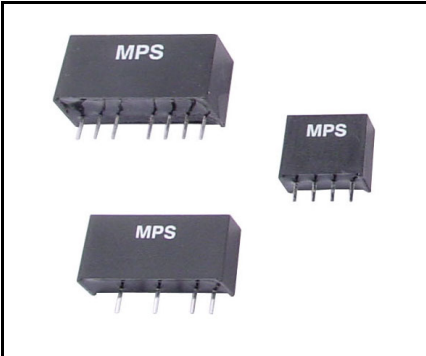


ADC300 SERIES

2W, Miniature SIP, Single & Dual Output DC/DC Converters



Key Features

- Efficiency up to 83%
- 1000VDC Isolation
- MTBF > 2,000,000 Hours
- Low Cost
- Input 5, 12 and 24VDC
- Output 3.3, 5, 12, 15, ± 5 , ± 12 and ± 15 VDC
- Temperature Performance -40°C to +85°C
- UL 94V-0 Package Material
- Internal SMD Construction
- Industry Standard Pinout

Selection Guide

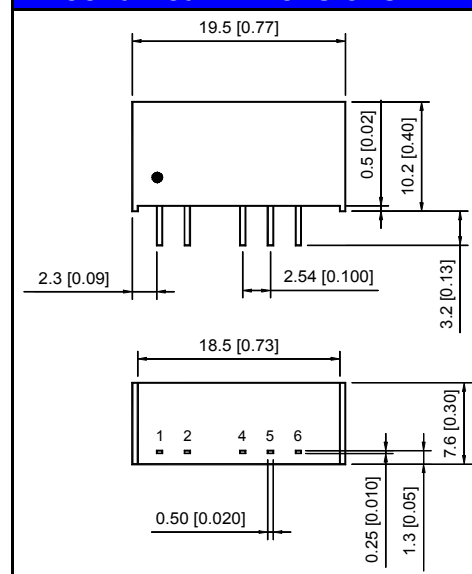
Model Number	Input Voltage	Output Voltage	Output Current	Efficiency	Load Regulation
	VDC	VDC	mA	% Typ.	% Max.
ADC301	5 (4.5 – 5.5)	3.3	500	73	11
ADC302		5	400	76	11
ADC303		12	165	80	7
ADC304		15	133	80	7
ADC305		± 5	± 200	77	10
ADC306		± 12	± 83	79	7
ADC307		± 15	± 66	79	7
ADC311	12 (10.8 – 13.2)	3.3	500	74	8
ADC312		5	400	78	8
ADC313		12	165	82	5
ADC314		15	133	83	5
ADC315		± 5	± 200	79	8
ADC316		± 12	± 83	82	5
ADC317		± 15	± 66	82	5
ADC321	24 (21.6 – 26.4)	3.3	500	74	8
ADC322		5	400	77	8
ADC323		12	165	81	5
ADC324		15	133	82	5
ADC325		± 5	± 200	79	8
ADC326		± 12	± 83	81	5
ADC327		± 15	± 66	82	5

MPS Industries ADC300 DC/DC's are specially designed to provide higher power to 2W in a miniature SIP package.

The series consists of 21 models with input voltages of 5V, 12V and 24VDC which offers standard output voltages of 3.3V, 5V, 12V, 15V, ± 5 V, ± 12 V and ± 15 VDC for a wide choice.

The ADC300 series is an excellent selection for a variety of applications including distributed power systems, mixed analog/digital subsystems, portable test equipments, local power networks and battery backed systems.

Mechanical Dimensions



Pin Connections

Pin	Singles	Duals
1	+Vin	+Vin
2	-Vin	-Vin
4	-Vout	-Vout
5	No Pin	Common
6	+Vout	+Vout

Case Size –
19.5x7.6x10.2mm (0.77x0.30x0.40inch)

Case Material –
Non-Conductive Black Plastic

Weight –
2.7g (0.10Oz)

Tolerance	Millimeters	Inches
	X.X $\pm$ 0.25	X.XX $\pm$ 0.01
	X.XX $\pm$ 0.13	X.XXX $\pm$ 0.005
Pin	$\pm$ 0.05	$\pm$ 0.002

ADC300 SERIES

2W, Miniature SIP, Single & Dual Output DC/DC Converters



Absolute Maximum Ratings

Parameter		Min.	Max.	Units
Input Surge Voltage (1000mS)	5VDC Input Models	-0.7	9	VDC
	12VDC Input Models	-0.7	18	VDC
	24VDC Input Models	-0.7	30	VDC
Lead Temperature (1.5mm from case for 10sec.)		---	260	°C
Internal Power Dissipation		---	650	mW

Exceeding the unit absolute maximum ratings could cause damage.
These are not continuous operating ratings.

General Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	60 Seconds	1000	---	---	VDC
Isolation Resistance	500VDC	1000	---	---	MΩ
Isolation Capacitance	100kHz, 1V	---	80	120	pF
Switching Frequency		50	80	100	kHz
MTBF	MIL-HDBK-217F @25°C Ground Benign	2	---	---	MHrs

Environmental Characteristics

Parameter	Conditions	Min.	Max.	Units
Operating Temperature	Ambient	-40	85	°C
Operating Temperature	Case	-40	90	°C
Storage Temperature		-40	125	°C
Humidity		---	95	%
Cooling	Free-Air Convection			

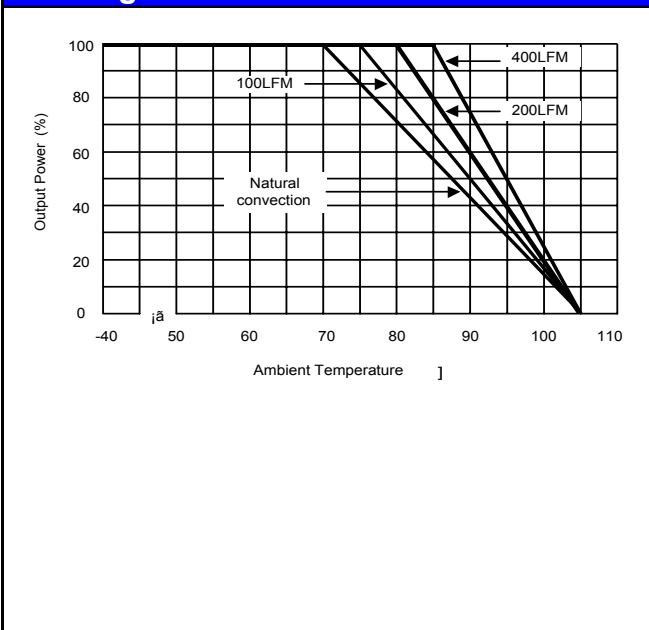
Output Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Units
Line Regulation	For Vin Change of 1%	---	±1.2	±1.5	%
Load Regulation	Io = 20% to 100%	See Selection Guide			%
Ripple & Noise	20MHz BW	---	100	150	mV P-P
Short Circuit	0.5 Second Max.				

Maximum Capacitive Load

Models by Output Voltage (Each Output on Duals)	Singles	Duals	Units
	470	390	uF

Derating Curve



Notes:

1. Specifications typical at Ta=+25°C, resistive load, nominal input voltage, rated output current unless otherwise noted.
2. These power converters require a minimum output load to maintain specified regulation.
3. Operation under no-load conditions will not damage these modules; however, they may not meet all specifications listed.
4. All DC/DC converters should be externally fused at the front end for protection.
5. Other input and output voltage may be available, please contact factory.
6. All specifications subject to change without notice.
7. For detailed data sheet, please contact us.