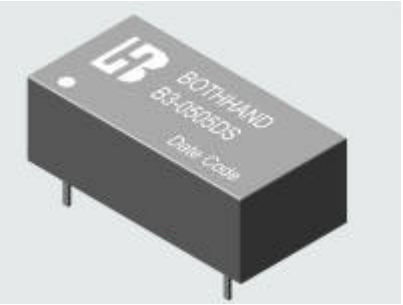
1. Features :

■ 14 Pin DIL 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		---	---	2	W
Output Short circuit duration		---	---	1.0	Second
Operating temperature *	Output Full Load	-40	---	+85	
Storage temperature		-55	---	+105	

* To be measured at case plate temperature.

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	---	---	± 5.0	%
Output Voltage Balance	Dual Output same Load	---	---	± 1.0	
Switching Frequency	Nominal Input	---	110	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% /
Isolation Voltage	Standard Series	1000	---	---	Vdc
	High Isolation Series	3000	---	---	
Isolation Resistance	500 Vdc	1000	---	---	M
Isolation Capacitance	1 KHz / 250 mV rms	---	50	---	pF
Max. Line Regulation (Per 1.0 % change in input change)		---	---	1.3	%

4. Model Selection Guide

4.1. 1K Vdc Isolation - Single output

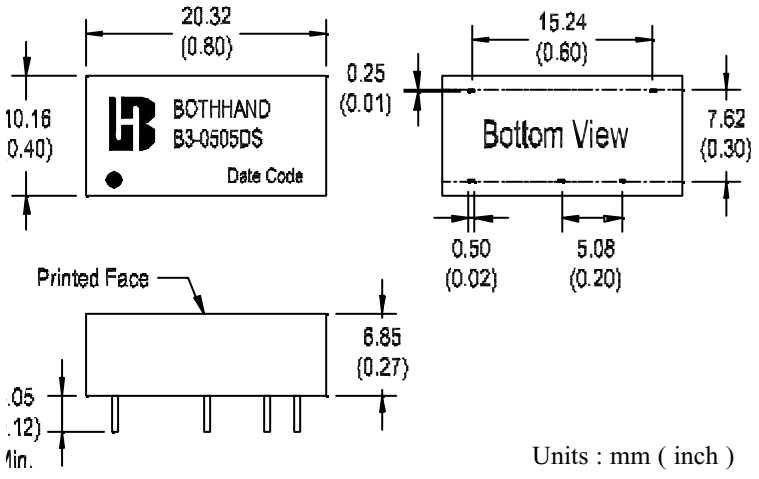
(Specifications typical at Ta = +25 , Nominal input voltage, Rated output current unless otherwise noted)

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.
B3-0505DS	5	5.0	400	45	506	70	±8	79
B3-0512DS		12.0	167	42	500	100	±8	80
B3-1205DS	12	5.0	400	26	211	70	±8	79
B3-1212DS		12.0	167	25	208	100	±8	80
B3-1215DS		15.0	134	24	206	120	±8	81
B3-2405DS	24	5.0	400	8	105	70	±8	79
B3-2412DS		12.0	167	7	101	100	±8	82
B3-xxxxDS								

Notes

1. Standard output voltage is 5V, 9V, 12V, 15V, B3-xxxxDS is for Customer Design.
2. Load regulation is for output current change from 20 % to 100 % Max. Load.

Mechanical Dimension



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

Pin	1K Vdc - Single		Pin
1	-Vin	+Vin	14
2		---	13
3			12
4	---	Vo (-)	11
5		---	10
6		Vo (+)	9
7	NC	---	8

Note " --- " means Omitted

4.2. 1K Vdc Isolation - Dual output

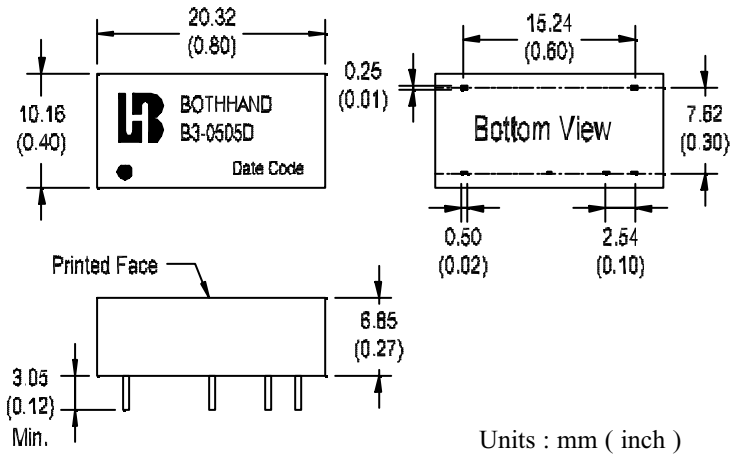
(Specifications typical at Ta = +25 , Nominal input voltage, Rated output current unless otherwise noted)

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.
B3-0505D	5	±5.0	± 200	45	513	70	±8	78
B3-0512D		± 12.0	±84	42	500	100	±8	80
B3-0515D		± 15.0	±67	35	494	120	±8	81
B3-1205D	12	±5.0	± 200	26	214	70	±8	78
B3-1212D		± 12.0	±84	25	208	100	±8	80
B3-1215D		± 15.0	±67	24	208	120	±8	80
B3-2405D	24	±5.0	± 200	8	107	70	±8	78
B3-247R2D		±7.2	± 139	8	107	75	±8	78
B3-2412D		± 12.0	±84	7	103	100	±8	81
B3-2415D		± 15.0	±67	7	102	120	±8	82
B3-xxxxD								

Notes

1. Standard output voltage is ±5V, ±9V, ±12V, ±15V, B3-xxxxD is for Customer Design.
2. Load regulation is for each output current change from20 % to 100 % Max. Load.

