

## FEATURES:

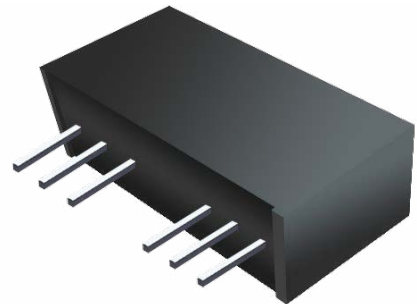
- 2:1 Wide Input Voltages Range
- High Efficiency up to 80%
- Regulated Output Types
- Low Ripple and Noise
- Internal SMD Construction
- 1.5KVDC ~ 3KVDC Isolation
- Industry Standard Pinout
- Continuous Short-Circuit Protection With Current Foldback



## DC-DC Converter RD7-3W Single Series 3 Watt 1.5KV ~ 3KV Isolated 2:1 Input Voltage Range Single Output SIP8

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
RD7-12S033R	9~18	3.3	909	70
RD7-12S123R	9~18	12	250	78
RD7-24S033R	18~36	3.3	700	68
RD7-24S053R	18~36	5	600	70
RD7-24S123R	18~36	12	250	78
RD7-24S153R	18~36	15	200	80
RD7-12S053R3	9~18	5	600	70
RD7-24S053R3	18~36	5	600	70
RD7-48S053R3	36~72	5	600	70



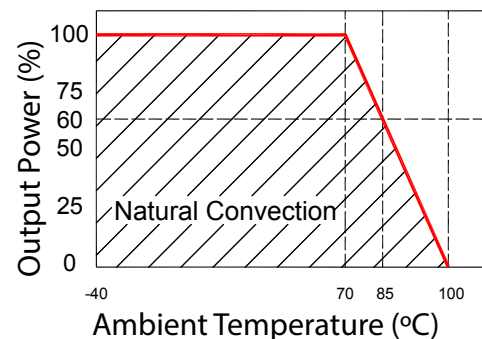
### Note:

1: No suffix is standard isolation (1.5KVDC) e.g., RD7-12S053R  
\*add suffix "3" for 3KVDC isolation, e.g., RD7-12S053R3

### Input Specifications

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

### Temperature Derating Graph



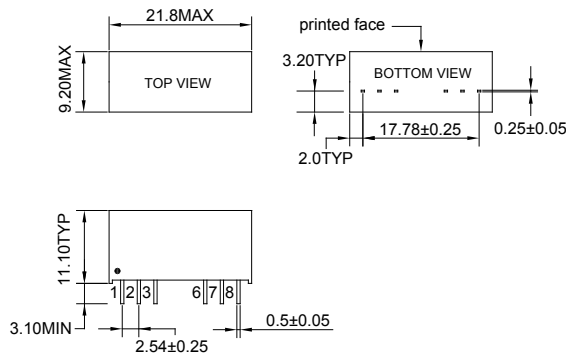
## Output Specifications

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:3.3V-9V TYPES BW=DC To 20MHz			100	mVp-p
	Output:12-15V 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



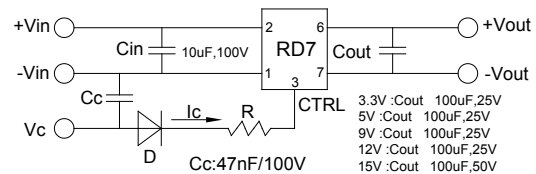
UNIT: mm TYP tolerances are ±0.5

## Part Number

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

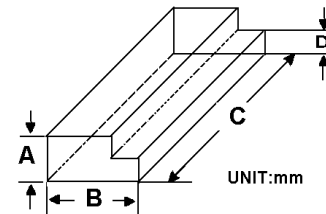
A: Series  
B: Input Voltage  
C: Single Output (S)  
D: Output Voltage  
E: Output Power  
F: Regulated (R)  
G: Isolation Voltage

## Recommended Test Circuit



- 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.
- 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

## PIN Connection

PIN	1	2	3	6	7	8
Dual	-Vin	+Vin	Ctrl-Control input can (can be left open)	+Vout	-Vout	NC