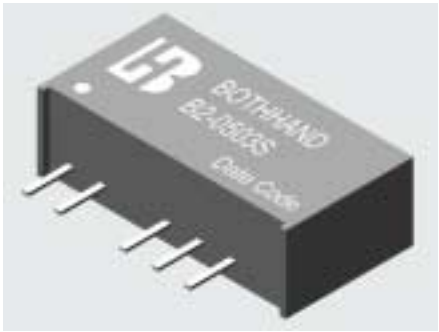
B2 - SIL Series

0.6 to 1 Watt Isolated DC-DC Converter
Dual Split Regulated Output

1. Features :

- 7 Pin SIL Package
- Low Ripple and Noise
- Input / Output Isolation 1K Vdc or 3K Vdc
- 100 % Burn-In
- Input Filter with Internal Capacitor
- Custom Design Available



2. Absolute maximum ratings :

(Exceeding these values may damage the module. These are not continuous operating ratings)

Parameter	Condition	Min.	Typ.	Max.	Unit
Input **Absolute** Voltage Range	5V Input Model	-0.7	5	7.5	Vdc
	12V Input Model	-0.7	12	15	
	24V Input Model	-0.7	24	30	
Max. Output power		---	---	1	W
Output Short circuit duration		---	---	1.0	Second
Operating temperature	Output Full Load	-40	---	+85	℃
Storage temperature		-55	---	+105	

3. Nominal Input / Output Electrical Specifications :

(Specifications typical at Ta = +25℃, nominal input voltage, rated output current unless otherwise noted)

Parameter	Condition	Min.	Typ.	Max.	Unit
Input Voltage Range	5V Input Model	4.5	5	5.5	Vdc
	12V Input Model	10.8	12	13.2	
	24V Input Model	21.6	24	26.4	
Output Voltage Accuracy	Nominal Input	---	---	± 1.0	%
Output Voltage Balance	Dual Output same Load	---	---	± 0.3	
Switching Frequency	Nominal Input	---	100	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% / ℃
Isolation Voltage	Standard Series	1000	---	---	Vdc
	High Isolation Series	3000	---	---	
Isolation Resistance	500 Vdc	1000	---	---	MΩ
Isolation Capacitance	1 KHz / 250 mV rms	---	40	---	pF
Line Regulation		---	---	± 0.4	%

4. Model Selection Guide :

4.1. 1K Vdc Isolation – Dual split output

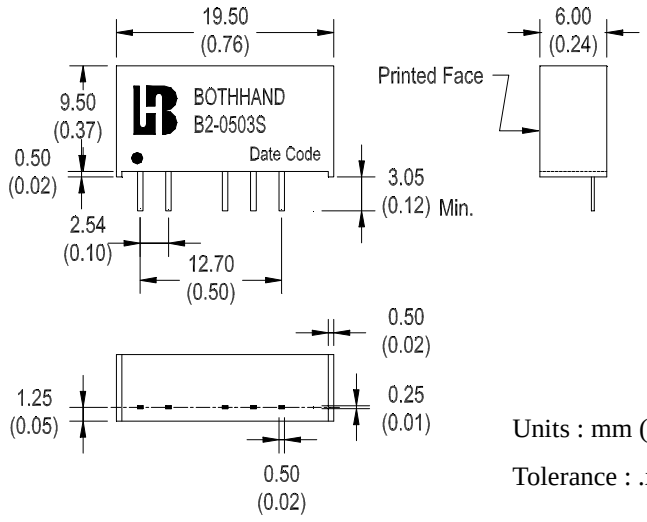
(Specifications typical at Ta = +25 ℃, Nominal input voltage, Rated output current unless otherwise noted)

