

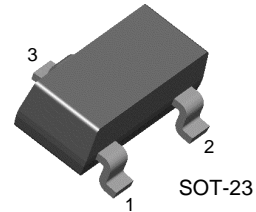


THE DATASHEET OF BCW61DMTF



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

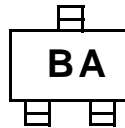
Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

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

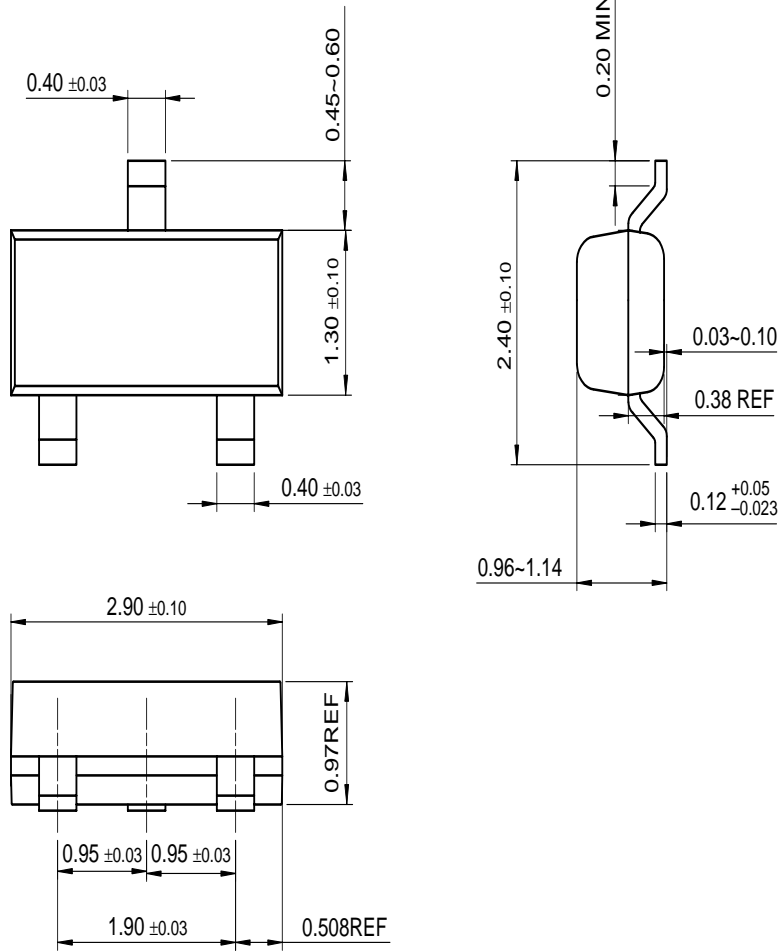
Marking



Package Dimensions

BCW61A/B/C/D

SOT-23



Dimensions in Millimeters

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