Mechanical Dimension



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

Pin	1K Vdc - Dual		Pin
1	-Vin	+Vin	14
2		---	13
3			12
4	---	Vo (-)	11
5		---	10
6		Vo (+)	9
7	NC	Common	8

Note " --- " means Omitted

4.3. 3K Vdc Isolation - Single output

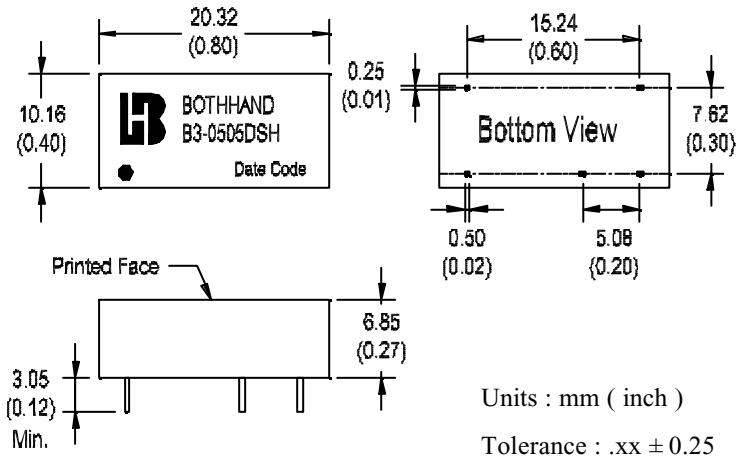
(Specifications typical at Ta = +25 , Nominal input voltage, Rated output current unless otherwise noted)

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.
B3-0505DSH	5	5.0	400	45	506	70	±8	79
B3-0512DSH		12.0	167	42	500	100	±8	80
B3-0515DSH		15.0	134	35	494	120	±8	81
B3-1205DSH	12	5.0	400	26	211	70	±8	79
B3-1212DSH		12.0	167	25	208	100	±8	80
B3-2405DSH	24	5.0	400	8	105	70	±8	79
B3-2412DSH		12.0	167	7	102	100	±8	82
B3-2415DSH		15.0	133	7	102	120	±8	82
B3-xxxxDSH								

Notes

1. Standard output voltage is 5V, 9V, 12V, 15V, B3-xxxxDSH is for Customer Design.
2. Load regulation is for output current change from 20 % to 100 % Max. Load.

Mechanical Dimension



Units : mm (inch)

Tolerance : .xx ± 0.25

(± 0.01)

Pin	3K Vdc - Single		Pin
1	-Vin	+Vin	14
2			13
3		---	12
4	---		11
5		Vo (-)	10
6		---	9
7	NC	Vo (+)	8

Note " --- " means Omitted

4.4. 3K Vdc Isolation - Dual output

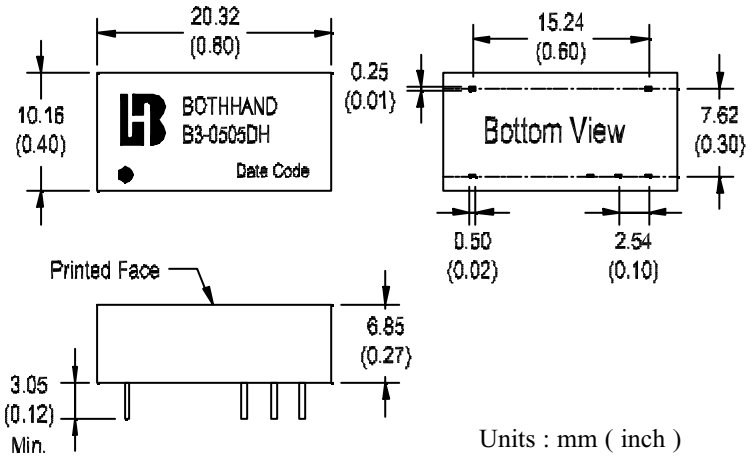
(Specifications typical at Ta = +25 , Nominal input voltage, Rated output current unless otherwise noted)

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.
B3-0505DH	5	±5.0	± 200	45	513	70	±8	78
B3-0515DH		±15.0	±67	35	494	120	±8	81
B3-1205DH	12	±5.0	± 200	26	214	70	±8	78
B3-1212DH		±12.0	±84	25	205	100	±8	80
B3-2405DH	24	±5.0	± 200	8	111	70	±8	78
B3-247R2DH		±7.2	± 139	8	107	75	±8	78
B3-2412DH		±12.0	±84	7	103	100	±8	81
B3-2415DH		±15.0	±67	7	102	120	±8	82
B3-xxxxDH								

Notes

1. Standard output voltage is ±5V, ±9V, ±12V, ±15V, B3-xxxxDH 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	3K Vdc - Dual		Pin
1	-Vin	+Vin	14
2			13
3		---	12
4	---		11
5		Vo (-)	10
6		Common	9
7	NC	Vo (+)	8

Note ” --- “ means Omitted