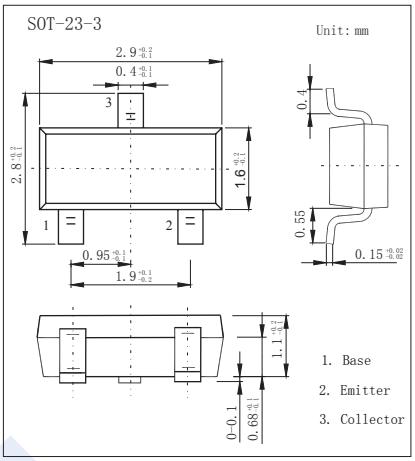
NPN Transistors

BCW66 (KCW66)



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	75	V
Collector - Emitter Voltage	V_{CEO}	45	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	800	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

NPN Transistors

BCW66 (KCW66)

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions		Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0		75			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 10 mA, I_B= 0		45			V
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0		5			V
Collector-base cut-off current	I_{CBO}	V_{CB}= 45 V , I_E= 0				20	nA
Emitter cut-off current	I_{EBO}	V_{EB}= 4V , I_C=0				20	nA
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	V
Base - emitter saturation voltage (Note.1)	$V_{BE(sat)}$	I_C= 500 mA, I_B= 50mA				2	V
DC current gain	$h_{FE(1)}$	V_{CE}= 10V, I_C= 100uA	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	pF
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

NPN Transistors

BCW66 (KCW66)

■ Typical Characterisitics

