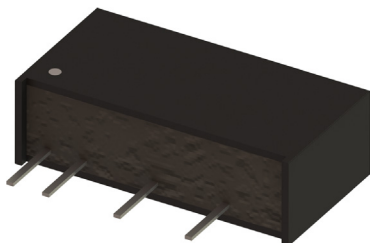


Isolated DC DC Converter multicomp^{PRO}

RoHS
Compliant



Features

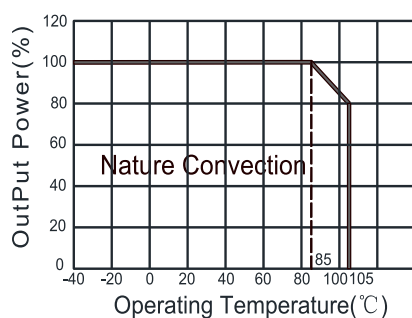
- 7PIN SIP Package
- No-load input current as low as 5mA
- Continuous short-circuit protection
- High Efficiency up to 89%
- Unregulated Output Types
- 1.5KVDC to 3KVDC Isolation
- Operating temperature:-40°C to +105°C
- Industry standard pinout

Specification Table

Typical @ T_A=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Output Voltage	Output Current	Efficiency	Capacitive Load μ F
	V DC	mA	%TYP	Max.
MP14DC-05D12NP2	± 12	± 84	87	± 330
MP14DC-05D15NP2	± 15	± 67	88	± 100
MP14DC-05D24NP2H3	± 24	± 42	89	± 47

Temperature Derating Graph



Input Specifications

Parameters	Conditions	Typ	Units
Voltage Range	V _o , I _o Nom	± 10	%
Filter	Capacitor		

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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	3.3V (10% to 100% F.L)		15	20	
	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

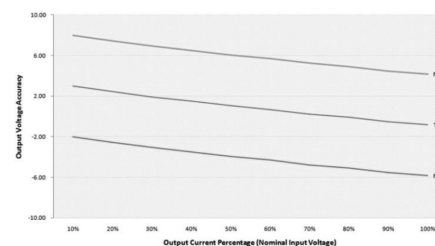
General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500V DC	1000			MΩ
Isolation Capacitance	Input-output, 100KHz/0.1V		20		pF
Switching Frequency	Full load, nominal input		250		KHz
Operating Temperature		-40		+105	°C
Storage Temperature		-55		+125	
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	3500000			Hours
Weight			2.1		g
Dimensions			19.5 × 6 × 10		mm

Electromagnetic Compatibility (EMC)

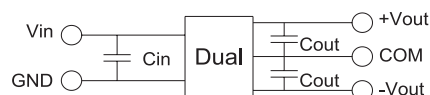
EMI	CE	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)
	RE Max.	CISPR32/EN55032 CLASS B (see Fig. 1 for recommended circuit)
EMS	ESD	IEC/EN61000-4-2 Air ±8kV, Contact ±6kV perf. Criteria B

Tolerance Envelope Graph



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Recommended Test Circuit



Vin	Cin	Dual Vout	Cout
3.3V DC	4.7 μ F/25V	$\pm$ 3.3V DC	$\pm$ 4.7 μ F/16V
5V DC	4.7 μ F/25V	$\pm$ 5V DC	$\pm$ 4.7 μ F/16V
9V DC	4.7 μ F/25V	$\pm$ 9V DC	$\pm$ 1 μ F/16V
12V DC	2.2 μ F/25V	$\pm$ 12V DC	$\pm$ 1 μ F/25V
15V DC	2.2 μ F/25V	$\pm$ 15V DC	$\pm$ 1 μ F/25V
24V DC	1 μ F/50V	$\pm$ 24V DC	$\pm$ 1 μ F/50V

EMC (CLASS B) compliance circuit

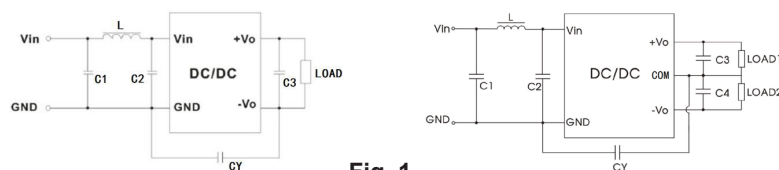
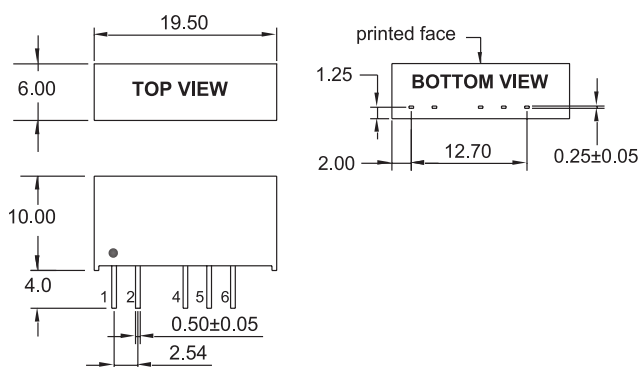


Fig. 1

EMC recommended circuit value table

EMI	C1	4.7 μ F /50V
	C2	4.7 μ F /50V
	CY	1nF/4kV
	C3	Recommended Test Circuit
	L	6.8 μ H

Markings and Dimensions



PIN Connection

PIN	1	2	4	5	6
Dual	+Vin	-Vin	-Vout	Com	+Vout

Part Number Table

Description	Part Number
DC to DC Converter, Isolated, 2W, $\pm$ 84mA, 5Vin, $\pm$ 12Vout	MP14DC-05D12NP2
DC to DC Converter, Isolated, 2W, $\pm$ 67mA, 5Vin, $\pm$ 15Vout	MP14DC-05D15NP2
DC to DC Converter, Isolated, 2W, $\pm$ 42mA, 5Vin, $\pm$ 24Vout	MP14DC-05D24NP2H3

Dimensions : Millimetres

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