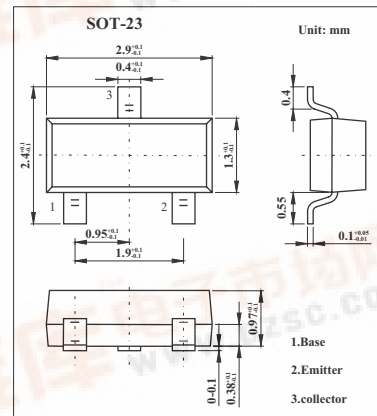


SMD Type Transistors

General Purpose Transistor
BCW61A/B/C/D

■ Features

- PNP Epitaxial Silicon Transistor



■ Absolute Maximum Ratings Ta = 25°C unless otherwise noted

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-32	V
Collector-Emitter Voltage	V _{CEO}	-32	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-100	mA
Collector Power Dissipation	P _C	350	mW
Storage Temperature	T _{STG}	-55 to +150	°C

BCW61A/B/C/D

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit	
Collector cutoff current	ICBO	$I_E = 0; V_{CB} = -32\text{ V}$			-20	nA	
	ICBO	$I_E = 0; V_{CB} = -32\text{ V}; T_{amb} = 150^\circ\text{C}$			-20	μA	
Emitter cutoff current	IEBO	$I_C = 0; V_{EB} = -4\text{ V}$			-20	nA	
DC current gain	BCW61B	$I_C = -10\mu\text{A}; V_{CE} = -5\text{ V}$	hFE	30			
	BCW61C			40			
	BCW61D			100			
DC current gain	BCW61B	$I_C = -2\text{ mA}; V_{CE} = -5\text{ V}$	hFE	180		310	
	BCW61C			250		460	
	BCW61D			380		630	
DC current gain	BCW61B	$I_C = -50\text{ mA}; V_{CE} = -5\text{ V}$	hFE	80			
	BCW61C			100			
	BCW61D			110			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{ mA}; I_B = -0.25\text{ mA}$	-60		-250	mV	
		$I_C = -50\text{ mA}; I_B = -1.25\text{ mA}$	-120		-550	mV	
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10\text{ mA}; I_B = -0.25\text{ mA}$	-600		-850	mV	
		$I_C = -50\text{ mA}; I_B = -1.25\text{ mA}$	-0.68		-1.05	V	
Base to emitter voltage	V_{BE}	$I_C = -2\text{ mA}; V_{CE} = -5\text{ V}$	-600	-650	-750	mV	
Collector capacitance	C_C	$I_E = I_C = 0; V_{CB} = -10\text{ V}; f = 1\text{ MHz}$		4.5		pF	
Emitter capacitance	C_e	$I_C = I_E = 0; V_{EB} = -0.5\text{ V}; f = 1\text{ MHz}$		11		pF	
Transition frequency *	f_T	$I_C = -10\text{ mA}; V_{CE} = -5\text{ V}; f = 100\text{ MHz}$	100			MHz	
Noise figure	NF	$I_C = -200\mu\text{A}; V_{CE} = -5\text{ V}; R_s = 2\text{ k}\Omega; f = 1\text{ kHz}; B = 200\text{ Hz}$		2	6	dB	

* Pulse test: $t_p \leq 300\mu\text{s}; d \leq 0.02$.

■ Marking

TYPE	BCW61A	BCW61B	BCW61C	BCW61D
Marking	BA	BB	BC	BD