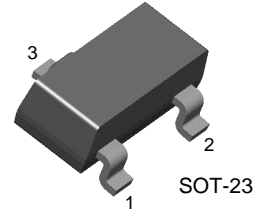


BCW61A/B/C/D

General Purpose Transistor



1. Base 2. Emitter 3. Collector

PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current	-100	mA
P_C	Collector Power Dissipation	350	mW
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

• Refer to KST5086 for graphs

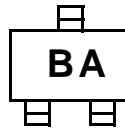
Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -2\text{mA}, I_B = 0$	-32		
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -1\mu\text{A}, I_C = 0$	-5		
I_{CES}	Collector Cut-off Current	$V_{CB} = -32\text{V}, V_{BE} = 0$		-20	
h_{FE}	DC Current Gain				
	: BCW61B	$V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$	20		V
	: BCW61C		40		
	: BCW61D		100		
	: BCW61A	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	120	220	V
	: BCW61B		140	310	
	: BCW61C		250	460	
	: BCW61D		380	630	
	: BCW61A	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	60		nA
	: BCW61B		80		
	: BCW61C		100		
	: BCW61D		100		
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = -50\text{mA}, I_B = -1.25\text{mA}$ $I_C = -10\text{mA}, I_B = -0.25\text{mA}$		-0.55 -0.25	V V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = -50\text{mA}, I_B = -1.25\text{mA}$ $I_C = -10\text{mA}, I_B = -0.25\text{mA}$	0.68 0.6	1.05 0.85	V V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	0.6	0.75	V
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0$ $f = 1\text{MHz}$		6	pF
NF	Noise Figure	$I_C = -0.2\text{mA}, V_{CE} = -5\text{V}$ $R_G = 20\text{K}\Omega, f = 1\text{KHz}$		6	dB
t_{ON}	Turn On Time	$I_C = -10\text{mA}, I_{B1} = -1\text{mA}$		150	ns
t_{OFF}	Turn Off Time	$V_{BB} = -3.6\text{V}, B22 = -1\text{mA}$ $R1 = R2 = 5.0\text{K}\Omega, R_L = 990\Omega$		800	ns

Marking Code

Type	BCW61A	BCW61B	BCW61C	BCW61D
Mark.	BA	BB	BC	BD

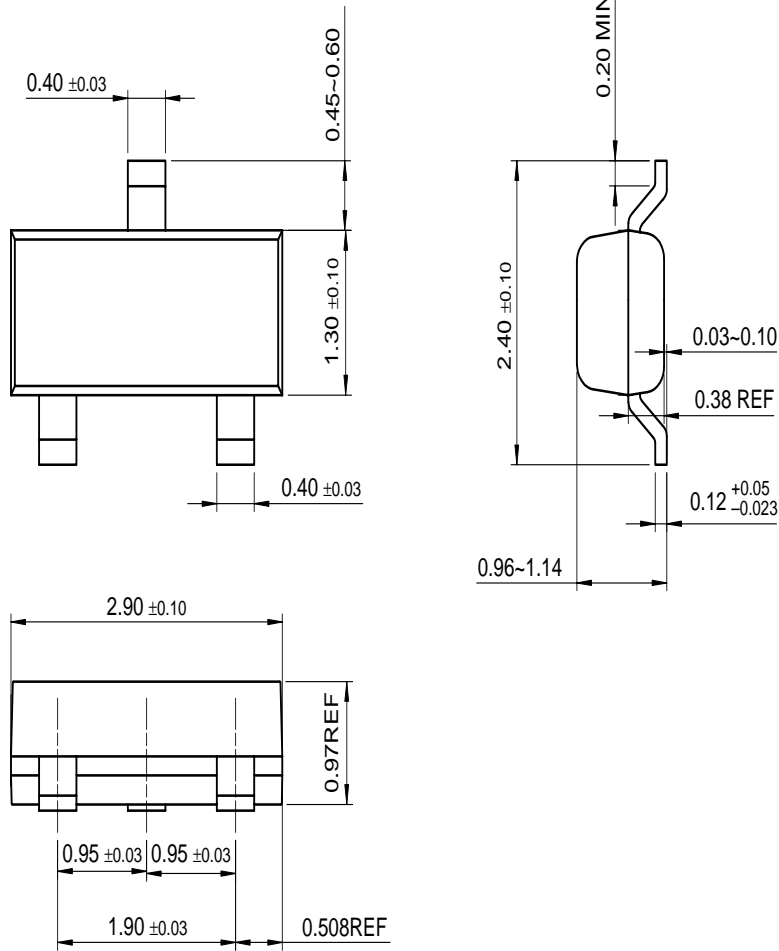
Marking



Package Dimensions

BCW61A/B/C/D

SOT-23



Dimensions in Millimeters

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Definition of Terms

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Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Package marking	Packing method
BCW61B	Full Production	\$0.0475	SOT-23	3	BB USE BINARY CODE	TAPE REEL
BCW61BMTF	Full Production	\$0.045	SOT-23	3	N/A	TAPE REEL

* 1,000 piece Budgetary Pricing

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BCW61C

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
BCW61CMTF	Full Production	\$0.045	SOT-23	3	TAPE REEL

* 1,000 piece Budgetary Pricing

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BCW61D

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
BCW61DMTF	Full Production	\$0.045	SOT-23	3	TAPE REEL

* 1,000 piece Budgetary Pricing

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Package marking	Packing method
BCW61A	Full Production	\$0.053	SOT-23	3	BA	TAPE REEL
BCW61AMTF	Full Production	\$0.045	SOT-23	3	N/A	TAPE REEL

* 1,000 piece Budgetary Pricing

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