



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

SOT-23 Plastic-Encapsulate Transistors

BCW61D TRANSISTOR (PNP)

FEATURES

Power dissipation

AXIMUM RATINGS* $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Emitter Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.1	A
P_C	Power dissipation	0.25	W
T_J, T_{stg}	Junction and Storage Temperature	-55-150	$^{\circ}\text{C}$

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-32			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -32\text{V}, I_E = 0$			-0.02	μA
Collector cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.02	μA
DC current gain	h_{FE1}	$V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$	100			
	h_{FE2}	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	380		630	
	h_{FE3}	$V_{CE} = -1\text{V}, I_C = -50\text{mA}$	110			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -0.25\text{mA}$	-0.06		-0.25	V
		$I_C = -50\text{mA}, I_B = -1.25\text{mA}$	-0.12		-0.55	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -0.25\text{mA}$	-0.6		-0.85	V
		$I_C = -50\text{mA}, I_B = -1.25\text{mA}$	-0.68		-1.05	V
Base-emitter voltage	$V_{BE(ON)}$	$V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$		-0.55		V
		$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	-0.6		-0.75	V
		$V_{CE} = -1\text{V}, I_C = -50\text{mA}$		-0.72		V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$	100			MHz
Collector capacitance	C_C	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		4.5		pF
Emitter capacitance	C_e	$V_{EB} = -0.5\text{V}, I_C = 0, f = 1\text{MHz}$		11		pF

Marking

BD