

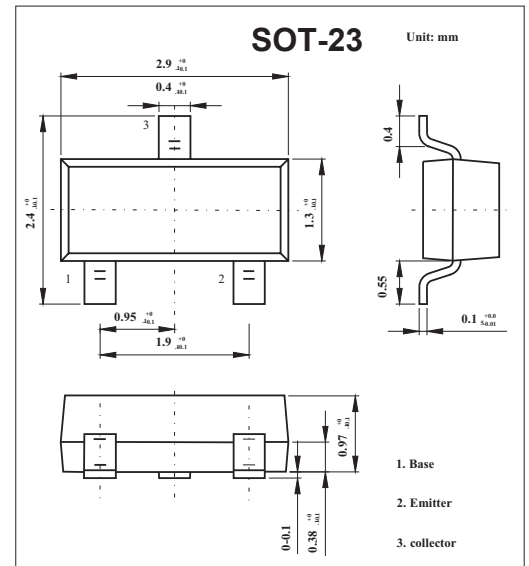
## SOT-23 Plastic-Encapsulate Transistors

### Features

- PNP Epitaxial Silicon Transistor

### MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-32	V
Collector-Emitter Voltage	V <sub>CE0</sub>	-32	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current	I <sub>c</sub>	-100	mA
Collector Power Dissipation	P <sub>c</sub>	350	mW
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C

### PACKAGE INFORMATION

Device	Package	Shipping
BCW61A/B/C/D	SOT-23	3000/Tape&Reel

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I <sub>cB0</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = -32 V			-20	nA
	I <sub>cB0</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = -32 V; T <sub>amb</sub> = 150 °C			-20	μA
Emitter cutoff current	I <sub>E0</sub>	I <sub>c</sub> = 0; V <sub>EB</sub> = -4 V			-20	nA
DC current gain	BCW61B	I <sub>c</sub> = -10 μA; V <sub>CE</sub> = -5 V	30			
	BCW61C		40			
	BCW61D		100			
DC current gain	BCW61B	I <sub>c</sub> = -2 mA; V <sub>CE</sub> = -5 V	180		310	
	BCW61C		250		460	
	BCW61D		380		630	
DC current gain	BCW61B	I <sub>c</sub> = -50 mA; V <sub>CE</sub> = -5 V	80			
	BCW61C		100			
	BCW61D		110			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> = -10 mA; I <sub>B</sub> = -0.25 mA	-60		-250	mV
		I <sub>c</sub> = -50 mA; I <sub>B</sub> = -1.25 mA	-120		-550	mV
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> = -10 mA; I <sub>B</sub> = -0.25 mA	-600		-850	mV
		I <sub>c</sub> = -50 mA; I <sub>B</sub> = -1.25 mA	-0.68		-1.05	V
Base to emitter voltage	V <sub>BE</sub>	I <sub>c</sub> = -2 mA; V <sub>CE</sub> = -5 V	-600	-650	-750	mV
Collector capacitance	C <sub>c</sub>	I <sub>E</sub> = I <sub>E</sub> = 0; V <sub>CB</sub> = -10 V; f = 1 MHz		4.5		pF
Emitter capacitance	C <sub>e</sub>	I <sub>c</sub> = I <sub>c</sub> = 0; V <sub>EB</sub> = -0.5 V; f = 1 MHz		11		pF
Transition frequency *	f <sub>T</sub>	I <sub>c</sub> = -10 mA; V <sub>CE</sub> = -5 V; f = 100 MHz	100			MHz
Noise figure	NF	I <sub>c</sub> = -200 μA; V <sub>CE</sub> = -5 V; R <sub>s</sub> = 2 kΩ; f = 1 kHz; B = 200 Hz		2	6	dB

\* Pulse test: t<sub>p</sub> ≤ 300 μs; d ≤ 0.02.

### Marking

TYPE	BCW61A	BCW61B	BCW61C	BCW61D
Marking	BA	BB	BC	BD