



SOT-23 Plastic-Encapsulate Transistors

BCW66F/66G/66H TRANSISTOR (NPN)

FEATURES

Power dissipation

P_{CM} : 0.2 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.8 A

Collector-base voltage

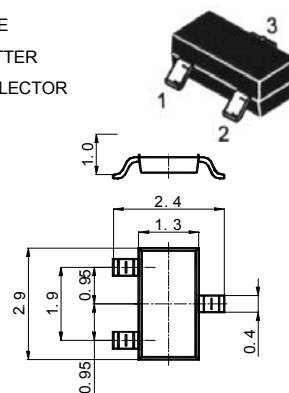
$V_{(BR)CBO}$: 75 V

Operating and storage junction temperature range

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

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR



Unit: mm

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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	75		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	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}	$V_{CB}=45V, I_E=0$		0.02	μA
Collector cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$		0.02	μA
DC current gain	h_{FE1}	$V_{CE}=10V, I_C=0.1mA$ BCW66F BCW66G BCW66H	35 50 80		
	h_{FE2}	$V_{CE}=1V, I_C=10mA$ BCW66F BCW66G BCW66H	75 110 180		
	h_{FE3}	$V_{CE}=1V, I_C=100mA$ BCW66F BCW66G BCW66H	100 160 250	250 400 630	
	h_{FE4}	$V_{CE}=2V, I_C=500mA$ BCW66F BCW66G BCW66H	35 60 100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.3	V
		$I_C=500mA, I_B=50mA$		0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$		1.25	V
		$I_C=500mA, I_B=50mA$		2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=20mA, f=100MHz$	100		MHz
Collector base capacitance	C_{CB}	$V_{CB}=10V, I_E=0, f=1MHz$		12	pF
Emitter base capacitance	C_{EB}	$V_{CE}=0.5V, I_E=0, f=1MHz$		80	pF
Noise Figure	NF	$V_{CE}=5V, I_E=0.2mA, f=1kHz, \Delta f=200Hz, R_G=2K\Omega$		10	dB

Marking	BCW66F:EF ; BCW66G:EG; BCW66H:EH
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