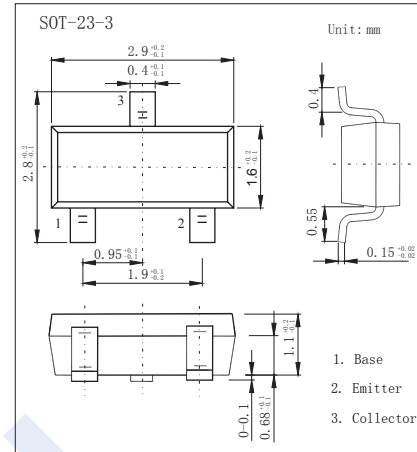


PNP Transistors

BCW61 (KCW61)

■ Features

- Low current
- Low voltage
- General Purpose Transistor

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-32	V
Collector - Emitter Voltage	V_{CE0}	-32	
Emitter - Base Voltage	V_{EB0}	-5	
Collector Current - Continuous	I_C	-100	mA
Collector Power Dissipation	P_C	250	mW
Junction Temperature	T_J	150	°C
Storage Temperature range	T_{stg}	-55 to 150	

PNP Transistors

BCW61 (KCW61)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _c = -100 μA, I _E =0	-32			V
Collector- emitter breakdown voltage	V _{CE0}	I _c = -1 mA, I _B =0	-32			
Emitter - base breakdown voltage	V _{EB0}	I _E = -100 μA, I _c =0	-5			
Collector-base cut-off current	I _{CB0}	V _{CB} = -32 V, I _E =0			-20	nA
Emitter cut-off current	I _{EB0}	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 = -10μA	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