FEATURES :

- 7PIN SIP Package
- No-load input current as low as 5mA
- Continuous short-circuit protection
- High Efficiency up to 89%
- Unregulated Output Types
- 1.5KVDC ~ 3KVDC Isolation
- Operating Temperature:-40℃ to +105℃
- Industry Standard Pinout
- Design refer to IEC62368, UL62368, EN62368

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Voltage	Output Current	Efficiency	Capacitive Load(μF)
	Vdc	mA	%TYP	Max.
14DC-05S05NP2(H3)	5	400	85	2400
14DC-05S09NP2(H3)	9	223	87	820
14DC-05S12NP2(H3)	12	167	87	470
14DC-05S15NP2(H3)	15	133	88	220
14DC-05S24NP2(H3)	24	84	89	100
14DC-05D05NP2(H3)	±5	±200	82	±1200
14DC-05D09NP2(H3)	±9	±112	85	±330
14DC-05D12NP2(H3)	±12	±84	87	±330
14DC-05D15NP2(H3)	±15	±67	88	±100
14DC-05D24NP2(H3)	±24	±42	89	±47
14DC-XXS05NP2(H3)	5	400	85	2400
14DC-XXS09NP2(H3)	9	223	87	820
14DC-XXS12NP2(H3)	12	167	87	470
14DC-XXS15NP2(H3)	15	133	88	220
14DC-XXS24NP2(H3)	24	84	89	100
14DC-XXD05NP2(H3)	±5	±200	82	±1200
14DC-XXD09NP2(H3)	±9	±112	85	±330
14DC-XXD12NP2(H3)	±12	±84	87	±330
14DC-XXD15NP2(H3)	±15	±67	88	±100
14DC-XXD24NP2(H3)	±24	±42	89	±47

Note:

1. No suffix is standard isolation (1.5KVDC) e.g, 14DC-12S05NP2 , *add suffix "H3" for 3KVDC isolation, e.g, 14DC-12S05NP2H3
2. " XX " is input voltage : 12=12Vdc,15=15Vdc, 24=24Vdc e.g, 14DC-12S05NP2, 14DC-15S12NP2H3

YUAN DEAN SCIENTIFIC

DC-DC Converter

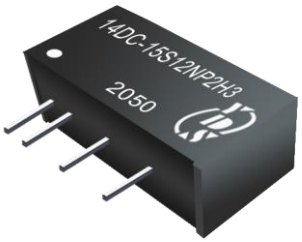
14DC-2W SERIES

2Watt

1.5KV ~ 3KV Isolated

Single & Dual Output

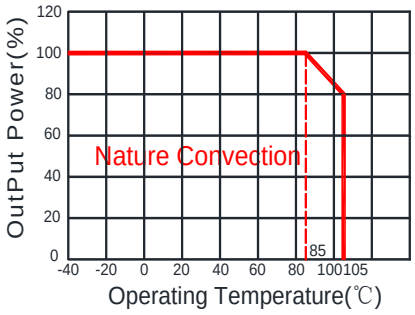
SIP7



ROHS COMPLIANT

3 YEARS WARRANTY

Temperature Derating Graph



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E-MAIL: ydsweb@yds.com.tw

Rev: 1 2024/04/08

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Range	Vo, Io Nom		±10		%
Filter	Capacitor				

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	Continuous				
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	5V (10% To 100% F.L)		8	15	%
	9V (10% To 100% F.L)		6	10	%
	12V (10% To 100% F.L)		5	10	%
	15V (10% To 100% F.L)		4	10	%
	24V (10% To 100% F.L)		3	10	%
Ripple & Noise	BW=DC To 20MHz		75	150	mVp-p

General Specifications

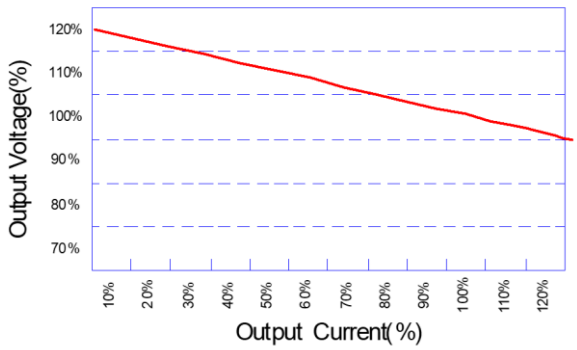
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Isolation Capacitance	Input-output, 100KHz/0.1V		20		pF
Switching Frequency	Full load, nominal input		250		KHz
Operation Temperature		-40		+105	℃
Storage Temperature		-55		+125	℃
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25℃	3500000			Hours
Weight			2.1		g
Dimensions			19.5x6.0x10.0		mm

