

3DA1W_1.5 series

3W - Single/Dual Output DC-DC Converter - Isolated

DC-DC Converter

3 Watt

- ⊕ 2:1 Wide input voltage
- ⊕ 3 Watt 24-Pin DIL package
- ⊕ Efficiency to 80%
- ⊕ 1500VDC isolation

- ⊕ MTBF: >1,500,000 hrs
- ⊕ Operating temperature: -40°C to +85°C

Introducing our 3-watt converter 3DA1W_1.5 series with a 2:1 wide input voltage range in a 24-pin DIL package. Achieving efficiency up to 80%, it offers 1500VDC isolation and an impressive MTBF of over 1,500,000 hours.

With an operating temperature range from -40°C to +85°C, this converter ensures exceptional performance and reliability.



Common specifications	
Short circuit protection	Continuous
Operation temperature	-40°C ~+85°C
Humidity	95 %RH (Non Condensing)
MTBF: (MIL-HDBK-217F@25°C)	> 1,500,000 hrs
Case material	Nickel Coated Copper With Non-Conductive Base
Switching frequency	200 KHz
Dimensions	31.60 x 20.10 x 11.0 mm
Weight	16.2 g
Cooling	Free air Convection

Input specifications					
Item	Test condition	Min	Typ	Max	Units
Voltage types				2:1	
Input filter	Capacitor				

Output specifications						
Item	Test condition	Min	Typ	Max	Units	
Voltage tolerance				±2	%	
Line regulation				±0.5	%	
Load regulation	• Single • Dual			±0.5 ±2.0	%	
Ripple & noise*	BW=DC To 20MHz			100	mVp-p	
Transient response setting time	50% load step change		350		us	

Isolation specifications						
Item	Test condition	Min	Typ	Max	Units	
Isolation resistance	500VDC	1000			MΩ	

Example:

3DA1W_1205D1.5

3 = 3Watt; D = DIP; A1 = Series; W = Wide input; 12 = 12Vin; 05 = 5Vout; D = Dual Output; 1.5 = 1500VDC isolation

Product Selection Guide - Single output

Approval	Model	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%) Typ.
	3DA1W_0505S1.5	4.5-9	5	600	75
	3DA1W_0512S1.5	4.5-9	12	250	77
	3DA1W_0515S1.5	4.5-9	15	200	80
	3DA1W_1205S1.5	9-18	5	600	75
	3DA1W_1212S1.5	9-18	12	250	80
	3DA1W_1215S1.5	9-18	15	200	80
	3DA1W_2405S1.5	18-36	5	600	78
	3DA1W_2412S1.5	18-36	12	250	80
	3DA1W_2415S1.5	18-36	15	200	80
	3DA1W_4805S1.5	36-72	5	600	78
	3DA1W_4812S1.5	36-72	12	250	80
	3DA1W_4815S1.5	36-72	15	200	80

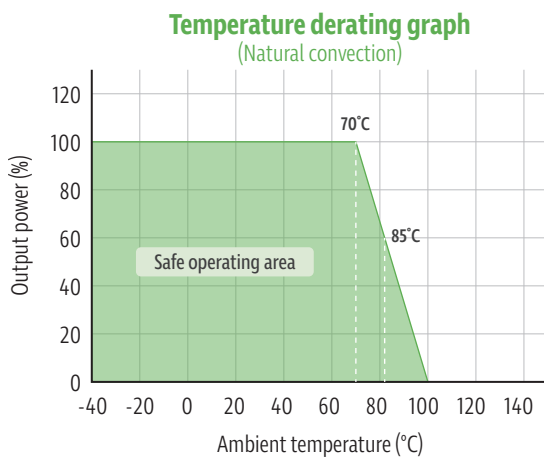
3DA1W_1.5 series

3W - Single/Dual Output DC-DC Converter - Isolated

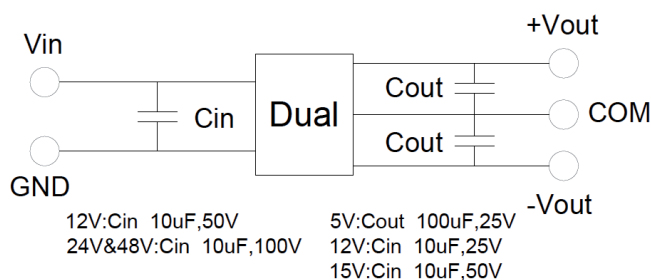
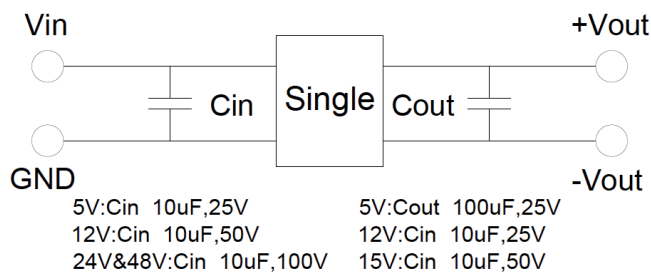
Product Selection Guide - Dual output

Approval	Model	Input Voltage (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%) Typ.
	3DA1W_1205D1.5	9-18	±5	±300	75
	3DA1W_1212D1.5	9-18	±12	±125	75
	3DA1W_1215D1.5	9-18	±15	±100	75
	3DA1W_2405D1.5	18-36	±5	±300	75
	3DA1W_2412D1.5	18-36	±12	±125	80
	3DA1W_2415D1.5	18-36	±15	±100	80
	3DA1W_4805D1.5	36-72	±5	±300	75
	3DA1W_4812D1.5	36-72	±12	±125	80
	3DA1W_4815D1.5	36-72	±15	±100	80

Typical characteristics



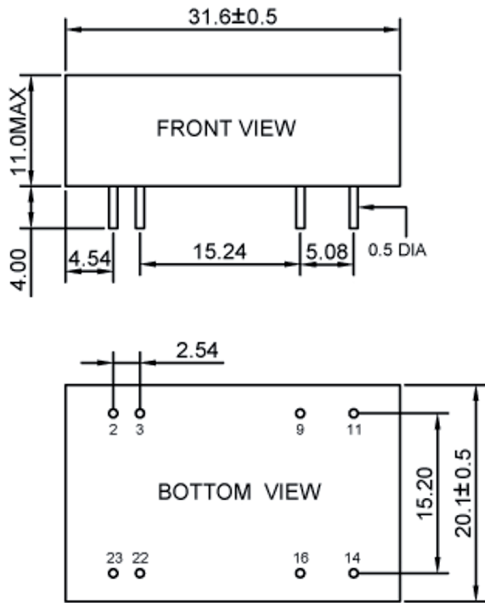
Recommended Test Circuit



3DA1W_1.5 series

3W - Single/Dual Output DC-DC Converter - Isolated

Mechanical dimensions



Pin	2/3	9	11	14	16	22/23
Single	-Vin	No Pin	NC	+Vout	-Vout	+Vin
Dual	-Vin	Com	-Vout	+Vout	Com	+Vin

UNIT: mm

Unless otherwise specified, all tolerances are ± 0.25