

## 2D16WA 1.5RP Series

2W - Dual/Single Output - Wide Input - Isolated & Regulated DC-DC Converter



# **DC-DC Converter**

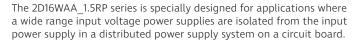
2 Watt



2:1 wide input voltage range

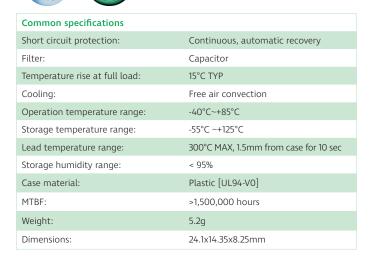
Operating temperature: -40°C to +85°C

- 1500VDC isolation
- No heat sink required
- No external component required
- Industry standard pinout
- ← Internal SMD construction
- Short circuit protection (SCP; automatic recovery)
- **RoHS Compliance**



These products apply to:

- 1) Where the voltage of the input power supply is wide range (voltage range ≤2:1)
- Where isolation is necessary between input and output (isolation voltage ≤1500VDC)
- Where the regulation of the output voltage and the output ripple noise are demanded.



2D16WA 1205S1.5RP

2= 2Watt; D16= DIP16; W= Wide Input 2:1; A= Pinning; 12 VDC nominal= 9-18Vin; 5Vout; S= Single Output; 1.5= 1500VDC Isolation; R= Regulated Output; P= Short Circuit Protection

condition	Min	Тур	Max ±2	Units %
lated			±2	0/2
lated				/0
	Regulated			
on Regulated				
to recommended t			±0.03	%/°C
oad step change		350		μς
łz Bandwidth			100	mVp-p
oad, nominal		100		KHz
	oad step change  Iz Bandwidth  oad, nominal	oad step change iz Bandwidth vad, nominal	oad step change 350 Iz Bandwidth ead, nominal 100	oad step change 350  Iz Bandwidth 100  Pad, nominal 100

Isolation specifications							
Item	Test condition	Min Typ Max		Units			
Isolation voltage	Tested for 1 minute and 1mA max	1500	1500		VDC		
Isolation resistance	Test at 500VDC	1000			ΜΩ		

#### Note:

- 1. The load shouldn't be less than 10%, otherwise ripple will increase dramatically.
- 2. Operation under 10% load will not damage the converter; However, they may not meet all specification listed.
- 3. All specifications measured at Ta=25°C, humidity <75%, nominal input voltage and rated output load unless otherwise specified.
- 4. In this datasheet, all the test methods of indications are based on corporate standards.
- 5. Only typical models listed, other models may be different, please contact our technical person for more details.

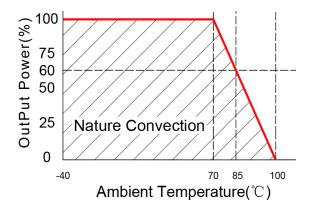
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Part Number	Input Volt Nominal	ta <b>ge [VDC]</b> Range	Output Voltage [VDC]	Current [mA, max.]	Efficiency [%, Typ.]
2D16WA_0503S1.5RP	5	4.5-9	3.3	500	70
2D16WA_0505S1.5RP	5	4.5-9	5	400	70
2D16WA_0512S1.5RP	5	4.5-9	12	167	75
2D16WA_0515S1.5RP	5	4.5-9	15	133	78
2D16WA_0524S1.5RP	5	4.5-9	24	84	80
2D16WA_1203S1.5RP	12	9-18	3.3	500	70
2D16WA_1205S1.5RP	12	9-18	5	400	75
2D16WA_1212S1.5RP	12	9-18	12	167	80
2D16WA_1215S1.5RP	12	9-18	15	133	80
2D16WA_1224S1.5RP	12	9-18	24	84	83
2D16WA_2403S1.5RP	24	18-36	3.3	500	70
2D16WA_2405S1.5RP	24	18-36	5	400	76
2D16WA_2412S1.5RP	24	18-36	12	167	80
2D16WA_2415S1.5RP	24	18-36	15	133	80
2D16WA_2424S1.5RP	24	18-36	24	84	83
2D16WA_0505D1.5RP	5	4.5-9	±5	±200	70
2D16WA_0512D1.5RP	5	4.5-9	±12	±83	75
2D16WA_0515D1.5RP	5	4.5-9	±15	±67	78
2D16WA_0524D1.5RP	5	4.5-9	±24	±42	80
2D16WA_1205D1.5RP	12	9-18	±5	±200	75
2D16WA_1212D1.5RP	12	9-18	±12	±83	80
2D16WA_1215D1.5RP	12	9-18	±15	±67	80
2D16WA_1224D1.5RP	12	9-18	±24	±42	83
2D16WA_2405D1.5RP	24	18-36	±5	±200	76
2D16WA_2412D1.5RP	24	18-36	±12	±83	80
2D16WA_2415D1.5RP	24	18-36	±15	±67	80
2D16WA_2424D1.5RP	24	18-36	±24	±42	83

<sup>\*</sup>Input voltage can't exceed this value, or will cause permanent damage.

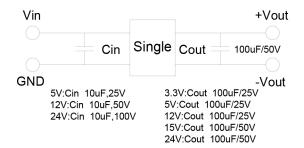
# Typical characteristics

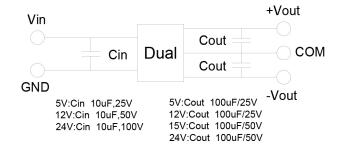


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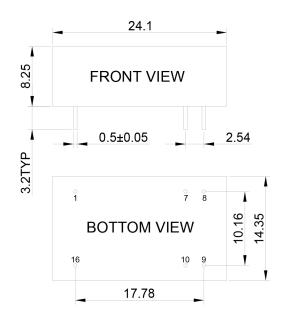
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# Recommended test circuit





# **Mechanical dimensions**



### PIN connection

PIN	1	7	8	9	10	16
Single	-Vin	NC	NC	+Vout	-Vout	+Vin
Dual	-Vin	NC	СОМ	+Vout	-Vout	+Vin

Note:

Unit: mm[inch]

General tolerances: ±0.25mm [±0.010inch]