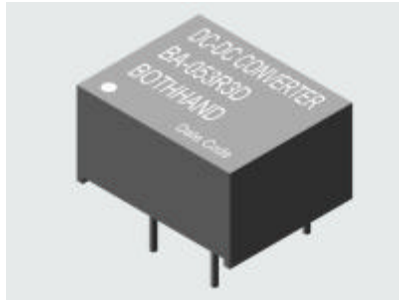


1. Features :

■ 8 Pin DIL Package	
■ Low Ripple and Noise	
■ Input / Output Isolation 1000 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		---	---	1.0	W
Output Short circuit duration		---	---	1.0	Second
Operating temperature	Output Full Load	-40	---	+85	Deg
Storage temperature		-55	---	+125	

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		---	80	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% / °
Isolation Voltage	60 Seconds	1000	---	---	Vdc
Isolation Resistance	500 Vdc	1000	---	---	M?
Isolation Capacitance	1 KHz / 250 mV rms	---	60	---	pF
Max. Line Regulation (Per 1.0 % change in input change)		---	---	1.2	%

4. Single Output Selection Guide :

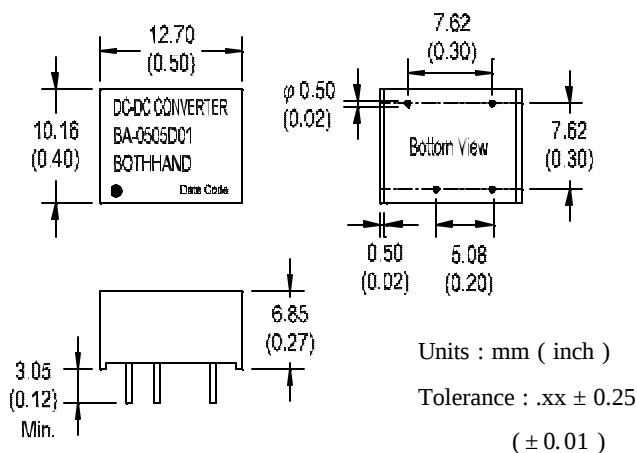
(Specifications typical at Ta = +25 °C, Nominal input voltage, Rated output current unless otherwise noted)

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	16	133	75	± 8	74
BA-0505D		5.0	100	16	135	75	± 8	74
BA-0512D		12.0	42	16	133	75	± 8	76
BA-1205D	12	5.0	100	14	56	75	± 8	74
BA-1212D		12.0	42	14	55	75	± 8	76
BA-2405D	24	5.0	100	8	29	75	± 8	72
1.0 W Single Output Series :								
BA-053R3D1	5	3.3	300	16	267	75	± 8	74
BA-0505D1		5.0	200	16	253	75	± 8	79
BA-0512D1		12.0	100	16	307	75	± 8	78
BA-1205D1	12	5.0	200	14	105	75	± 8	79
BA-1212D1		12.0	100	14	105	75	± 8	79
BA-2405D1	24	5.0	200	8	56	75	± 8	74
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

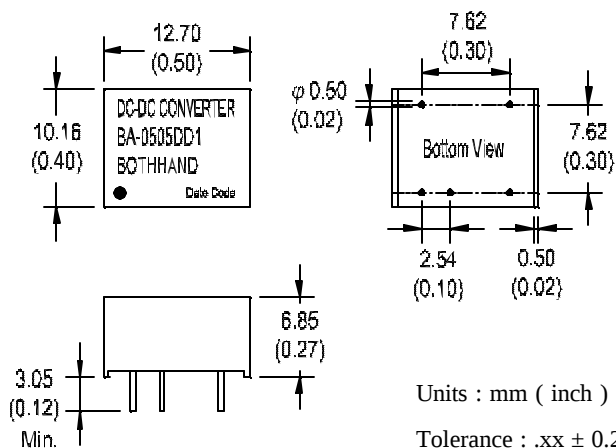
(Specifications typical at Ta = +25 °C, Nominal input voltage, Rated output current unless otherwise noted)

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	16	281	75	± 8	71
BA-0512DD1		± 12.0	± 50	18	303	75	± 8	79
BA-0515DD1		± 15.0	± 35	20	262	75	± 8	80
BA-1205DD1	12	± 5.0	± 100	11	119	75	± 8	70
BA-1212DD1		± 12.0	± 50	10	125	75	± 8	80
BA-2405DD1	24	± 5.0	± 100	6	55	75	± 8	76
BA-2412DD1		± 12.0	± 50	8	65	75	± 8	76
BA-2415DD1		± 15.0	± 35	8	58	75	± 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:



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

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

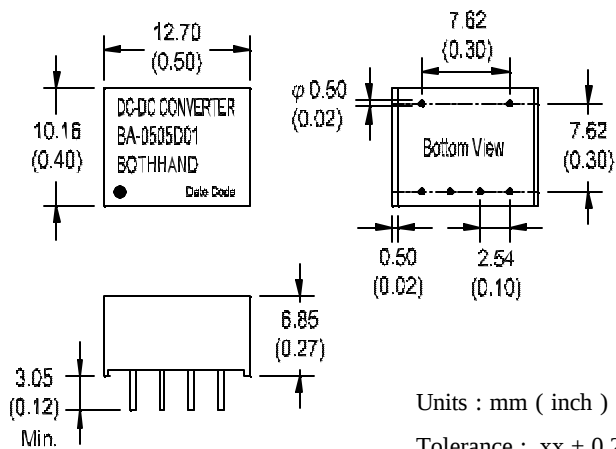
(Specifications typical at Ta = +25 °C, Nominal input voltage, Rated output current unless otherwise noted)

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.
BA-0505D01	5	5.0	5.0	100	100	16	277	75	± 8	72
BA-0515D01		15.0	15.0	35	35	20	262	75	± 8	80
BA-1205D01	12	5.0	5.0	100	100	11	119	75	± 8	70
BA-1212D01		12.0	12.0	50	50	10	125	75	± 8	80
BA-1215D01		15.0	15.0	35	35	13	112	75	± 8	78
BA-2405D01	24	5.0	5.0	100	100	6	54	75	± 8	76
BA-xxxxD01										

Notes :

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

Mechanical Dimension:



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

Note: " --- " means Omitted