Bothhand Model No.	Input Voltage (Vdc)	Output Voltage (Vdc)		Output Current (mA) Max.		Input Current @ No Load (mA) Typ.	Input Current @ Max. Load (mA) Typ.	Output Ripple (mV) Max.	Load Regulation (%) Max.	Efficiency (%) Typ.
B2-0503S	5	3.0	3.0	100	100	28	226	45	± 0.3	53
B2-053R3S		3.3	3.3	100	100	28	249	45	± 0.3	53
B2-054R8S		4.85	4.85	100	100	28	359	45	± 0.3	54
B2-0505S		5.0	5.0	100	100	28	370	45	± 0.3	54
B2-1203S	12	3.0	3.0	100	100	18	93	45	± 0.3	54
B2-123R3S		3.3	3.3	100	100	18	102	45	± 0.3	54
B2-124R8S		4.85	4.85	100	100	18	147	45	± 0.3	55
B2-1205S		5.0	5.0	100	100	18	152	45	± 0.3	55
B2-2403S	24	3.0	3.0	100	100	5	46	45	± 0.3	54
B2-243R3S		3.3	3.3	100	100	5	51	45	± 0.3	54
B2-244R8S		4.85	4.85	100	100	5	73	45	± 0.3	55
B2-2405S		5.0	5.0	100	100	5	76	45	± 0.3	55
B2-xxxxS										

Notes：

1. B2-xxxxS is for Customer Design.
2. Load regulation is for output current change from 0 % to 100 % Max. Load.

Mechanical Dimension :



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

Pin	1K Vdc - Dual Split
1	+Vin
2	-Vin
3	---
4	Vo2 (+)
5	Ground
6	Vo1 (+)
7	---

Note：” --- “ means Omitted

4.2. 3K Vdc Isolation - Dual split output

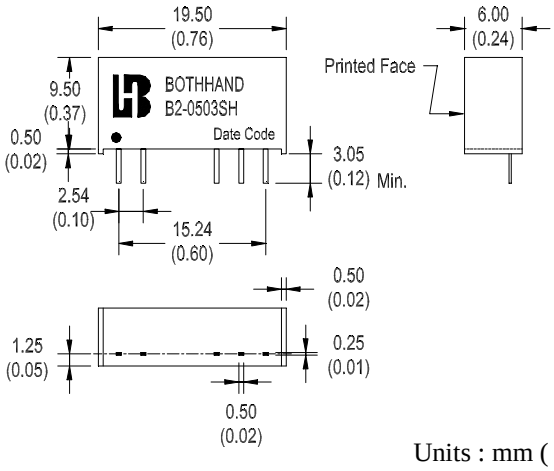
(Specifications typical at Ta = +25 ℃, Nominal input voltage, Rated output current unless otherwise noted)

Bothhand Model No.	Input Voltage (Vdc)	Output Voltage (Vdc)		Output Current (mA) Max.		Input Current @ No Load (mA) Typ.	Input Current @ Max. Load (mA) Typ.	Output Ripple (mV) Max.	Load Regulation (%) Max.	Efficiency (%) Typ.
B2-0503SH	5	3.3	3.3	100	100	28	226	45	± 0.3	53
B2-053R3SH		3.3	3.3	100	100	28	249	45	± 0.3	53
B2-054R8SH		4.85	4.85	100	100	28	359	45	± 0.3	54
B2-0505SH		5.0	5.0	100	100	28	370	45	± 0.3	54
B2-1203SH	12	3.0	3.0	100	100	18	93	45	± 0.3	54
B2-123R3SH		3.3	3.3	100	100	18	102	45	± 0.3	54
B2-124R8SH		4.85	4.85	100	100	18	147	45	± 0.3	55
B2-1205SH		5.0	5.0	100	100	18	152	45	± 0.3	55
B2-2403SH	24	3.0	3.0	100	100	5	46	45	± 0.3	54
B2-243R3SH		3.3	3.3	100	100	5	51	45	± 0.3	54
B2-244R8SH		4.85	4.85	100	100	5	73	45	± 0.3	55
B2-2405SH		5.0	5.0	100	100	5	76	45	± 0.3	55
B2-xxxxSH										

Notes：

1. B2-xxxxSH is for Customer Design.
2. Load regulation is for output current change from 0 % to 100 % Max. Load.

Mechanical Dimension：



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

Pin	3K Vdc - Dual Split
1	+Vin
2	-Vin
3	---
4	
5	Vo2 (+)
6	Ground
7	Vo1 (+)

Note：” --- “ means Omitted