

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Complementary to BCW68

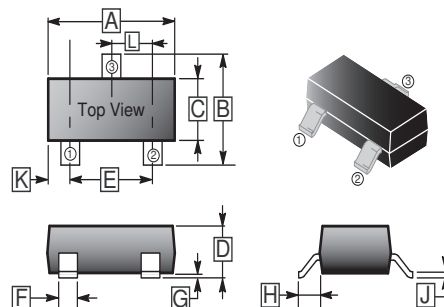
## MARKING

Part Number	Marking Code
BCW66F	EF
BCW66G	EG
BCW66H	EH

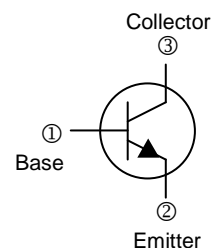
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

### SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.78	2.04	L	0.89	1.02
F	0.30	0.50			



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V <sub>CBO</sub>	75	V
Collector to Emitter Voltage	V <sub>CEO</sub>	45	V
Emitter to Base Voltage	V <sub>EBO</sub>	5	V
Collector Current - Continuous	I <sub>C</sub>	800	mA
Collector Power Dissipation	P <sub>C</sub>	200	mW
Junction, Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

Parameter		Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage		$V_{(BR)CBO}$	75	-	-	V	$I_C=10\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage		$V_{(BR)CEO}$	45	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage		$V_{(BR)EBO}$	5	-	-	V	$I_E=10\mu\text{A}, I_C=0$
Collector Cut-Off Current		$I_{CBO}$	-	-	0.02	$\mu\text{A}$	$V_{CB}=45\text{V}, I_E=0$
Emitter Cut-Off Current		$I_{EBO}$	-	-	0.02	$\mu\text{A}$	$V_{EB}=4\text{V}, I_C=0$
DC Current Gain <sup>1</sup>	BCW66F	$h_{FE(1)}$	35	-	-	-	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$
	BCW66G		50	-	-		
	BCW66H		80	-	-		
	BCW66F	$h_{FE(2)}$	75	-	-	-	$V_{CE}=1\text{V}, I_C=10\text{mA}$
	BCW66G		110	-	-		
	BCW66H		180	-	-		
	BCW66F	$h_{FE(3)}$	100	-	250	-	$V_{CE}=1\text{V}, I_C=100\text{mA}$
	BCW66G		160	-	400		
	BCW66H		250	-	630		
	BCW66F	$h_{FE(4)}$	35	-	-	-	$V_{CE}=2\text{V}, I_C=500\text{mA}$
	BCW66G		60	-	-		
	BCW66H		100	-	-		
Collector to Emitter Saturation Voltage		$V_{CE(sat)}$	-	-	0.3	V	$I_C=100\text{mA}, I_B=10\text{mA}$
			-	-	0.7		$I_C=500\text{mA}, I_B=50\text{mA}$
Base to Emitter Saturation Voltage		$V_{BE(sat)}$	-	-	2	V	$I_C=500\text{mA}, I_B=50\text{mA}$
Transition Frequency		$f_T$	100	-	-	MHz	$V_{CE}=10\text{V}, I_C=20\text{mA}, f=100\text{MHz}$
Collector output capacitance		$C_{ob}$	-	-	12	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Input Capacitance		$C_{ib}$	-	-	80	pF	$V_{EB}=0.5\text{V}, I_E=0, f=1\text{MHz}$
Noise Figure		NF	-	-	10	dB	$V_{CE}=5\text{V}, I_C=0.2\text{mA}, f=1\text{KHz}, R_S=1\text{K}\Omega, BW=200\text{Hz}$

Note:

1. Pulse test.