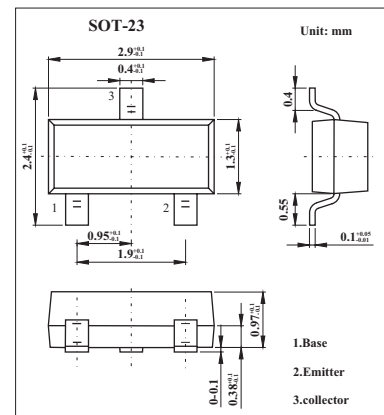


General Purpose Transistor

BCW61A/B/C/D

■ Features

- PNP Epitaxial Silicon Transistor

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

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-32	V
Collector-Emitter Voltage	V_{CE0}	-32	V
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-100	mA
Collector Power Dissipation	P_C	350	mW
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

BCW61A/B/C/D

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

Parameter		Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current		I_{CBO}	$I_E = 0; V_{CB} = -32\text{ V}$			-20	nA
		I_{CBO}	$I_E = 0; V_{CB} = -32\text{ V}; T_{amb} = 150^\circ\text{C}$			-20	μA
Emitter cutoff current		I_{EBO}	$I_C = 0; V_{EB} = -4\text{ V}$			-20	nA
DC current gain	BCW61B	h_{FE}	$I_C = -10\mu\text{A}; V_{CE} = -5\text{ V}$	30			
	BCW61C			40			
	BCW61D			100			
DC current gain	BCW61B	h_{FE}	$I_C = -2\text{ mA}; V_{CE} = -5\text{ V}$	180		310	
	BCW61C			250		460	
	BCW61D			380		630	
DC current gain	BCW61B	h_{FE}	$I_C = -50\text{ mA}; V_{CE} = -5\text{ V}$	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