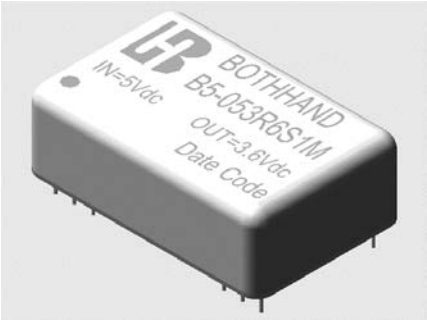
1. Features :

- 24 Pin DIL Package
- Regulated Output & Low Ripple and Noise
- Input / Output Isolation 1K Vdc
- 100 % Burn-In
- Input π - Filter
- 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	
Output Short circuit duration	Nominal Input Range	---	---	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	
Line Regulation	Output full Load	---	---	± 0.5	%
Load Regulation	Single Output Model	---	---	± 0.5	
	Dual Output Model			± 2	
Output Voltage Accuracy	Nominal Input	---	± 1.0	± 2.0	
Output Voltage Balance	Dual Output at same Load	---	---	± 1.0	
Switching Frequency	Nominal Input	---	125	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% / ℃
Isolation Voltage	60 Seconds / 0.5 mA	1000	---	---	Vdc
Isolation Resistance	500 Vdc	1000	---	---	MΩ
Isolation Capacitance	1 KHz / 250 mV rms	---	60	---	pF

4. Single Output Selection Guide：

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

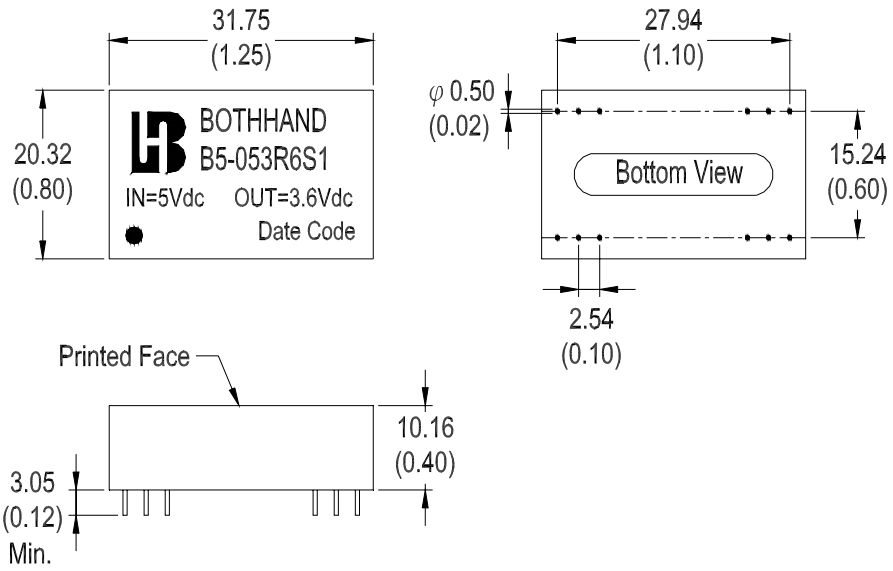
Bothhand Model No.	Input Voltage (Vdc)	Output Voltage (Vdc)	Output Current (mA) Max	Input Current @ No Load (mA) Typ.	Input Current @ Max. Load (mA) Typ.	Output Ripple (mV) Max.	Load Regulation (%) Max.	Efficiency (%) Typ.
1.5 W Single output Series：								
B5-053R6S1	5	3.6	400	28	443	60	± 0.5	65
B5-0505S1		5.0	300	25	454	60	± 0.5	66
B5-1205S1	12	5.0	300	16	184	60	± 0.5	68
B5-1212S1		12.0	125	16	181	100	± 0.5	69
B5-2405S1	24	5.0	300	5	96	60	± 0.5	65
B5-247R2S1		7.2	200	5	91	70	± 0.5	66
B5-2415S1		15.0	100	4	91	120	± 0.5	69
2.0 W Single output Series：								
B5-0505S2	5	5.0	400	45	615	70	± 0.5	65
B5-0509S2		9.0	200	43	545	90	± 0.5	66
B5-1205S2	12	5.0	400	18	252	70	± 0.5	66
B5-1209S2		9.0	200	18	220	90	± 0.5	68
B5-1212S2		12.0	167	18	245	100	± 0.5	68
B5-2405S2	24	5.0	400	5	128	70	± 0.5	65
B5-2412S2		12.0	167	5	121	100	± 0.5	69
3.0 W Single output Series：								
B5-0505S3	5	5.0	600	50	938	70	± 0.5	64
B5-0512S3		12.0	250	45	910	100	± 0.5	66
B5-1205S3	12	5.0	600	20	378	70	± 0.5	66
B5-1209S3		9.0	333	20	362	90	± 0.5	69
B5-1212S3		12.0	250	20	362	100	± 0.5	69
B5-2405S3	24	5.0	600	6	192	70	± 0.5	65
B5-2412S3		12.0	250	6	181	100	± 0.5	66
B5-xxxxSx								

