

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
Single Output Models						
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
Dual Output Models						
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: 500 μ S, 25% load step change
- * Temperature coefficient: $\pm 0.02\%$ / °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: $\pm 2\%$ at Vo_nom
- * Minimum load: No load for single output models
 $\pm 20\%$ for dual output models
- * Line regulation: $\pm 1\%$ at Vo_nom
- * Load regulation: $\pm 2\%$ (NL ~ FL) at Vo_nom for single output models
 $\pm 3\%$ (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