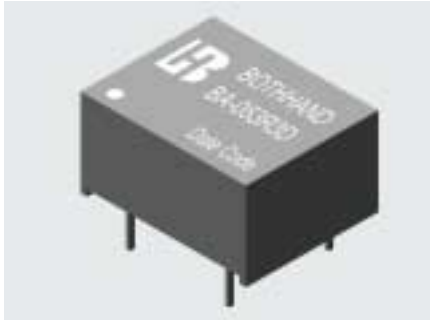


1. Features :

<ul style="list-style-type: none"> ■ 8 Pin DIL Package 	
<ul style="list-style-type: none"> ■ Low Ripple and Noise 	
<ul style="list-style-type: none"> ■ Input / Output Isolation 1000 Vdc 	
<ul style="list-style-type: none"> ■ 100 % Burn-In 	
<ul style="list-style-type: none"> ■ Input Filter with Internal Capacitor 	
<ul style="list-style-type: none"> ■ 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		---	---	1.0	W
Output Short circuit duration		---	---	1.0	Second
Operating temperature	Output Full Load	-40	---	+85	°C
Storage temperature		-55	---	+105	

3. Nominal Input / Output Electrical Specifications :

(Specifications typical at Ta = +25°C , 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	---	---	± 5.0	%
Voltage Balance (Dual Outputs)		---	---	± 1.0	
Switching Frequency		---	100	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% / °C
Isolation Voltage	60 Seconds / 0.5mA	1000	---	---	Vdc
Isolation Resistance	500 Vdc	1000	---	---	MΩ
Isolation Capacitance	1 KHz / 250 mV rms	---	40	---	pF
Max. Line Regulation (Per 1.0 % change in input change)		---	---	1.3	%

4. Single Output Selection Guide :

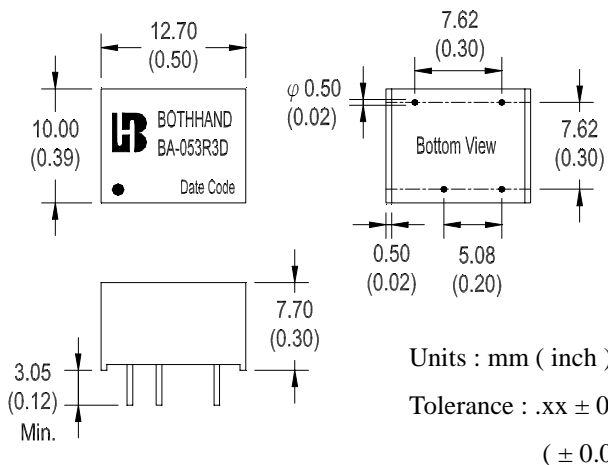
(Specifications typical at Ta = +25 °C , Nominal input voltage, Rated output current unless otherwise noted)

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.
0.5 W Single Output Series :								
BA-053R3D	5	3.3	150	28	133	60	± 12	74
BA-0505D		5.0	100	28	135	60	± 10	74
BA-0512D		12.0	42	28	133	100	± 8	76
BA-1205D	12	5.0	100	18	56	60	± 8	74
BA-1212D		12.0	42	18	55	100	± 8	76
BA-2405D	24	5.0	100	5	29	60	± 8	72
1.0 W Single Output Series :								
BA-053R3D1	5	3.3	300	30	267	60	± 10	74
BA-0505D1		5.0	200	30	253	60	± 8	79
BA-0512D1		12.0	100	30	307	100	± 8	78
BA-1205D1	12	5.0	200	18	105	60	± 8	79
BA-1212D1		12.0	83	18	105	100	± 8	79
BA-2405D1	24	5.0	200	5	54	60	± 8	77
BA-xxxxD1								

Notes :

- Standard output voltage is 3.3V, 5V, 9V, 12V, 15V, BA-xxxxD1 is for Customer Design.
- Load regulation is for Each output current change from 20 % to 100 % Max. Load.

