

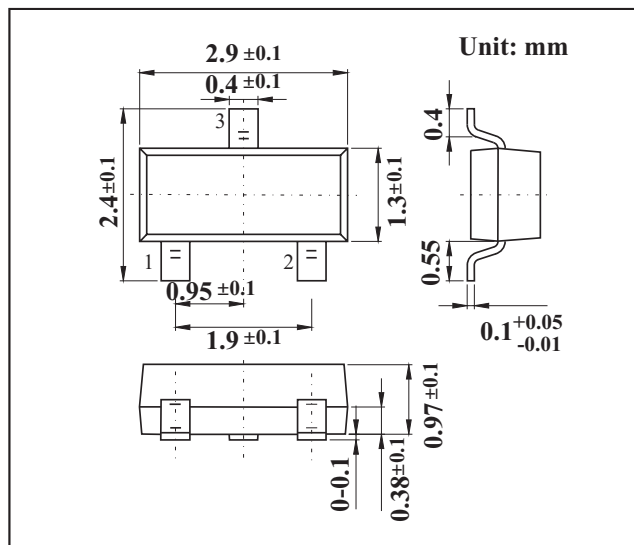
SOT-23 Plastic-Encapsulate Transistors

Features

- BCW66 is subdivided into three groups F,G and H according to DC current gain
- Complementary to BCW68
- NPN Transistors

MECHANICAL DATA

- Case style:SOT-23molded plastic
- Mounting position:any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	75	V
Collector - Emitter Voltage	V _{CE0}	45	
Emitter - Base Voltage	V _{EB0}	5	
Collector Current - Continuous	I _C	800	mA
Collector Power Dissipation	P _C	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

PACKAGE INFORMATION

Device	Package	Shipping
BCW66	SOT-23	3000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _C = 100 μA, I _E = 0	75			V
Collector- emitter breakdown voltage	V _{CE0}	I _C = 10 mA, I _B = 0	45			
Emitter - base breakdown voltage	V _{EB0}	I _E = 100 μA, I _C = 0	5			
Collector-base cut-off current	I _{CB0}	V _{CB} = 45 V, I _E = 0			20	nA
Emitter cut-off current	I _{EB0}	V _{EB} = 4V, I _C =0			20	
Collector-emitter saturation voltage (Note.1)	V _{CE(sat)}	I _C =100 mA, I _B =10mA			0.3	V
		I _C = 500 mA, I _B = 50mA			0.7	
Base - emitter saturation voltage (Note.1)	V _{BE(sat)}	I _C = 500 mA, I _B = 50mA			2	
DC current gain	h _{FE(1)}	V _{CE} = 10V, I _C = 100μA	F	35		
			G	50		
			H	80		
	h _{FE(2)}	V _{CE} = 1V, I _C = 10mA	F	75		
			G	110		
			H	180		
	h _{FE(3)}	V _{CE} = 1V, I _C = 100mA	F	100	250	
			G	160	400	
			H	250	630	
	h _{FE(4)}	V _{CE} = 2V, I _C = 500mA	F	35		
			G	60		
			H	100		
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f=1MHz			12	pF
Collector input capacitance	C _{ib}	V _{EB} = 0.5V, I _C = 0, f=1MHz			80	
Noise figure	NF	V _{CE} = 5V, I _C = 0.2mA R _S =1KΩ, BW=200Hz			10	dB
Transition frequency	f _T	V _{CE} = 10V, I _C = 20mA, f=100MHz	100			MHz

■ Classification of h_{FE(3)}

Type	BCW66F	BCW66G	BCW66H
Range	100-250	160-400	250-630
Marking	EF	EG	EH

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