Notes：

1. Standard output voltage is 3.3V, 5V, 9V, 12V, 15V, B5-xxxxSx is for Customer Design.
2. Load regulation is for output current change from 0 % to 100 % Max. Load.
3. Suffix “H” for 3K Vdc Isolation……. (B5-xxxxSxH)
4. Suffix “M” for Metal case …….. (B5-xxxxSxHM)

Mechanical Dimension： (Single O/P)

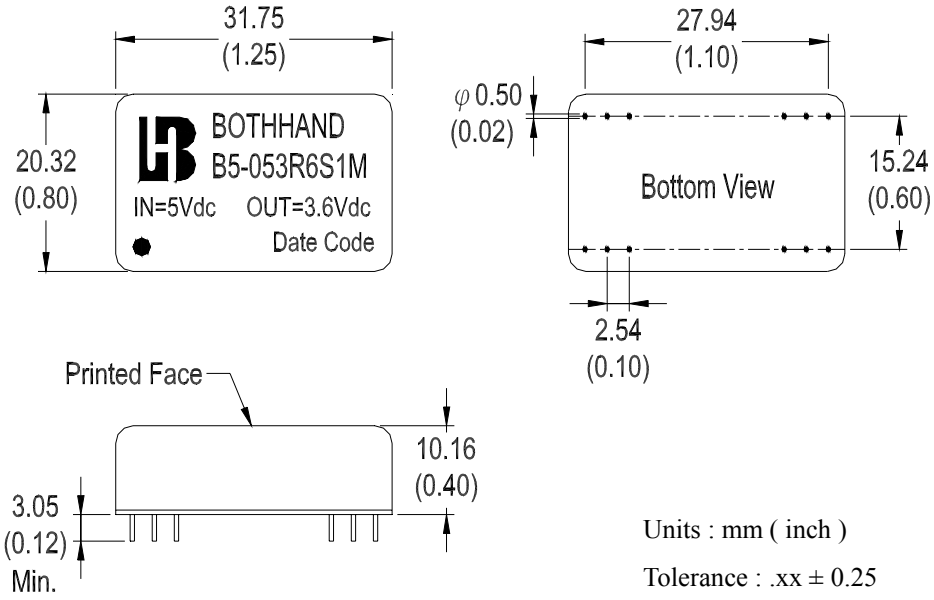
(1). Plastic Case：



Pin	Single Output		Pin
1	+Vin	+Vin	24
2	NC	NC	23
3			22
4	---	---	21
5			20
6			19
7			18
8			17
9			16
10	Vo (-)	Vo (-)	15
11	Vo (+)	Vo (+)	14
12	-Vin	-Vin	13

