FEATURES

- Small volume, high power density
- High efficiency, low output ripple and noise
- Low zero-load power consumption, low static current
- Long time short circuit protection and self-recovery
- superior thermal stability and temperature characteristics
- Wide temperature performance at full 1 watt load: -40℃ ~ +85℃
- Isolation Voltage:1500VDC
- High Reliability（MTTF≥350 ten thousand hours）
- International standard SIP package, save PCB installation space
- Environmental design, ROHS compliant
- 100% full load aging



RoHS

Isolate/Stabilivolt

Single output

PRODUCT MODEL LIST

Order Code	Norminal Input Voltage (V)		Norminal Output Voltage		Efficiency [Typ] (%)	Capacitive Load [Max] (uF)
	Norminal	Range	Voltage (V)	Current (mA)		
IB0503SY-2WR1	5	4.75~5.25	3.3	606	75	3300
IB0505SY-2WR1			5	400	79	2200
IB0512SY-2WR1			12	167	75	2200
IB0524SY-2WR1			24	83	76	1000
IB1205SY-2WR1	12	11.4~12.6	5	400	73	2200
IB1212SY-2WR1			12	167	73	2200
IB1224SY-2WR1			24	83	72	1000
IB1505SY-2WR1	15	14.25~15.75	5	400	71	2200
IB1512SY-2WR1			12	167	81	100
IB1515SY-2WR1			15	133	80	1000
IB1524SY-2WR1			24	83	72	1000
IB2405SY-2WR1	24	22.8~25.2	5	400	72	2200
IB2412SY-2WR1			12	167	75	2200
IB2415SY-2WR1			15	133	78	1000

OUTPUT CHARACTERISTICS

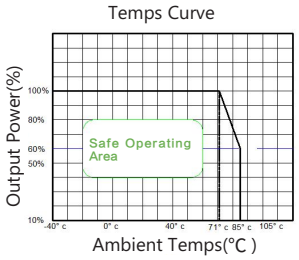
Parameter	Conditions		Min.	Typ.	Max.	Units
Output Power			0.2		2	W
Line Voltage Regulation	Input voltage change ±1% at rated load				±0.5	%
Load Regulation	Load varies from 10% to 100% at nominal input				±2	
Output voltage accuracy	100% load				±3	
Quiescent Current	Output load is 0 at nominal input	IB05XX		≤20		mA
		etc.		≤10		
Temps Drift Coefficient	Rated load				±0.03	%/℃
Ripple & Noise	At 20MHz bandwidth			30	60	mVp-p
Switching Frequency	Rated input voltage			280		KHz
Output Short Circuit Protection	Sustainable and automatic restoration					
Input Filter	Filter capacitor					
Hot Plug	Nonsupport					

Insulation Characteristic

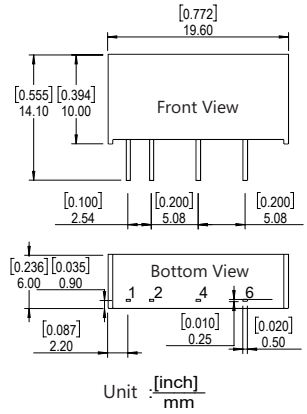
Parameter	Conditions	Min.	Typ.	Max.	Units
Insulation Resistance	500VDC	1000			MΩ
Insulation Voltage	Test time 1 minute, leakage current less than 1 mA	1500			VDC

General Characteristic

Parameter	Conditions	Min.	Typ.	Max.	Units
Storage Humidity		5		95	%
Operating Temps		-40		85	℃
Storage Temps		-55		125	
Operating Case Temps			15	25	
Pin Welding Temps	Welding joint 1.5mm from case,10 seconds operation			300	
MTTF	MIL-HDBK-217@25℃	350			10000 hours
Weight			2.5		g
Cooling	Free air convection				
Case Material	Flame-retardant and heat-resistant plastic（UL94-V0）				



Shape & Pin Dimensions

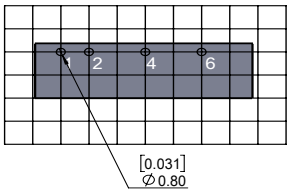


Pin	Function
1	Vin
2	GND
4	0V
6	+Vo

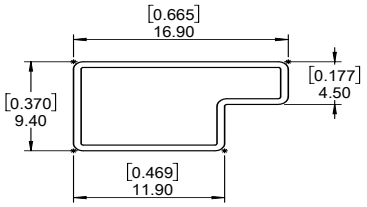
ps:
Terminal section tolerance: ±0.10 [±0.004]
Unmarked tolerance: ±0.25 [±0.010]

PCB

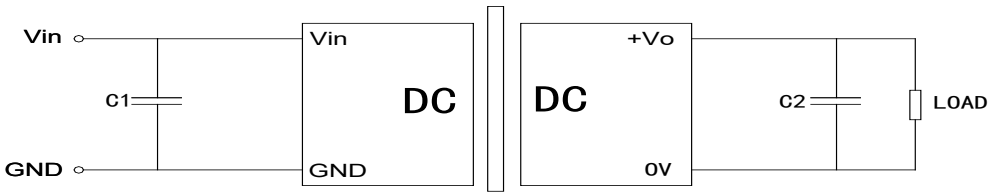
[0.1inch]2.54mm suqare grid



Package Dimensions



Basic Application Circuit



Options of C1、C2:

Input Voltage	External Capacitance	Output Voltage	External Capacitance
5VDC	4.7uF	3.3/5VDC	4.7uF
12VDC	2.2uF	12VDC	2.2uF
15VDC	1uF	24VDC	0.47uF
24VDC	0.47uF	--	--

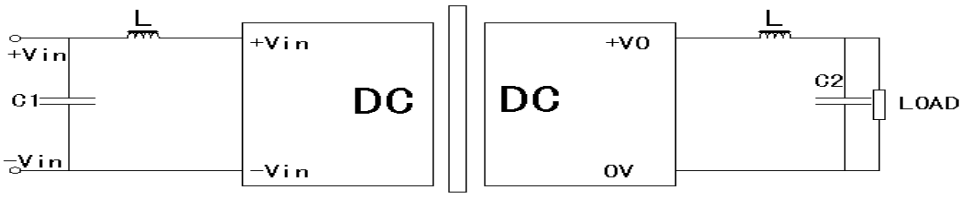
Note

Try To Avoid No-load Use: If the load power consumption is less than 10% of the rated output power of the module, it is recommended to connect a dummy load to the output terminal or select a module with a lower rated power. The dummy load (resistance) can be calculated by 10% of the rated power of the module, and the resistance value is R=U2 / (10% x 2W).

Avoid Excessive Output External Capacitance: The capacity value of the output external capacitor C2 should not be too large, otherwise it is easy to cause overcurrent or bad startup when the module is started. The specific value should be selected according to the external capacitor table.

The input of this series does not support parallel use of hot plug and output.

For situations requiring high ripple noise, external LC filter circuit should be connected, and the resonant frequency of LC filter should be far less than the switching frequency of DC/DC module to prevent mutual interference, resulting in output ripple increase or module damage, as shown in the figure:



Naming Logic Of Constant Voltage Products

