



SOT-23 Plastic-Encapsulate Transistors

BCW68F/68G/68H TRANSISTOR (PNP)

FEATURES

Power dissipation

$$P_{CM}: 0.33 \text{ W}(T_{amb}=25^{\circ}\text{C})$$

Collector current

$$I_{CM}: -0.8 \text{ A}$$

Collector-base voltage

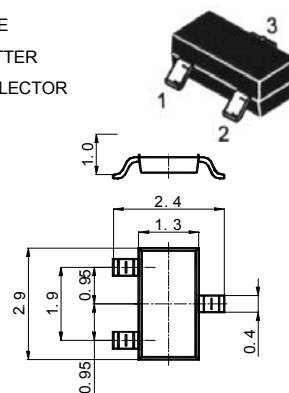
$$V_{(BR)CBO}: -60 \text{ V}$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}\text{C to } +150^{\circ}\text{C}$$

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR



Unit: mm

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

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			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -45\text{ V}, I_E = 0$			-0.02	μA
Collector cut-off current	I_{EBO}	$V_{EB} = -4\text{ V}, I_C = 0$			-0.02	μA
DC current gain	h_{FE1}	$V_{CE} = -10\text{V}, I_C = -0.1\text{mA}$ BCW68F BCW68G BCW68H	35 50 80			
	h_{FE2}	$V_{CE} = -1\text{V}, I_C = -10\text{mA}$ BCW68F BCW68G BCW68H	75 120 180			
	h_{FE3}	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$ BCW68F BCW68G BCW68H	100 160 250		250 400 630	
	h_{FE4}	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$ BCW68F BCW68G BCW68H	35 60 100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{mA}$			-0.3	V
		$I_C = -500\text{ mA}, I_B = -50\text{mA}$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{mA}$			-1.25	V
		$I_C = -500\text{ mA}, I_B = -50\text{mA}$			-2	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -20\text{mA}, f = 100\text{MHz}$	100			MHz
Output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			18	pF
Input capacitance	C_{ib}	$V_{EB} = -0.5\text{V}, I_E = 0, f = 1\text{MHz}$			80	pF
Noise Figure	NF	$V_{CE} = -5\text{V}, I_E = -0.2\text{mA}, f = 1\text{kHz}, \Delta f = 200\text{Hz}, R_G = 1\text{K}\Omega$			10	dB

Marking

BCW68F:DF ; BCW68G:DG; BCW68H:DH