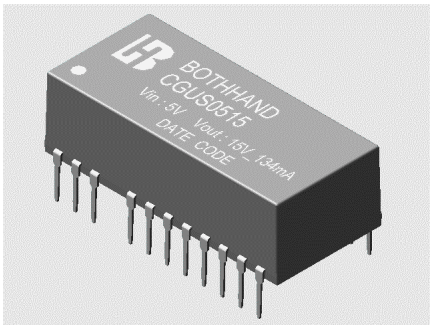
1. Features :

- 24 Pin DIL Package
- Low Ripple and Noise
- Input / Output Isolation 1K 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	Nominal Input Range	---	---	1	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	---	± 2.0	± 5.0	%
Output Voltage Balance	Dual Output at same Load	---	---	± 1.0	
Switching Frequency	Nominal Input	---	100	---	KHz
Temperature Coefficient		---	± 0.01	± 0.02	% / ℃
Isolation Voltage	60 Seconds / 0.5mA	1000	---	---	Vdc
Isolation Resistance	500 Vdc	1000	---	---	MΩ
Isolation Capacitance	1 KHz / 250 mV rms	---	60	---	pF
Max. Line Regulation (Per 1.0 % change in input change)		---	---	1.3	%

4. Single Output Selection Guide :

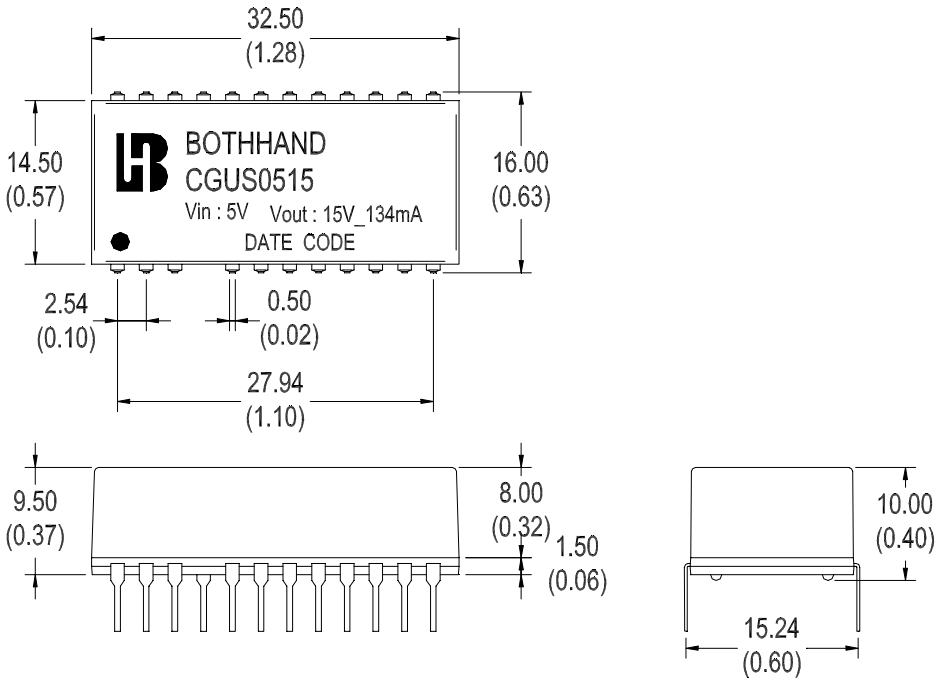
(Specifications typical at Ta = +25 ℃, Nominal input voltage, Rated output current unless otherwise noted)

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.
CGUS0505	5	5.0	400	45	506	60	± 10	79
CGUS0509		9.0	222	43	506	80	± 8	79
CGUS0512		12.0	167	43	501	100	± 8	80
CGUS0515		15.0	134	43	496	120	± 8	81
CGUS1205	12	5.0	400	25	211	60	± 8	79
CGUS1212		12.0	167	24	209	100	± 8	80
CGUS1215		15.0	134	23	207	120	± 8	81
CGUS2405	24	5.0	400	8	105	60	± 8	79
CGUS2415		15	134	7	105	120	± 8	80
CGUSxxyy								

Notes：

1. Standard output voltage is 3.3V, 5V, 9V, 12V, 15V, CGRSxxyy is for Customer Design.
2. Load regulation is for output current change from 20 % to 100 % Max. Load.

Mechanical Dimension： (Single O/P)



Units : mm (inch)

Tolerance : .xx ± 0.25 (± 0.01)

Pin	1K Vdc - Single		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

5. Dual Output Selection Guide :

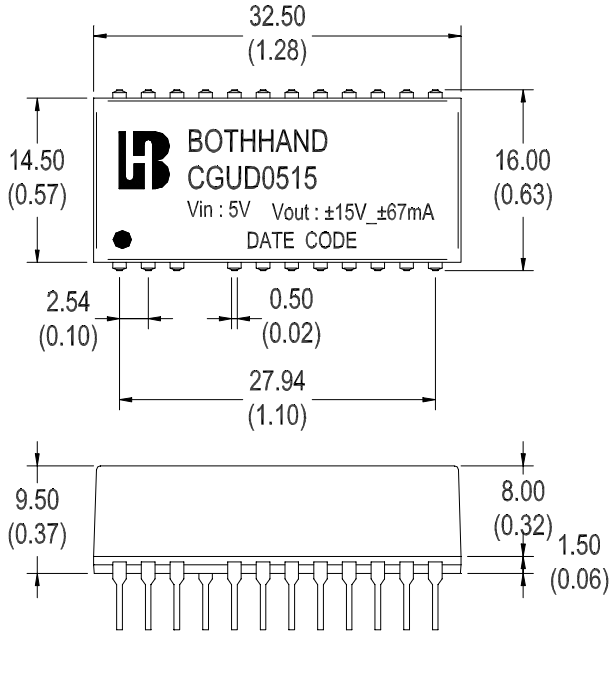
(Specifications typical at Ta = +25 ℃, Nominal input voltage, Rated output current unless otherwise noted)

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.
CGUD0505	5	± 5.0	± 200	45	513	60	± 10	78
CGUD0509		± 9.0	± 111	43	506	80	± 8	79
CGUD0512		± 12.0	± 84	43	504	100	± 6	80
CGUD0515		± 15.0	± 67	43	496	120	± 5	81
CGUD1205	12	± 5.0	± 200	24	214	60	± 8	78
CGUD1212		± 12.0	± 84	23	210	100	± 5	80
CGUD1215		± 15.0	± 67	23	209	120	± 5	80
CGUD2405	24	± 5.0	± 200	8	107	60	± 8	78
CGUD2415		± 15.0	± 67	8	102	120	± 5	82
CGUDxxyy								

Notes：

1. Standard output voltage is ±5V, ±12V, ±15V, CGUDxxyy is for Customer Design.
2. Load regulation is for Each output current change from 20 % to 100 % Max. Load.

Mechanical Dimension： (Dual O/P)



Units : mm (inch)

Tolerance : .xx ± 0.25 (± 0.01)

Pin	1K Vdc - Dual		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