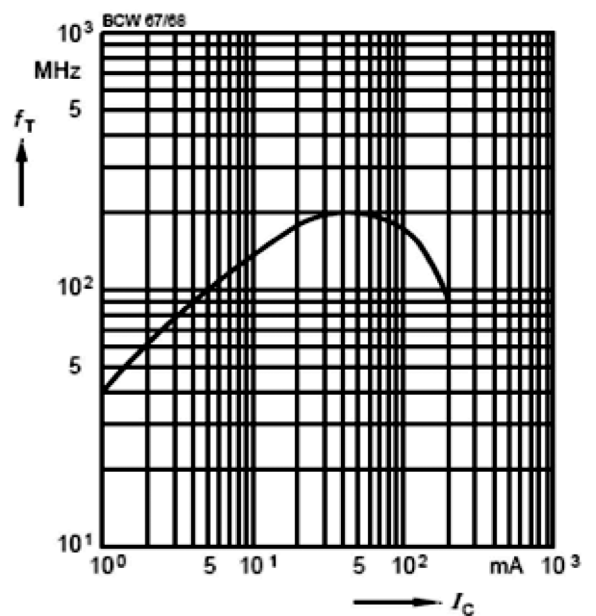
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-60			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-45			
Emitter - Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -45\text{V}, I_E = 0$			-20	nA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB} = -4\text{V}, I_C = 0$			-20	
DC Current Gain	$h_{FE}$	$V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$	50 80			
		$V_{CE} = -1\text{V}, I_C = -10\text{mA}$	120 180			
		$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	160 250	250 350	400 630	
		$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	60 100			
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$ $I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.3 -0.7	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$ $I_C = -500\text{mA}, I_B = -50\text{mA}$			-1.25 -2	
Transition Frequency	$f_T$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$ $f = 20\text{MHz}$		200		MHz

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



Transition frequency  $f_T = f(I_C)$

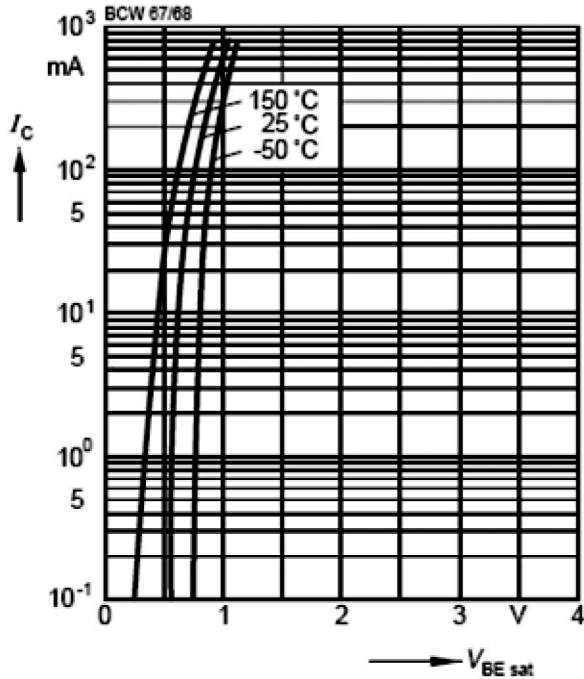
$V_{CE} = 5\text{V}$



# PNP General Purpose Amplifier **multicomp**

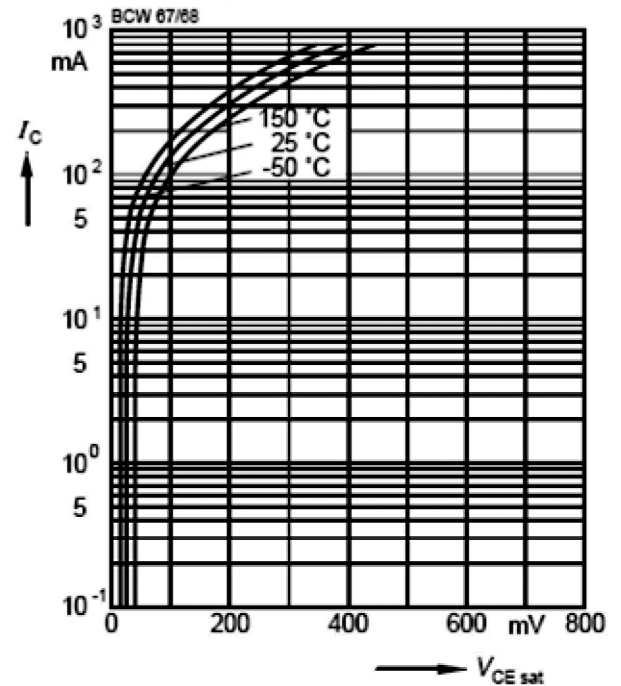
## Base-emitter saturation voltage

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



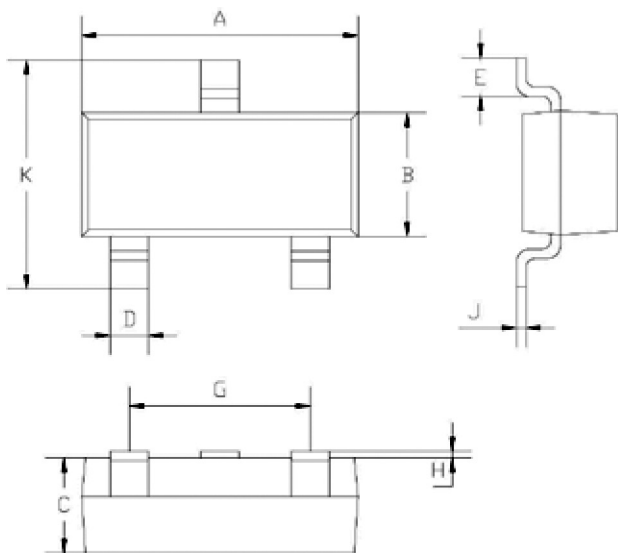
## Collector-emitter saturation voltage

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



## Package Outline

Plastic surface mounted package

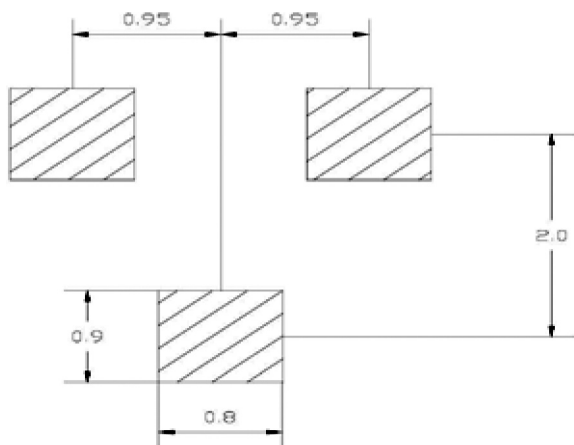


Dimensions	Min.	Max.
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45

Dimensions : Millimetres

# PNP General Purpose Amplifier

## Soldering Footprint



Dimensions : Millimetres

## Part Number Table

Description	Part Number
Transistor, PNP, 0.8A, 45V, SOT23	BCW68G
	BCW68H

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