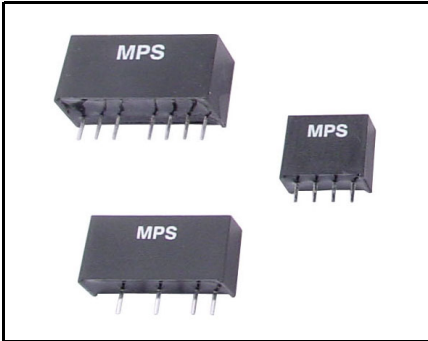


# SD01XXXXR SERIES

1W, Wide Input Range SIP, Single Output DC/DC Converters



## Key Features

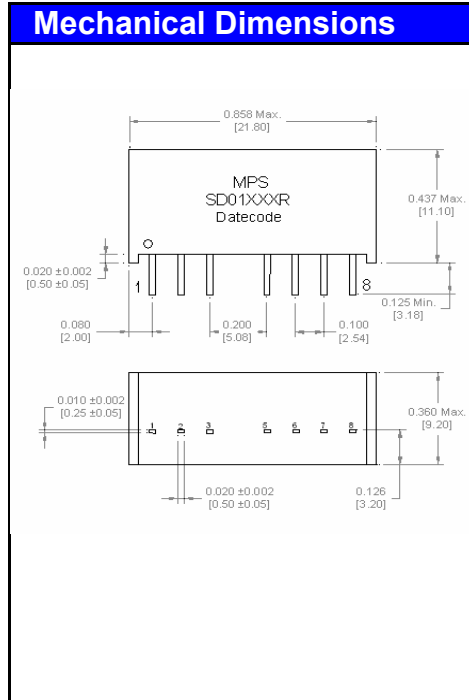
- 2:1 Wide Input Voltage Range
- Efficiency up to 80%
- 1000VDC Isolation
- MTBF > 1,000,000 Hours
- Output 5, 9, 12, and 15VDC
- Temperature Performance -40°C to +85°C
- UL 94V-0 Package Material
- Low Ripple and Noise
- Internal SMD Construction
- Industry Standard Pin-out
- Continuous Short Ckt Protection

Selection Guide					
Model Number	Input Voltage	Output Voltage	Output Current	Efficiency	Load Regulation
	VDC	VDC	mA	% Typ.	% Max.
SD01A05R	5 (5.0 - 9.0)	5	200	63	0.8
SD01A09R		9	111	68	0.8
SD01A12R		12	167	69	0.8
SD01A15R		15	83	71	0.8
SD01C05R	12 (9.0 - 18.0)	5	200	71	0.8
SD01C09R		9	111	76	0.8
SD01C12R		12	167	78	0.8
SD01C15R		15	83	79	0.8
SD01D05R	24 (18.0 - 36.0)	5	200	71	0.8
SD01D09R		9	111	78	0.8
SD01D12R		12	167	79	0.8
SD01D15R		15	83	81	0.8
SD01J05R	48 (36.0 - 72.0)	5	200	70	0.8
SD01J09R		9	111	77	0.8
SD01J12R		12	167	79	0.8
SD01J15R		15	83	80	0.8

MPS Industries SD01XXXXR 1W DC/DC's are specially designed to provide ultra-high levels of isolation 1000VDC in a miniature SIP package.

The series consists of 16 models with input voltages ranges of 5-9VDC, 9-18VDC, 18-36VDC and 36-75VDC which offers standard output voltages of 5V, 9V, 12V, 15VDC in single output configurations.

The SD01XXXXR series is an excellent selection for a variety of applications including data communication equipments, mobile battery driven equipments, distributed power systems, mixed analog/digital subsystems, process/machine control equipments, computer peripheral systems and industrial robot systems.



### Pin Connections

Pin	Single Output
1	-Vin
2	+Vin
3	Remote on/Off
5	No Connection
6	+Vout
7	-Vout
8	CS Optional External Capacitor

**Case Size –**  
21.8x9.2x11.1mm (0.86x0.36x0.44inch)

**Case Material –**  
Non-Conductive Black Plastic

**Weight –**  
4.8g (0.17Oz)

Tolerance	Millimeters	Inches
	X.X±0.25	X.XX±0.01
	X.XX±0.13	X.XXX±0.005
Pin	±0.05	±0.002

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## Absolute Maximum Ratings

Parameter	Min.	Max.	Units
Lead Temperature (1.5mm from case for 10sec.)	---	260	°C

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	10	---	---	GΩ
Isolation Capacitance	100kHz, 1V	---	---	---	pF
Switching Frequency		50	---	---	kHz
MTBF	MIL-HDBK-217F @25°C Ground Benign	1	---	---	MHrs

## Environmental Characteristics

Parameter	Conditions	Min.	Max.	Units
Operating Temperature	Ambient	-40	85	°C
Operating Temperature	Case	-25	90	°C
Storage Temperature		-50	130	°C
Humidity		---	95	%
Cooling	Free-Air Convection			

## Output Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Units
Line Regulation	For Vin Change of 1%	---	---	0.5	%
Load Regulation	Io = 20% to 100%	---	---	0.8	%
Ripple & Noise	20MHz BW (5-9V)	---	---	100	mV P-P
Ripple & Noise	20MHz BW (12-15V)	---	---	150	mV P-P

## 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 visit our website.