

**FEATURES :**

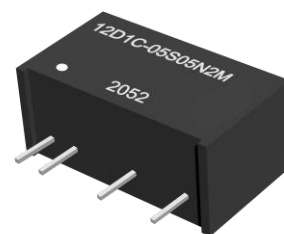
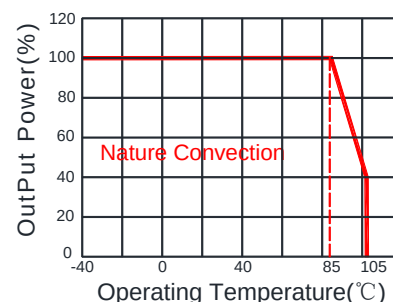
- 7PIN SIP package
- Continuous short-circuit protection
- The leakage current < 2 μ A
- Isolation capacitance as low as 4pF
- Creepage & clearance distance > 5mm
- High efficiency up to 84%
- Unregulated output types
- 5000Vac or 6000KVdc isolation
- Operating temperature:-40°C to +105°C
- Industry standard pinout
- Meet IEC60601 standard

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(μ F)
	Vdc	mA	%TYP	Max.
12D1C-05S05N2M	5	400	80	1000
12D1C-05S09N2M	9	222	80	680
12D1C-05S12N2M	12	167	81	330
12D1C-05S15N2M	15	133	81	330
12D1C-05S24N2M	24	84	81	100
12D1C-05D05N2M	$\pm$ 5	$\pm$ 200	80	$\pm$ 470
12D1C-05D09N2M	$\pm$ 9	$\pm$ 111	80	$\pm$ 330
12D1C-05D12N2M	$\pm$ 12	$\pm$ 84	81	$\pm$ 100
12D1C-05D15N2M	$\pm$ 15	$\pm$ 67	81	$\pm$ 100
12D1C-05D24N2M	$\pm$ 24	$\pm$ 42	81	$\pm$ 47
12D1C-XXS05N2M	5	400	80	1000
12D1C-XXS09N2M	9	222	82	680
12D1C-XXS12N2M	12	167	84	330
12D1C-XXS15N2M	15	133	84	330
12D1C-XXS24N2M	24	84	84	100
12D1C-XXD05N2M	$\pm$ 5	$\pm$ 200	80	$\pm$ 470
12D1C-XXD09N2M	$\pm$ 9	$\pm$ 111	82	$\pm$ 330
12D1C-XXD12N2M	$\pm$ 12	$\pm$ 84	84	$\pm$ 100
12D1C-XXD15N2M	$\pm$ 15	$\pm$ 67	84	$\pm$ 100
12D1C-XXD24N2M	$\pm$ 24	$\pm$ 42	84	$\pm$ 47

Note:

"XX" is input voltage : 12=12Vdc, 15=15Vdc, 24=24Vdc e.g., 12D1C-12S05N2M, 12D1C-15S12N2M, 12D1C-24S15N2M

Volgen**DC-DC Converter****12D1C-N2M SERIES****2 Watt****5KVac or 6KVdc Isolated****Single & Dual Output****SIP7****Temperature Derating****CONTACT US**

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Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	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)			20	%
	Other output (10% To 100% F.L)			15	%
Ripple & Noise	BW=DC To 20MHz@Vo:5V		100	150	mVp-p
	BW=DC To 20MHz@ Other		80	120	mVp-p

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency	Full load, nominal input @5V Vin		215		KHz
	Full load, nominal input @other Vin		250		KHz
Operating Temperature		-40		+105	°C
Patient Leakage Current	250VAC, 50/60Hz			2	μA
Isolation Capacitance	Input-output, 100KHz/0.1V		4		pF
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			4		g
Dimensions			19.5x9.8x12.5		mm

Electromagnetic Compatibility (EMC)

EMI	CE	EN60601-1-2/CISPR 11 GROUP1 CLASS B (see Fig. 1 for recommended circuit)			
	RE	EN60601-1-2/CISPR 11 GROUP1 CLASS B (see Fig. 1 for recommended circuit)			
EMS	ESD	EN60601-1-2 (IEC/EN61000-4-2) Air ±15kV, Contact ±8kV perf. Criteria B			

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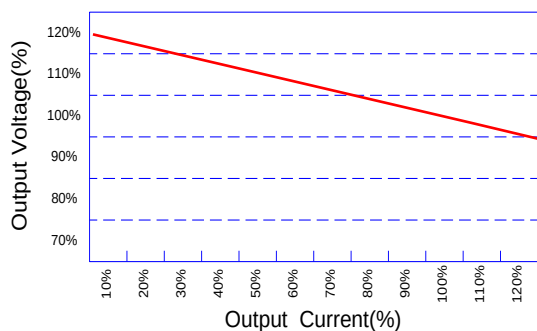
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Tolerance Envelope Graph