Note：" --- " means Omitted

(2). Nickel Coated Metal Case：



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

5. Dual Output Selection Guide：

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

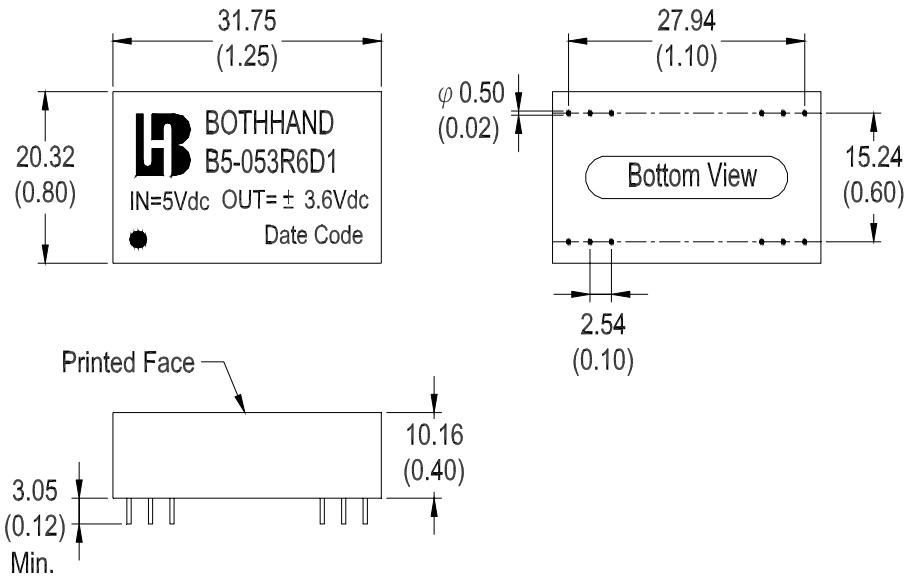
Bothhand Model No.	Input Voltage (Vdc)	Output Voltage (Vdc)	Output Current (mA) Max	Input Current @ No Load (mA) Typ.	Input Current @ Max. Load (mA) Typ.	Output Ripple (mV) Max.	Load Regulation (%) Max.	Efficiency (%) Typ.
1.5 W Dual output Series：								
B5-053R6D1	5	± 3.6	± 200	28	443	70	± 2	65
B5-0505D1		± 5.0	± 150	25	454	70	± 2	66
B5-1205D1	12	± 5.0	± 150	16	184	70	± 2	68
B5-1212D1		± 12.0	± 63	16	181	100	± 2	69
B5-2405D1	24	± 5.0	± 150	5	96	70	± 2	65
B5-247R2D1		± 7.2	± 100	5	91	75	± 2	66
B5-2415D1		± 15.0	± 50	4	91	120	± 2	69
2.0 W Dual output Series：								
B5-0505D2	5	± 5.0	± 200	45	615	70	± 2	65
B5-0512D2		± 12.0	± 83	43	606	100	± 2	66
B5-1205D2	12	± 5.0	± 200	18	252	70	± 2	66
B5-2405D2	24	± 5.0	± 200	5	128	70	± 2	65
B5-2412D2		± 12.0	± 83	5	121	100	± 2	69
3.0 W Dual output Series：								
B5-0505D3	5	± 5.0	± 300	50	938	70	± 2	64
B5-0512D3		± 12.0	± 125	45	910	100	± 2	66
B5-1205D3	12	± 5.0	± 300	20	378	70	± 2	66
B5-1212D3		± 12.0	± 125	20	362	100	± 2	69
B5-2405D3	24	± 5.0	± 300	6	192	70	± 2	65
B5-2412D3		± 12.0	± 125	6	181	100	± 2	69
B5-2415D3		± 15.0	± 100	6	181	120	± 2	69
B5-xxxxDx								

Notes：

1. Standard output voltage is ±5V, ±12V, ±15V, B5-xxxxDx is for Customer Design.
2. Load regulation is for Each output current change from 20 % to 100 % Max. Load.
3. Suffix “H” for 3K Vdc Isolation. (B5-xxxxDxH)
4. Suffix “M” for Metal case, “P” for Plastic case.

Mechanical Dimension： (Dual O/P)

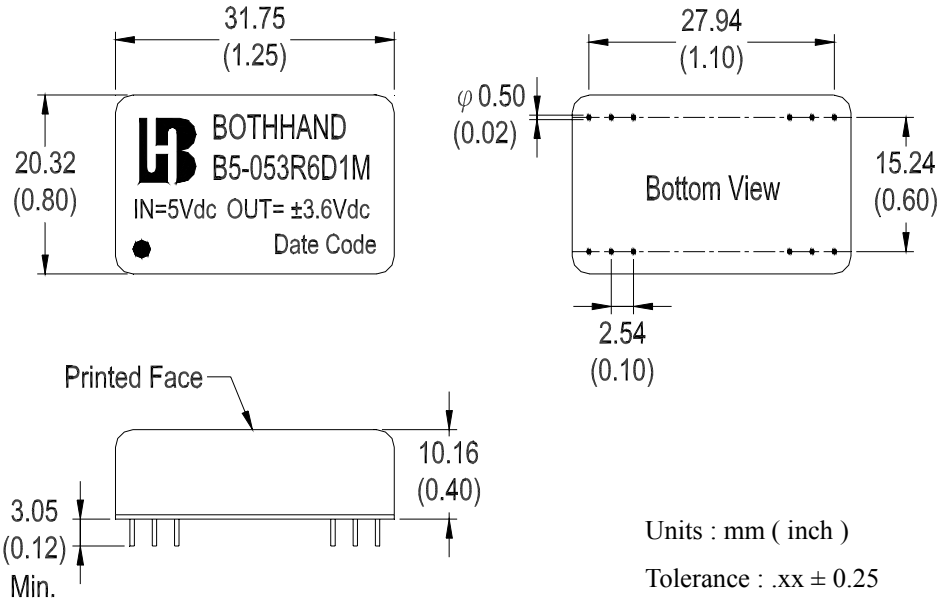
(1). Plastic Case：



Pin	Dual Output		Pin
1	+Vin	+Vin	24
2	Vo (-)	Vo (-)	23
3	Common	Common	22
4	---	---	21
5			20
6			19
7			18
8			17
9			16
10	Common	Common	15
11	Vo (+)	Vo (+)	14
12	-Vin	-Vin	13

Note：" --- " means Omitted

(2). Nickel Coated Metal Case：



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)