Mechanical Dimension :



Pin	1K Vdc - Single		Pin
1	-Vin	---	8
2	---	Vo (-)	7
3	---	---	6
4	+Vin	Vo (+)	5

Note : " --- " means Omitted

5. Dual Output Selection Guide :

5.1. 1K Vdc Isolation – 1.0 W Dual Output

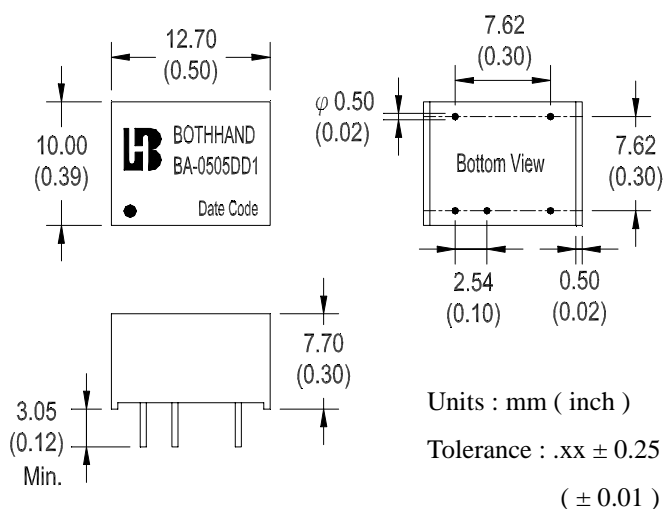
(Specifications typical at Ta = +25 °C, Nominal input voltage, Rated output current unless otherwise noted)

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.
BA-0505DD1	5	± 5.0	± 100	30	263	70	± 10	76
BA-0512DD1		± 12.0	± 42	30	253	100	± 8	79
BA-0515DD1		± 15.0	± 34	30	255	120	± 8	80
BA-1205DD1	12	± 5.0	± 100	18	104	70	± 8	80
BA-1212DD1		± 12.0	± 42	18	104	100	± 8	80
BA-2405DD1	24	± 5.0	± 100	5	55	70	± 8	76
BA-2412DD1		± 12.0	± 42	4	55	100	± 8	76
BA-2415DD1		± 15.0	± 34	4	55	120	± 8	76
BA-xxxxDD1								

Notes :

- Standard output voltage is ±5V, ±9V, ±12V, ±15V, BA-xxxxDD1 is for Customer Design.
- Load regulation is for Each output current change from 20 % to 100 % Max. Load.

Mechanical Dimension :



Pin	1K Vdc - Dual		Pin
1	-Vin	Vo (-)	8
2	---	Common	7
3	---	---	6
4	+Vin	Vo (+)	5

Note : " --- " means Omitted

5.2. 1K Vdc Isolation – 1.0 W Dual Separate Output

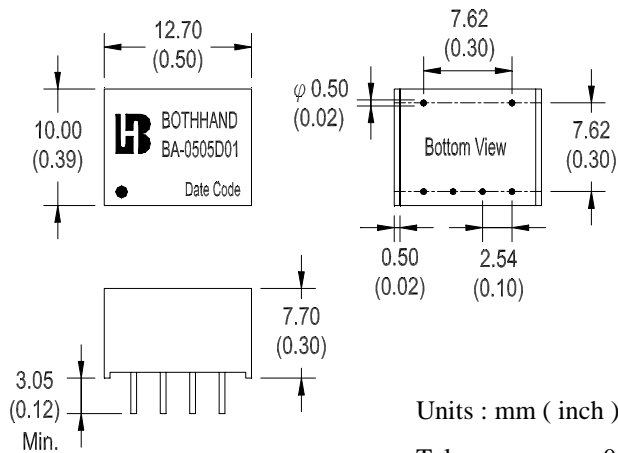
(Specifications typical at Ta = +25 °C, Nominal input voltage, Rated output current unless otherwise noted)

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.
		5.0	5.0	100	100	30	263	70	± 10	76
BA-0505D01	5	5.0	5.0	100	100	30	263	70	± 10	76
BA-0515D01		15.0	15.0	35	35	30	262	120	± 8	80
BA-1205D01	12	5.0	5.0	100	100	18	104	70	± 8	80
BA-1212D01		12.0	12.0	42	42	18	106	100	± 8	80
BA-1215D01		15.0	15.0	34	34	18	106	120	± 8	80
BA-2405D01	24	5.0	5.0	100	100	5	55	70	± 8	76
BA-xxxxD01										

Notes :

1. BA-xxxxD01 is for Customer Design.
2. Load regulation is for Each output current change from 20 % to 100 % Max. Load.

Mechanical Dimension :



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

Pin	1K Vdc - Dual Separate		Pin
1	-Vin	Vo2 (-)	8
2	---	Vo2 (+)	7
3		Vo1 (-)	6
4	+Vin	Vo1 (+)	5

Note : " --- " means Omitted