

# RDD05 SERIES

# DC-DC CONVERTER 5 ~ 6W



RDD05 - 03 S 1

WATTAGE

03 : 3.3V OUT  
05 : 5V OUT  
12 : 12V OUT  
15 : 15V OUT

1: 9~18V IN  
2: 18~36V IN  
3: 35~75V IN

S : SINGLE OUTPUT  
D : DUAL OUTPUT

## MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (MIN.)	CASE
<b>Single Output Models</b>						
RDD05 - 03S1	9~18 VDC	5 WATTS	+3.3 VDC	1500 mA	74%	FC
RDD05 - 05S1	9~18 VDC	5 WATTS	+ 5 VDC	1000 mA	77%	FC
RDD05 - 12S1	9~18 VDC	6 WATTS	+ 12 VDC	500 mA	81%	FC
RDD05 - 15S1	9~18 VDC	6 WATTS	+ 15 VDC	400 mA	82%	FC
RDD05 - 03S2	18~36 VDC	5 WATTS	+3.3 VDC	1500 mA	77%	FC
RDD05 - 05S2	18~36 VDC	5 WATTS	+ 5 VDC	1000 mA	80%	FC
RDD05 - 12S2	18~36 VDC	6 WATTS	+ 12 VDC	500 mA	84%	FC
RDD05 - 15S2	18~36 VDC	6 WATTS	+ 15 VDC	400 mA	85%	FC
RDD05 - 03S3	35~75 VDC	5 WATTS	+3.3 VDC	1500 mA	78%	FC
RDD05 - 05S3	35~75 VDC	5 WATTS	+ 5 VDC	1000 mA	81%	FC
RDD05 - 12S3	35~75 VDC	6 WATTS	+ 12 VDC	500 mA	85%	FC
RDD05 - 15S3	35~75 VDC	6 WATTS	+ 15 VDC	400 mA	86%	FC
<b>Dual Output Models</b>						
RDD05 - 05D1	9~18 VDC	5 WATTS	± 5 VDC	± 500 mA	76%	FC
RDD05 - 12D1	9~18 VDC	6 WATTS	± 12 VDC	± 250 mA	80%	FC
RDD05 - 15D1	9~18 VDC	6 WATTS	± 15 VDC	± 200 mA	81%	FC
RDD05 - 05D2	18~36 VDC	5 WATTS	± 5 VDC	± 500 mA	78%	FC
RDD05 - 12D2	18~36 VDC	6 WATTS	± 12 VDC	± 250 mA	83%	FC
RDD05 - 15D2	18~36 VDC	6 WATTS	± 15 VDC	± 200 mA	84%	FC
RDD05 - 05D3	35~75 VDC	5 WATTS	± 5 VDC	± 500 mA	79%	FC
RDD05 - 12D3	35~75 VDC	6 WATTS	± 12 VDC	± 250 mA	84%	FC
RDD05 - 15D3	35~75 VDC	6 WATTS	± 15 VDC	± 200 mA	85%	FC



### FEATURES

- \* LOW COST
- \* 2:1 WIDE INPUT RANGE
- \* I/O ISOLATION
- \* INPUT Pi FILTER
- \* SHORT CIRCUIT PROTECTION
- \* HIGH PERFORMANCE

### DESCRIPTION

THE RDD05 SERIES ARE 5/6 WATTS SINGLE & DUAL OUTPUT DC/DC CONVERTER. 2:1 WIDE INPUT RANGE, I/O ISOLATION, GOOD EFFICIENCY WITH EXCELLENT LINE/LOAD REGULATION WITH SHORT CIRCUIT PROTECT FEATURES. IT MAKES RDD05 SUITABLE TO POWER COMMERCIAL & INDUSTRIAL TYPES OF ELECTRONIC CIRCUITS AT VERY LOW COST. ALL RDD05 MODELS ARE PACKAGED IN  $1.25 \times 0.8 \times 0.5$ " NON-CONDUCTIVE BLACK PLASTIC CASE. CONFIGURATION AND PCB MOUNTABLE DIRECTLY.



## SPECIFICATION

All Specifications Typical At Nominal Line, Full Load, 25°C Unless Otherwise Noticed

### GENERAL SPECIFICATION

- \* Switching frequency: ..... >150KHz
- \* Isolation voltage: ..... 1,500VDC
- \* Isolation resistance: ..... >1G Ω(min.)
- \* Operating ambient temperature: ..... -25 to +71°C
- \* Storage temperature: ..... -40 to +100°C
- \* Max. Case temperature: ..... 90°C
- \* Cooling: ..... Free air convection
- \* Transient recovery time: ..... 500μS, 25% load step change
- \* Temperature coefficient: ..... ±0.02% / °C
- \* Dimension: ..... 31.8 x 20.3 x 12.7mm

### INPUT SPECIFICATIONS

- \* Input voltage range / frequency: ..... 9 ~ 18VDC for 12V  
18 ~ 36VDC for 24V  
35 ~ 75VDC for 48V
- \* Input filter: ..... Pi type

### OUTPUT SPECIFICATIONS

- \* Output voltage accuracy: ..... ±2% at Vo\_nom
- \* Minimum load: ..... No load for single output models  
±20% for dual output models
- \* Line regulation: ..... ±1% at Vo\_nom
- \* Load regulation: ..... ±2% (NL ~ FL) at Vo\_nom for single output models  
±3% (20% ~ FL) at Vo\_nom for dual output models
- \* Ripple & noise: ..... 20MHZ BW, 100 mV p-p (max.)
- \* Efficiency: ..... Up to 86%, see model list
- \* Derating: ..... See table 1
- \* Case material: ..... Plastic

### CONTROL AND PROTECTION

- \* Output short circuit: ..... Continuous

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