

WDD15 SERIES

DC-DC CONVERTER 12 ~ 15W



WDD15 - 03 S 4

WATTAGE

03 : 3.3V OUT

05 : 5V OUT

12 : 12V OUT

15 : 15V OUT

4: 10~36V IN

5: 18~72V IN

S : SINGLE OUTPUT

D : DUAL OUTPUT

MODEL LIST

MODEL NO.	INPUT VOLTAGE	OUTPUT WATTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFF. (TYP.)	EFF. (MIN.)	CASE
Single Output Models							
WDD15 - 03S4	10~36 VDC	12 WATTS	+3.3 VDC	3600 mA	80%	77%	FF
WDD15 - 05S4	10~36 VDC	15 WATTS	+ 5 VDC	3000 mA	81%	79%	FF
WDD15 - 12S4	10~36 VDC	15 WATTS	+ 12 VDC	1250 mA	83%	81%	FF
WDD15 - 15S4	10~36 VDC	15 WATTS	+ 15 VDC	1000 mA	83%	81%	FF
WDD15 - 03S5	18~72 VDC	12 WATTS	+3.3 VDC	3600 mA	80%	77%	FF
WDD15 - 05S5	18~72 VDC	15 WATTS	+ 5 VDC	3000 mA	81%	79%	FF
WDD15 - 12S5	18~72 VDC	15 WATTS	+ 12 VDC	1250 mA	84%	82%	FF
WDD15 - 15S5	18~72 VDC	15 WATTS	+ 15 VDC	1000 mA	82%	80%	FF
Dual Output Models							
WDD15 - 12D4	10~36 VDC	15 WATTS	± 12 VDC	± 630 mA	82%	80%	FF
WDD15 - 15D4	10~36 VDC	15 WATTS	± 15 VDC	± 500 mA	81%	79%	FF
WDD15 - 12D5	18~72 VDC	15 WATTS	± 12 VDC	± 630 mA	82%	80%	FF
WDD15 - 15D5	18~72 VDC	15 WATTS	± 15 VDC	± 500 mA	81%	79%	FF

FEATURES

- * LOW COST
- * 4:1 WIDE INPUT RANGE
- * I/O ISOLATION
- * INPUT Pi FILTER
- * SHORT CIRCUIT PROTECTION
- * HIGH PERFORMANCE
- * 2 YEARS WARRANTY

DESCRIPTION

THE WDD15 SERIES ARE 12 WATTS AND 15 WATTS SINGLE & DUAL OUTPUT DC/DC CONVERTERS, 4:1 WIDE INPUT RANGE WITH I/O ISOLATION AND SHORT CIRCUIT PROTECTION FEATURES MAKES IT SUITABLE USED ON VARIABLE APPLICATIONS WITH LOW COST. ALL WDD15 MODELS CONTAIN PI INPUT FILTER TO MINIMIZE REFLECTED RIPPLE & NOISE. ALL MODELS ARE PACKAGED IN 2" x 1.6" x 0.4" BLACK COATED METAL CASE, AND PCB MOUNTABLE DIRECTLY.



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SPECIFICATION

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

GENERAL SPECIFICATION

- * Switching frequency: 230KHz
- * Isolation voltage: 1,500VDC
- * Isolation resistance: 100M Ω (min.)
- * Operating ambient temperature: -25 to +71°C
- * Storage temperature: -40 to +100°C
- * Max. Case temperature: 100°C
- * M.T.B.F.: 277,400Hrs at @ GF40, according to MIL-HDBK-217F
- * Cooling: Free air convection
- * Temperature coefficient: $\pm 0.02\%$ / °C
- * Dimension: 50.8 x 40.6 x 10.2mm

INPUT SPECIFICATIONS

- * Input voltage range / frequency: 10 ~ 36VDC for 24V
18 ~ 72VDC for 48V
- * Input filter: Pi type
- * No load input current: 15mA for 24V in
10mA for 48V in
- * Max. Input voltage: 40VDC for 24V in
75VDC for 48V in
- * Startup voltage: 9.5VDC for 24V in
33VDC for 48V in

OUTPUT SPECIFICATIONS

- * Output voltage accuracy: $\pm 2\%$ at V_{o_nom}
- * Minimum load: No load for single output models
 $\pm 10\%$ at V_{o_nom} for dual output models
- * Line regulation: $\pm 1\%$ at V_{o_nom}
- * Load regulation: $\pm 2\%$ at V_{o_nom} for single output models
 $\pm 5\%$ at V_{o_nom} for dual output models
- * Efficiency: Up to 84%, see model list
- * Voltage trim range: $V_{out} \times 10\%$
- * Derating: See table 1
- * Case material: Metal

CONTROL AND PROTECTION

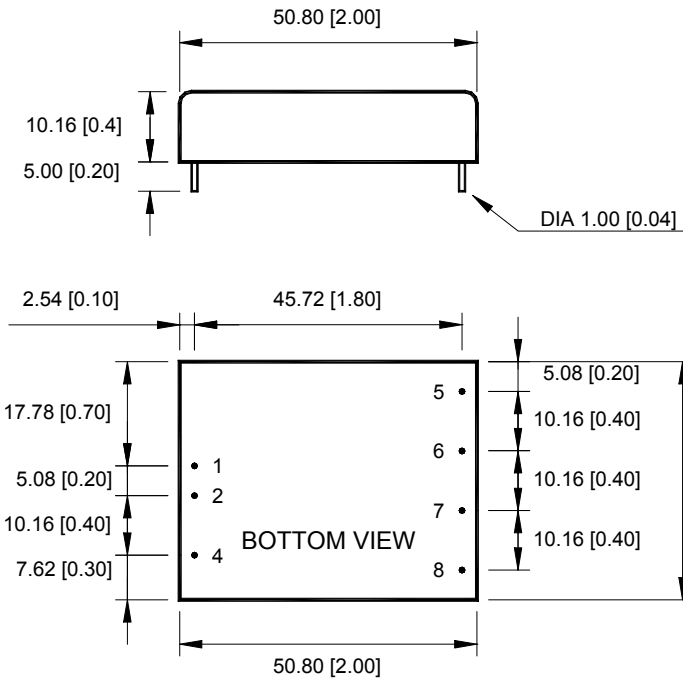
- * Remote on/off: ON : open or 8 ~ 10VDC
OFF : -0.3 ~ 2VDC
- * Input reversed: Shunt diode use external fuse
- * Output short circuit: Continuous

WDD15 SERIES

DC-DC CONVERTER 12 ~ 15W

MECHANISM & PIN CONFIGURATION

mm [inch]



PHYSICAL CHARACTERISTICS

CASE SIZE	50.7 x 40.6 x 10.2mm 2 x 1.6 x 0.4inches
CASE MATERIAL	Metal
WEIGHT	60 g

PIN ASSIGMENT

PIN NO.	1	2	4	5	6	7	8
SINGLE	Vi+	Vi-	S.D.	NO PIN	Vo+	Vo-	Trim
DUAL	Vi+	Vi-	S.D.	Vo+	com	Vo-	Trim

S.D. : REMOTE ON/OFF

Derating:

[TABLE 1]

