

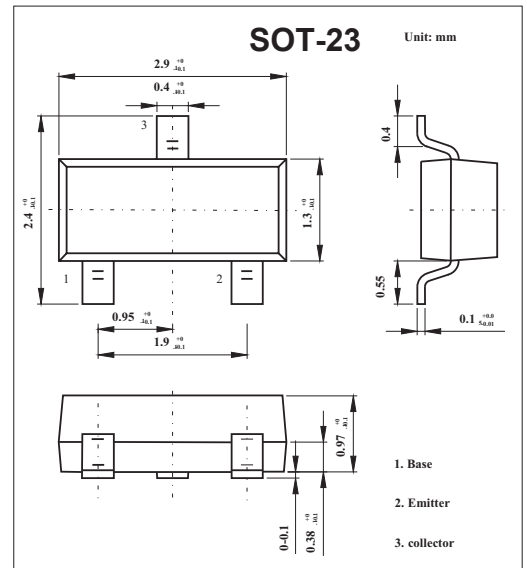
SOT-23 Plastic-Encapsulate Transistors

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_{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	TSTG	-55 to +150	°C

PACKAGE INFORMATION

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

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

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

Marking

TYPE	BCW61A	BCW61B	BCW61C	BCW61D
Marking	BA	BB	BC	BD