Part Number

14DC - 15 S 12 N P 2 H3
A B C D E F G H

A:Series
B:Input Voltage
C:Single(S)/Dual(D)Output
D:Output Voltage
E:Unregulated(N)
F:Protection
G:Output Power
H:Isolation Voltage

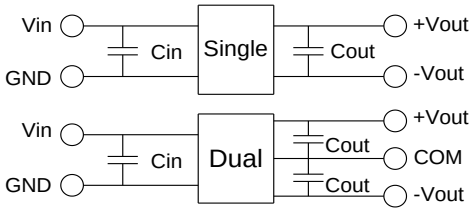
Tolerance Envelope Graph



Electromagnetic Compatibility (EMC)

EMI	CE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)
	RE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)
EMS	ESD	IEC/EN61000-4-2 Air ±8kV , Contact ±6kV perf. Criteria B

Recommended Test Circuit



Vin	Cin	Single Vout	Cout	Dual Vout	Cout
5Vdc	4.7μF/25V	5Vdc	10μF/16V	±5Vdc	±4.7μF/16V
12Vdc	2.2μF/25V	9Vdc	2.2μF/16V	±9Vdc	±1μF/16V
15Vdc	2.2μF/25V	12Vdc	2.2μF/25V	±12Vdc	±1μF/25V
24Vdc	1μF/50V	15Vdc	1μF/25V	±15Vdc	±1μF/25V
- -	- -	24Vdc	1μF/50V	±24Vdc	±1μF/50V

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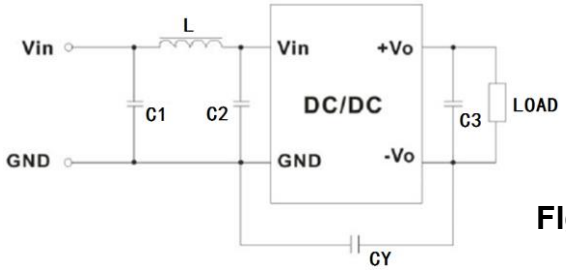
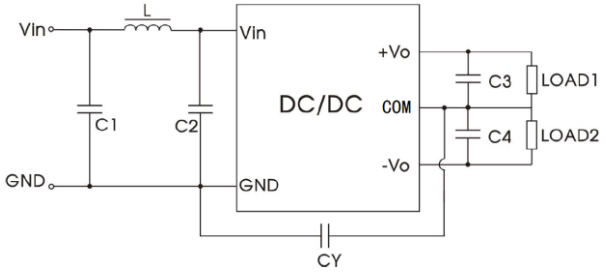
EMC (CLASS B) compliance circuit

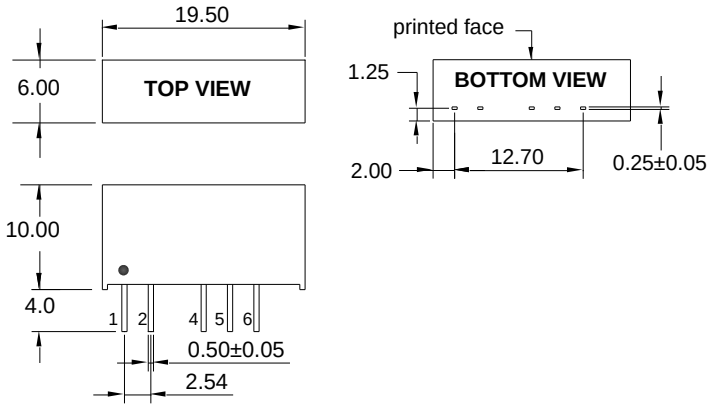


Flg.1



EMC recommended circuit value table		
EMI	C1	4.7μF /50V
	C2	4.7μF /50V
	CY	1nF/4kV
	C3	Recommended Test Circuit
	L	6.8μH

Markings and Dimensions

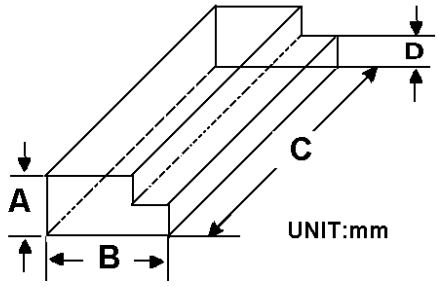


UNIT: mm Unless otherwise specified, all tolerances are ±0.25

PIN Connection

PIN	1	2	4	5	6
Single	+Vin	-Vin	-Vout	No Pin	+Vout
Dual	+Vin	-Vin	-Vout	Com	+Vout

Packaging



Size(mm)			
A	B	C	D
9.5	16.5	522	5.0