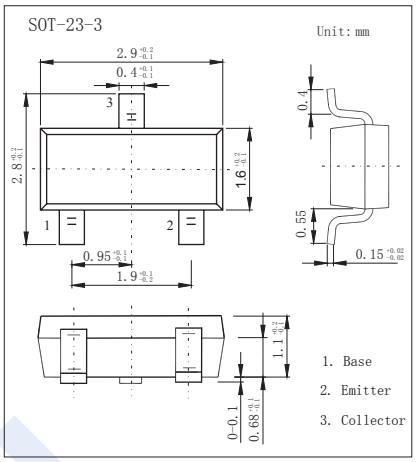
PNP Transistors

BCW61 (KCW61)



■ Features

- Low current
- Low voltage
- General Purpose Transistor

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-32	V
Collector - Emitter Voltage	V_{CEO}	-32	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-100	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

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■ 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	-32			V
Collector- emitter breakdown voltage		V_{CEO}	I_C= -1 mA， I_B=0	-32			
Emitter - base breakdown voltage		V_{EBO}	I_E= -100 μ A， I_C=0	-5			
Collector-base cut-off current		I_{CBO}	V_{CB}= -32 V , I_E=0			-20	nA
Emitter cut-off current		I_{EBO}	V_{EB}= -4V , I_C=0			-20	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-10 mA, I_B=-0.25mA	-60		-250	mV
			I_C=-50 mA, I_B=-1.25mA	-120		-550	
Base - emitter saturation voltage		$V_{BE(sat)}$	I_C=-10 mA, I_B=-0.25mA	-0.6		-0.85	V
			I_C=-50 mA, I_B=-1.25mA	-0.68		-1.05	
Base - emitter voltage		V_{BE}	V_{CE}= -5V, I_C= -2mA	-0.6		-0.75	
DC current gain	BCW61B	$h_{FE(1)}$	V_{CE}= -5V, I_C= -10uA	30			
	BCW61C			40			
	BCW61D			100			
DC current gain	BCW61A	$h_{FE(2)}$	V_{CE}= -5V, I_C= -2mA	120		220	
	BCW61B			180		310	
	BCW61C			250		460	
	BCW61D			380		630	
DC current gain	BCW61A	$h_{FE(3)}$	V_{CE}= -1V, I_C= -50mA	60			
	BCW61B			80			
	BCW61C			100			
	BCW61D			110			
Collector output capacitance		C_{ob}	V_{CB}= -10V,I_E=0, f=1MHz		4.5		pF
Collector input capacitance		C_{ib}	V_{EB}= -0.5V,I_C=0, f=1MHz		11		
Transition frequency		f_T	V_{CE}= -5V, I_C= -10mA,f=100MHz	100			MHz

■ Classification of $h_{fe(2)}$

Type	BCW61A	BCW61B	BCW61C	BCW61D
Range	120-220	180-310	250-460	380-630
Marking	BA	BB	BC	BD