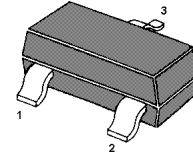


## BCW68 PNP Silicon Epitaxial Planar Transistor

for high current application

The transistor is subdivided into three groups F, G and H according to its DC current gain.



1.Base 2.Emitter 3.Collector  
SOT-23 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Emitter Voltage	$-V_{CEO}$	45	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	800	mA
Peak Collector Current	$-I_{CM}$	1	A
Base Current	$-I_B$	100	mA
Peak Base Current	$-I_{BM}$	200	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	- 55 to + 150	$^\circ\text{C}$

**Characteristics at  $T_a = 25\text{ }^\circ\text{C}$** 

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 10\text{ V}$ , $-I_C = 100\text{ }\mu\text{A}$  at $-V_{CE} = 1\text{ V}$ , $-I_C = 10\text{ mA}$  at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$  at $-V_{CE} = 2\text{ V}$ , $-I_C = 500\text{ mA}$	F	$h_{FE}$	35	-	-	-
	G	$h_{FE}$	50	-	-	-
	H	$h_{FE}$	80	-	-	-
	F	$h_{FE}$	75	-	-	-
	G	$h_{FE}$	120	-	-	-
	H	$h_{FE}$	180	-	-	-
	F	$h_{FE}$	100	-	250	-
	G	$h_{FE}$	160	-	400	-
	H	$h_{FE}$	250	-	630	-
	F	$h_{FE}$	35	-	-	-
	G	$h_{FE}$	60	-	-	-
	H	$h_{FE}$	100	-	-	-
Collector Cutoff Current at $-V_{CB} = 45\text{ V}$	$-I_{CBO}$	-	-	20	nA	
Emitter Cutoff Current at $-V_{EB} = 4\text{ V}$	$-I_{EBO}$	-	-	20	nA	
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	60	-	-	V	
Collector Emitter Breakdown Voltage at $-I_C = 10\text{ mA}$	$-V_{(BR)CEO}$	45	-	-	V	
Emitter Base Breakdown Voltage at $-I_E = 10\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V	
Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$ , $-I_B = 10\text{ mA}$	$-V_{CE(sat)}$	-	-	0.3	V	
Collector Emitter Saturation Voltage at $-I_C = 500\text{ mA}$ , $-I_B = 50\text{ mA}$	$-V_{CE(sat)}$	-	-	0.7	V	
Base Emitter Saturation Voltage at $-I_C = 100\text{ mA}$ , $-I_B = 10\text{ mA}$	$-V_{BE(sat)}$	-	-	1.25	V	
Base Emitter Saturation Voltage at $-I_C = 500\text{ mA}$ , $-I_B = 50\text{ mA}$	$-V_{BE(sat)}$	-	-	2	V	
Transition Frequency at $-V_{CE} = 5\text{ V}$ , $-I_C = 50\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	-	200	-	MHz	
Collector Base Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	6	-	pF	
Emitter Base Capacitance at $-V_{BE} = 0.5\text{ V}$ , $f = 1\text{ MHz}$	$C_{eb}$	-	60	-	pF	

## PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