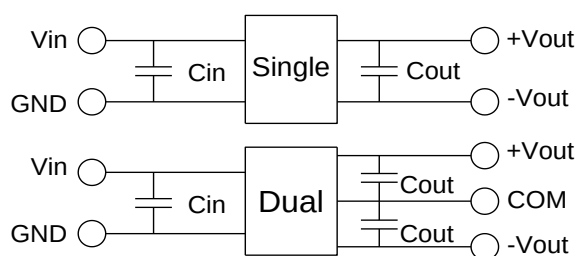


Part Number

12D1C	-	15	D	15	N	2	M
A		B	C	D	E	F	G

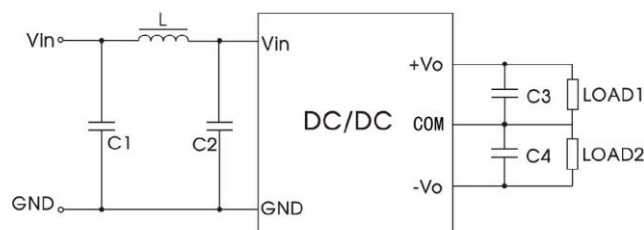
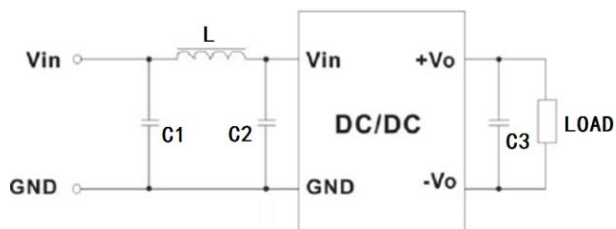
A : Series
 B : Input Voltage
 C : Single(S)/Dual(D) Output
 D : Output Voltage
 E : Unregulated(N)
 F : Output Power
 G : Medical

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

EMC (CLASS B) Compliance Circuit



Flg.1

EMC recommended circuit value table

EMI	C1	22μF /50V
	C2	22μF /50V
	C3, C4	Recommended Test Circuit
	L	22μH

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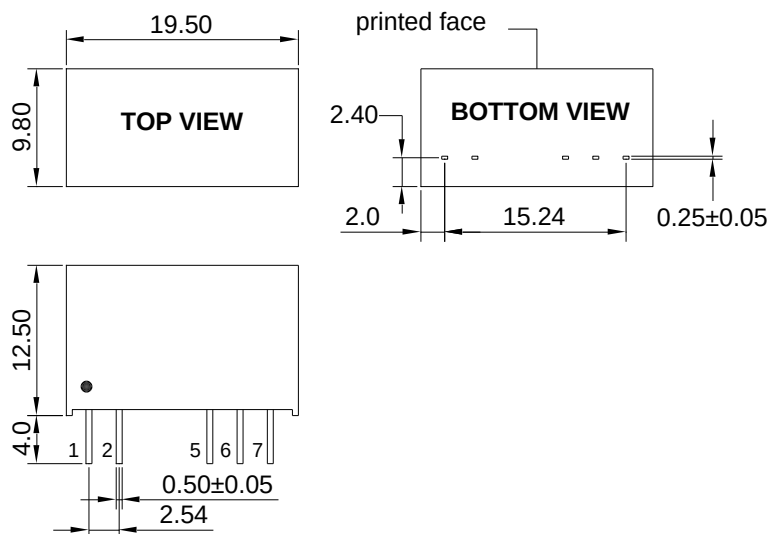
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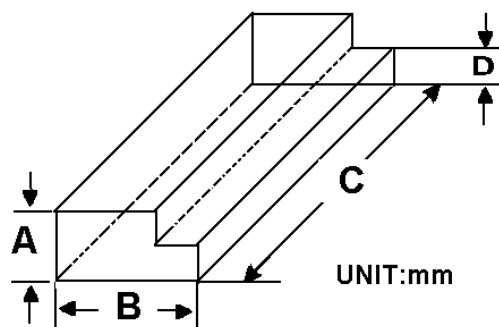




Markings and Dimensions

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

Packaging



TUBE-----25pcs

Size(mm)			
A	B	C	D
12.0	28.55	550	6.0

PIN Connection

PIN	1	2	5	6	7
Single	+Vin	-Vin	-Vout	No Pin	+Vout
Dual	+Vin	-Vin	-Vout	Com	+Vout

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