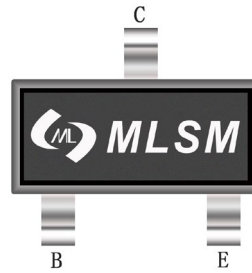
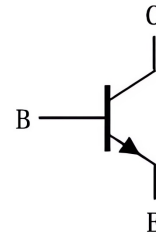


Features

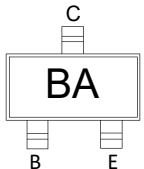
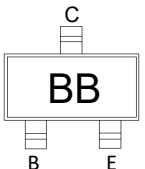
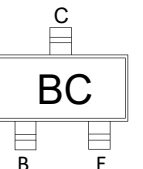
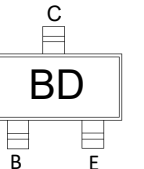
- Low current
- Low voltage
- General Purpose Transistor



SOT-23 top view



Schematic diagram

BCW61A: BA	BCW61B: BB	BCW61C: BC	BCW61D: BD
			



Halogen-Free

Maximum Ratings (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-100	mA
P_C	Collector Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	500	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C

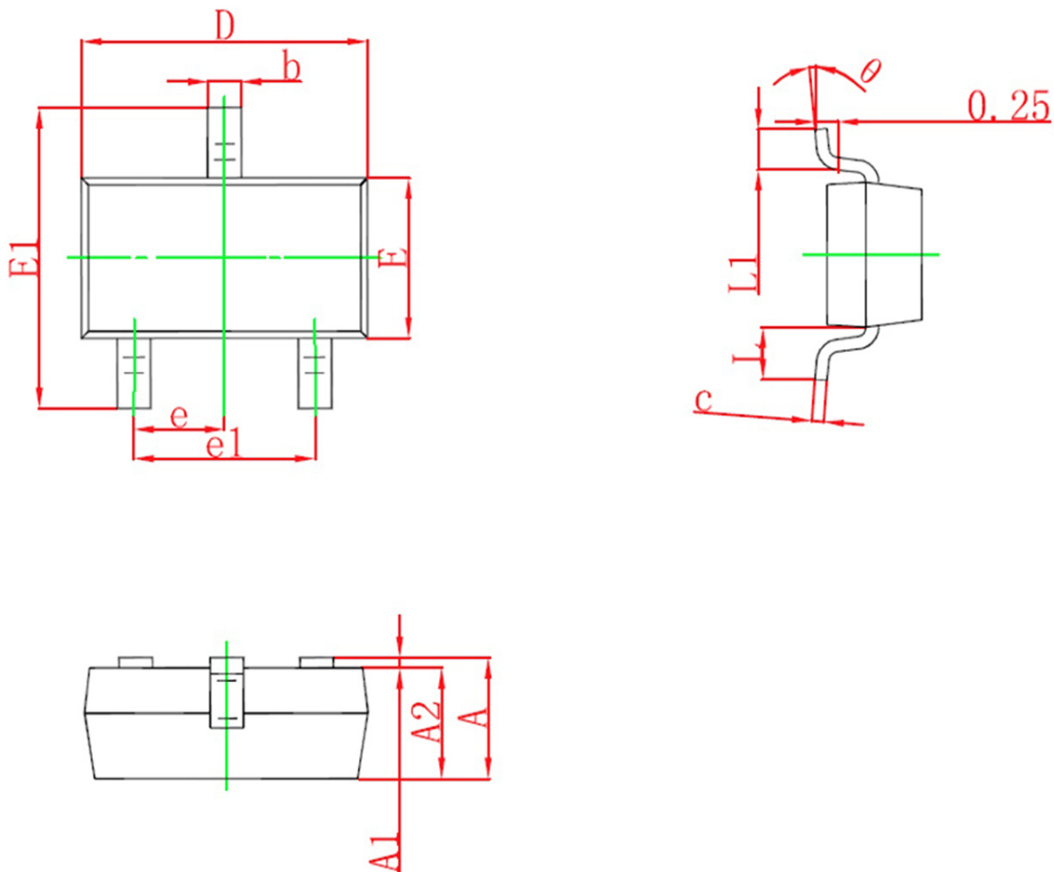
Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BCW61A	SOT-23	BA	3,000	45,000	180,000	7"reel
BCW61B	SOT-23	BB	3,000	45,000	180,000	7"reel
BCW61C	SOT-23	BC	3,000	45,000	180,000	7"reel
BCW61D	SOT-23	BD	3,000	45,000	180,000	7"reel

Electrical Characteristics (Ta=25°C unless otherwise specified)

Symbol	Parameter		Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage		$I_C=-10\mu A, I_E=0$	-32	--	--	V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage		$I_C=-1mA, I_B=0$	-32	--	--	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage		$I_E=-10\mu A, I_C=0$	-5	--	--	V
I_{CBO}	Collector cut-off current		$V_{CB}=-32V, I_E=0$	--	--	-0.02	μA
I_{EBO}	Emitter cut-off current		$V_{EB}=-4V, I_C=0$	--	--	-0.02	μA
$H_{FE(1)}$	DC current gain	BCW61B	$V_{CE}=-5V, I_C=-10\mu A$	30	--	--	
		BCW61C		40	--	--	
		BCW61D		100	--	--	
$H_{FE(2)}$	DC current gain	BCW61A	$V_{CE}=-5V, I_C=-2mA$	120	--	220	
		BCW61B		180	--	310	
		BCW61C		250	--	460	
		BCW61D		380	--	630	
$H_{FE(3)}$	DC current gain	BCW61A	$V_{CE}=-1V, I_C=-50mA$	60	--	--	
		BCW61B		80	--	--	
		BCW61C		100	--	--	
		BCW61D		110	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage		$I_C=-10mA, I_B=-0.25mA$	-60	--	-250	mV
			$I_C=-50mA, I_B=-1.25mA$	-120	--	-550	mV
$V_{BE(sat)}$	Base-emitter saturation voltage		$I_C=-10mA, I_B=-0.25mA$	-0.6	--	-0.85	V
			$I_C=-50mA, I_B=-1.25mA$	-0.68	--	-1.05	V
V_{BE}	Base-emitter voltage		$V_{CE}=-5V, I_C=-2mA$	-0.6	--	-0.75	V
f_T	Transition frequency		$V_{CE}=-5V, I_C=-10mA, f=100MHz$	100	--	--	MHz
C_{ob}	Collector output capacitance		$V_{CB}=-10V, I_E=0, f=1MHz$	--	4.5	--	pF
C_{ib}	Emitter input capacitance		$V_{EB}=-0.5V, I_C=0, f=1MHz$	--	11	--	pF

SOT-23 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E1	2.250	2.550	0.088	0.100
E	1.200	1.400	0.047	0.055
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°