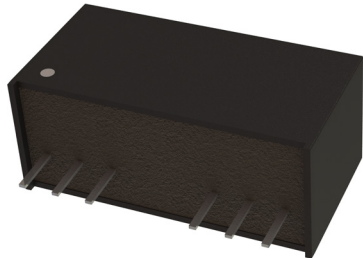


Isolated DC DC Converter **multicomp**PRO



Features

- 2:1 Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple and Noise
- Internal SMD Construction
- 1.5KVDC & 3KVDC Isolation
- Operating Temperature: -40°C to +85°C
- Industry Standard Pinout
- Continuous Short Circuit Protection with Current Foldback

**RoHS
Compliant**

Specification Table

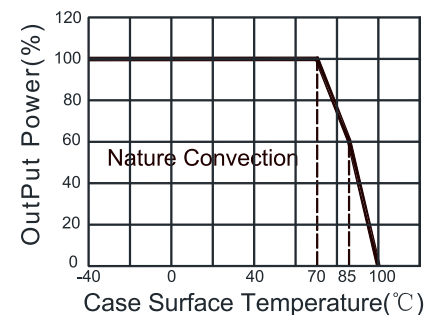
Typical @ T_A=25°C, nominal input voltage and rated output current unless otherwise specified

Part Number	Input Voltage Range	Output Voltage Range	Output Current	Efficiency	Capacitive Load(μF)
	V DC	V DC	mA	%TYP	Max.
MP27DC-24S05R6	9-36	5	1200	82	1000

Input Specifications

Parameters	Conditions	Typ	Max	Units
Voltage Tolerance	V _o , I _o Nom		4:1	
Surge Voltage (1sec max)	24 V _{in}		50	V DC
	48 V _{in}		80	
Input Current	LOAD:0%	5		mA
Start-up Time	24 V _{in}		9	V DC
	48 V _{in}		18	
Shutdown Voltage	24/48 V _{in}	6.5/14.5		
Start-up Time	Nominal input voltage & Nominal load	20		ms
CTRL	Module on	Ctrl pin open		
	Module off	Ctrl pin to 2.5 ~ 12V DC		
Filter	Capacitor			

Temperature Derating Graph



Isolated DC DC Converter **multicomp**PRO

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load		2	3	%
Line Regulation	Regulated			±1	%
Load Regulation	Regulated			±1.5	
Ripple & Noise	BW=DC To 20MHz			150	mVp-p
Transient response setting time	50% load step change		350		us
Cross Regulation	Dual outputs, Vo1 load at 50%, Vo2 load at range of 10%-100%			±5	%
Temperature Coefficient	100% Load		±0.02	±0.03	%/°C
Over-current Protection	Input voltage range	110		250	%Io
Short Circuit Protection	Input voltage range	Continuous, self-recovery			

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500V DC	1000			MΩ
Switching Frequency	Full load, nominal input		100		KHz
Operating Temperature		-40		85	°C
Humidity	Non Condensing			95	%
Cooling	Free air Convection				
Case material	DAP				
MTBF	MIL-HDBK-217F@25°C	1500000			Hours
Weight			4.5		g
Dimensions			21.8 × 9.2 × 11.1		mm

Electromagnetic Compatibility (EMC)

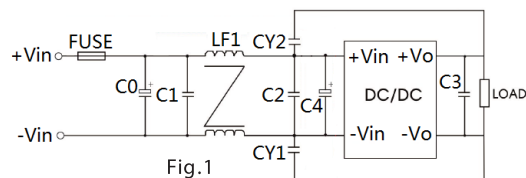
Parameters	Standards & Level	
EMI	CISPR32/EN55032 CLASS B (see Fig.1 for recommended circuit)	
EMS	CISPR32/EN55032 CLASS B	
ESD	IEC/EN61000-4-2 Contact ±4kV	perf. Criteria B
Radiated immunity	IEC/EN61000-4-3 10V/m	perf. Criteria A
Fast transient	IEC/EN61000-4-4 ±2kV	perf. Criteria B
Surge	IEC/EN61000-4-5 ±2kV	perf. Criteria B
CS	IEC/EN61000-4-6 3 Vr.m.s	perf. Criteria A

Newark.com/multicomp-pro
Farnell.com/multicomp-pro
sg.element14.com/b/multicomp-pro

multicompPRO

Isolated DC DC Converter **multicomp**PRO

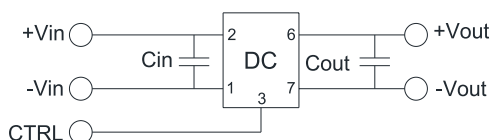
EMC Compliance Circuit



EMC recommended circuit value table

EMI	C0C4	330 μ F /100V
	C1C2	10 μ F /100V
	CY1CY2	1nF/2kV
	C3	Recommended Test Circuit
	LF1	470 μ H

Recommended Test Circuit



To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high

Vin	Cin	Single Vout	Cout	Dual Vout	Cout
24V DC	10 μ F/ 100V	3.3VV DC	100 μ F/16V	$\pm$ 5VV DC	$\pm$ 100 μ F/16V
		5VV DC	100 μ F/16V	$\pm$ 9VV DC	$\pm$ 100 μ F/16V
48V DC	10 μ F/ 100V	9VV DC	100 μ F/16V	$\pm$ 12V DC	$\pm$ 100 μ F/25V
		12VV DC	100 μ F/25V	$\pm$ 15V DC	$\pm$ 100 μ F/25V
--	--	15VV DC	100 μ F/25V	$\pm$ 24V DC	$\pm$ 100 μ F/50V
--	--	24VV DC	100 μ F/50V	--	--

Part Number Table

Description	Part Number
DC to DC Converter, Isolated, 6W, 1200mA, 24Vin, 5Vout	MP27DC-24S05R6

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.