

FEATURES :

- 6PIN SIP Package
- No-load input current as low as 5mA
- High Efficiency up to 85%
- Unregulated Output Types
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature:-40°C TO +105°C
- Industry Standard Pinout
- Design refer to IEC62368, UL62368, EN62368

YUAN DEAN SCIENTIFIC



DC-DC Converter

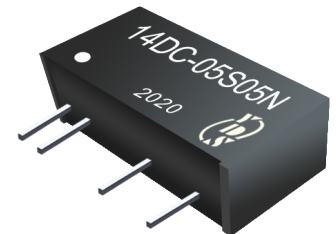
14DC SERIES

1Watt

1.5KVDC & 3KVDC Isolated

Single & Dual Output

SIP 6



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-05S03N(H3)	3.3	303	74	2400
14DC-05S05N(H3)	5	200	82	2400
14DC-05S09N(H3)	9	112	83	1000
14DC-05S12N(H3)	12	84	83	560
14DC-05S15N(H3)	15	67	83	560
14DC-05S24N(H3)	24	42	85	220
14DC-05D03N(H3)	±3.3	±150	74	±1200
14DC-05D05N(H3)	±5	±100	82	±1200
14DC-05D09N(H3)	±9	±56	83	±470
14DC-05D12N(H3)	±12	±42	83	±220
14DC-05D15N(H3)	±15	±34	83	±220
14DC-05D24N(H3)	±24	±21	85	±100

Note :

No suffix is standard isolation (1.5KVDC) e.g, 14DC-05S05N · *add suffix "H3" for 3KVDC isolation, e.g, 14DC-05S05NH3, 14DC-05S12NH3

Input Specifications

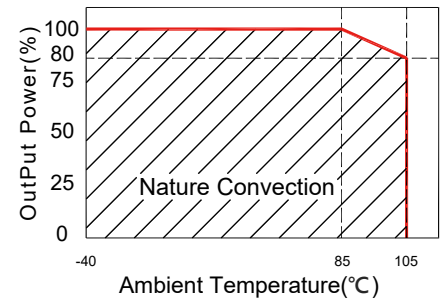
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Vo,Io Nom	4.5	5	5.5	Vdc
Filter	Capacitor				



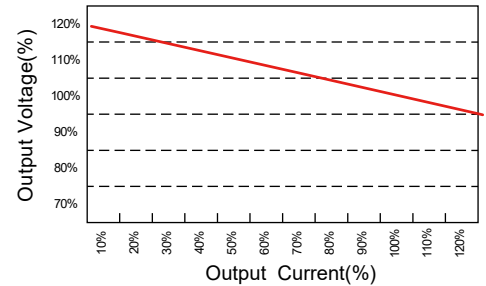
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±5	%
Short Circuit Protection	without suffix			1 Sec	
Line Regulation	For 1.0% OF Vin		1.2		%
Load Regulation	3.3V (10% To 100% F.L)		15	20	%
	5V (10% To 100% F.L)		10	15	%
	9V (10% To 100% F.L)		8	10	%
	12V (10% To 100% F.L)		7	10	%
	15V (10% To 100% F.L)		6	10	%
Ripple & Noise	BW=DC To 20MHz @Other Vo		30	75	mVp-p
	BW=DC To 20MHz @24V Vo		50	100	mVp-p

Temperature Derating Graph



Tolerance Envelope Graph



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		350		KHz
Operation Temperature		-40		+105	°C
Storage Temperature		-55		+125	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight			2.1		g
Dimensions			19.5X6.0X10.0		mm

Part Number

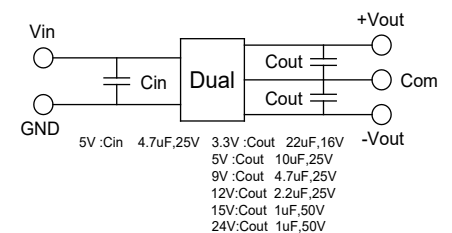
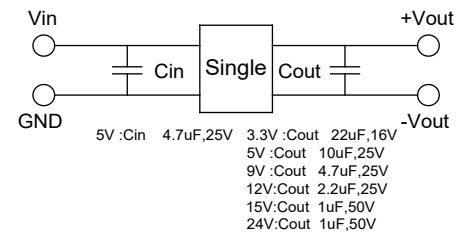
14DC - 05 S 05 N H3
A B C D E F

- A:Series
- B:Input Voltage
- C:Single(S)Dual(D)
- D:Output Voltage
- E:Unregulated(N)
- F:Isolation Voltage

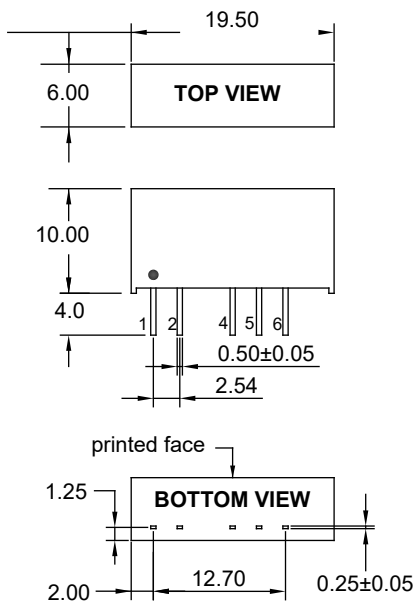
Electromagnetic Compatibility (EMC)

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 ±4kV perf. Criteria B

Recommended Test Circuit



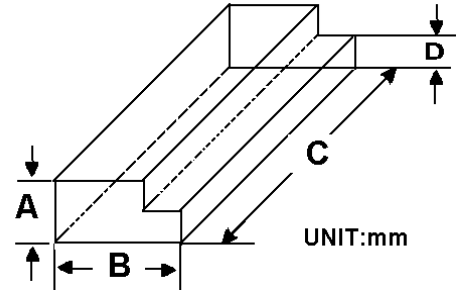
Markings and dimensions



PIN Connection

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

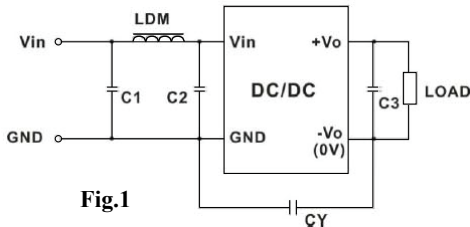
Packing



Size (mm)

A	B	C	D
9.5	16.5	522	5.0

EMC (CLASS B) Compliance Circuit



EMC recommended circuit value table

Input voltage 5VDC	Output voltage (VDC)	3.3/5/9	12/15/24
		C1/C2	4.7uF/25V
	CY	-	1nF/4KVDC
	C3	Refer To The Recommended Test Circuit	
	LDM	6.8uH	6.8uH