

FEATURES:

- 2:1 Wide Input Voltages Range
- High Efficiency up to 85%
- Regulated Output Types
- Low Ripple and Noise
- Internal SMD Construction
- 1KVDC & 3KVDC Isolation
- Industry Standard Pinout
- Continuous Short-Circuit Protection With Current Foldback
- UL Recognized

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

Part Number	Input Voltage Range	Output Voltage	Output Current	Efficiency
	Vdc	Vdc	mA	%TYP
RD7-05S05R	5~9	5	400	65
RD7-12S09R	9~18	9	222	80
RD7-24S12R	18~36	12	167	80
RD7-05S05R3	5~9	5	400	65
RD7-24S05R3	18~36	5	400	75

Note:

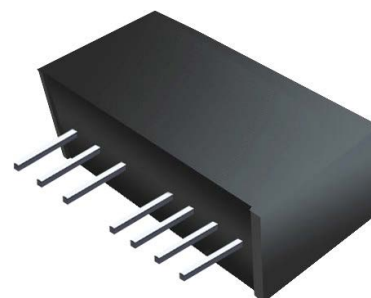
1: No suffix is standard isolation (1KVDC) e.g., RD7-12S05R

*add suffix "3" for 3KVDC isolation, e.g., RD7-12S05R3

ADAM TECH

DC-DC Converter RD7 Single Series

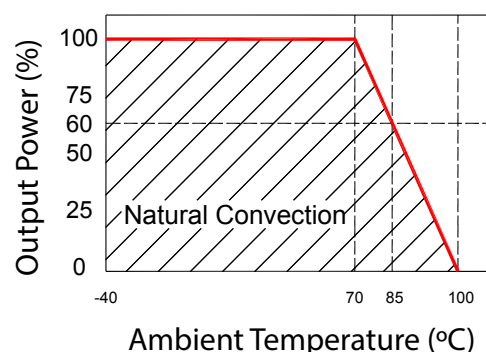
2 Watt 1KV & 3KV Isolated
2:1 Input Voltage Range
Single Output
SIP7



Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types	Vo, Io Nom			2:1	
Filter	Capacitor				

Temperature Derating Graph



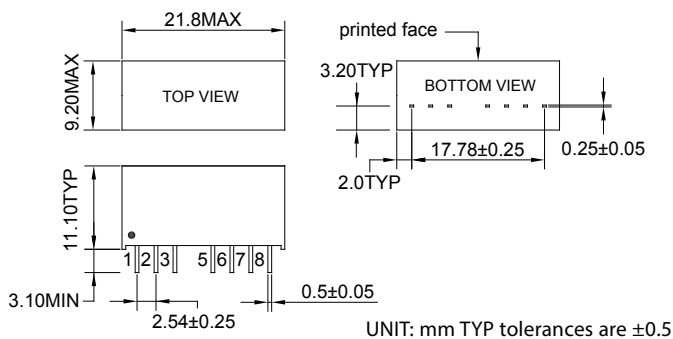
Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	100% full load			±3	%
Short Circuit Protection	Continuous				
Line Regulation	Regulated			±0.5	%
Load Regulation	Regulated			±0.8	%
Ripple & Noise	Output:5-9V TYPES BW=DC To 20MHz			100	mVp-p
	Output:12-24V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient Response Setting Time	50% load step change		350		us

General Specifications

Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	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	1,500,000			Hours
Weight			4.5		g
Dimensions			21.8x9.2x11.1		mm

Markings and Dimensions



PIN Connection

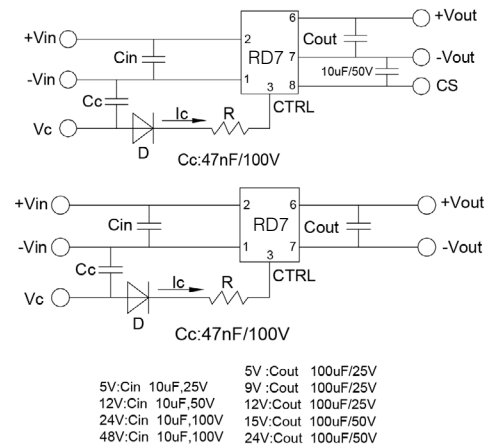
PIN	1	2	3	5	6	7	8
1KV	-Vin	+Vin	Ctrl-Control input can (can be left open)	NE-No external connection allowed	+Vout	-Vout	CS Optional External capacitor
3KV	-Vin	+Vin	Ctrl-Control input can (can be left open)	No Pin	+Vout	-Vout	NC

Part Number

RD7 - XX X XX X X
A B C D E F

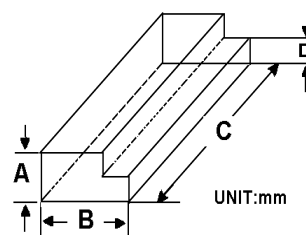
A: Series
B: Input Voltage
C: Single Output (S)
D: Output Voltage
E: Regulated (R)
F: Isolation Voltage

Recommended Test Circuit



1. When open or high impedance, the converter works well; when this pin is 'high', the converter shuts down. It should be noted that the input current should be between 5-10mA, exceeding the maximum 20mA will cause permanent damage to the converter.
2. To make sure the product works at perfect operation status, a full loading external capacitor is necessary and it is recommended to use a high frequency low resistance electrolytic capacitor.

Packaging



Size (mm)			
A	B	C	D
12.0	28.55	550	6.00

Mouser Electronics

Authorized Distributor

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[RD7-24S12R](#)