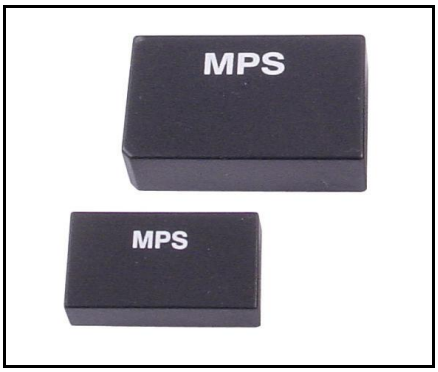
SRDC200R SERIES

2W, Low Cost DIP, Single & Dual Output DC/DC Converters



Key Features

- Low Cost
- 500VDC Isolation
- MTBF > 800,000 Hours
- 40mV P-P Ripple and Noise
- Input 5, 12, 24 and 48VDC
- Output 5, 12, 15, ±12 and ±15VDC
- Temperature Performance -25°C to +71°C
- Short Circuit Protection
- UL 94V-0 Package Material
- Internal SMD Construction

Selection Guide

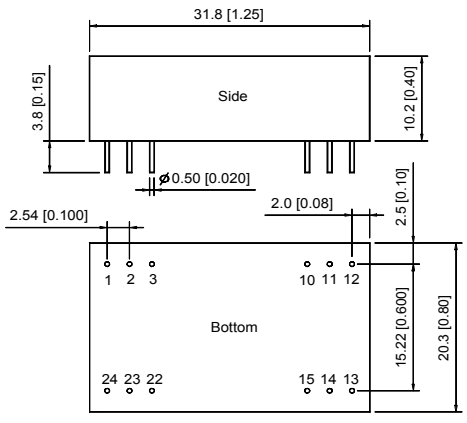
Model Number	Input Voltage	Output Voltage	Output Current	Efficiency	Reflected Ripple Current
	VDC	VDC	mA	% Typ.	mA Typ.
SRDC201R	5 (4.5 – 5.5)	5	400	50	80
SRDC202R		12	165	54	
SRDC203R		15	133	57	
SRDC204R		±12	±83	53	
SRDC205R		±15	±66	51	
SRDC206R	12 (10.8 – 13.2)	5	400	50	30
SRDC207R		12	165	56	
SRDC208R		15	133	62	
SRDC209R		±12	±83	59	
SRDC210R		±15	±66	59	
SRDC211R	24 (21.6 – 26.4)	5	400	51	15
SRDC212R		12	165	61	
SRDC213R		15	133	61	
SRDC214R		±12	±83	61	
SRDC215R		±15	±66	61	
SRDC216R	48 (43.2 – 52.8)	5	400	50	10
SRDC217R		12	165	59	
SRDC218R		15	133	59	
SRDC219R		±12	±83	51	
SRDC220R		±15	±66	51	

MPS Industries SRDC200R Model 2W DC/DC's are specially designed to provide 40mA output ripple, continuous short circuit in a low-profile 24-pin DIP package.

The series consists of 20 models with input voltages of 5V, 12V, 24V and 48VDC which offers regulated output voltages of 5V, 12V, 15V, ±12V and ±15VDC.

The -25°C to +71°C operating temperature range makes it ideal for data communication equipment, mobile battery driven equipment, distributed power systems, telecommunication equipment, mixed analog/digital subsystems, automatic test instrumentation, and industrial robot systems.

Mechanical Dimensions



Pin Connections

Pin	Singles	Duals
1	+Vin	+Vin
2	NC	-Vout
3	NC	Common
10	-Vout	Common
11	+Vout	+Vout
12	-Vin	-Vin
13	-Vin	-Vin
14	+Vout	+Vout
15	-Vout	Common
22	NC	Common
23	NC	-Vout
24	+Vin	+Vin

NC: No Connection

Case Size –
31.8x20.3x10.2mm (1.25x0.80x0.40inch)
Case Material –
Non-Conductive Black Plastic
Weight –
12.1g (0.43Oz)

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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SRDC200R SERIES

2W, Low Cost DIP, Single & Dual Output DC/DC Converters

Absolute Maximum Ratings

Parameter		Min.	Max.	Units
Input Surge Voltage (1000mS)	5VDC Input Models	-0.7	7.5	VDC
	12VDC Input Models	-0.7	15	VDC
	24VDC Input Models	-0.7	30	VDC
	48VDC Input Models	-0.7	55	VDC
Lead Temperature (1.5mm from case for 10sec.)		---	260	°C
Internal Power Dissipation		---	3000	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	500	---	---	VDC
Isolation Resistance	500VDC	1000	---	---	MΩ
Isolation Capacitance	100kHz, 1V	---	100	150	pF
Switching Frequency		40	80	---	kHz
MTBF	MIL-HDBK-217F @25°C Ground Benign	0.8	---	---	MHrs

Environmental Characteristics

Parameter	Conditions	Min.	Max.	Units
Operating Temperature	Ambient	-25	71	°C
Operating Temperature	Case	-25	90	°C
Storage Temperature		-40	125	°C
Humidity		---	95	%
Cooling	Free-Air Convection			

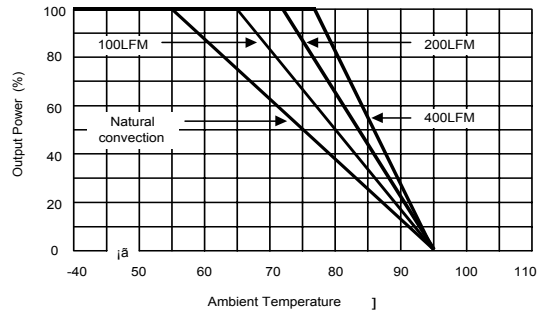
Output Characteristics

Parameter	Conditions	Min.	Typ.	Max.	Units
Line Regulation	Vin = Min. to Max.	---	±0.2	±0.5	%
Load Regulation	Io = 10% to 100%	---	±0.2	±0.5	%
Ripple & Noise	20MHz BW	---	40	50	mV P-P
Short Circuit	Continuous				

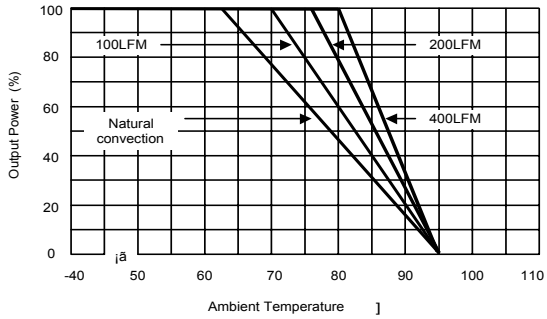
Maximum Capacitive Load

Models by Output Voltage (Each Output on Duals)	Singles	Duals	Units
	470	220	uF

Derating Curve (5V Output)



Derating Curve (Other Outputs)



Notes:

1. Specifications typical at Ta=+25°C, resistive load, nominal input voltage, rated output current unless otherwise noted.
2. Transient recovery time is measured to within 1% error band for a load step change of 50% to 100%.
3. All DC/DC converters should be externally fused at the front end for protection.
4. Other input and output voltage may be available, please contact factory.
5. All specifications subject to change without notice.
6. For detailed data sheet, please contact us directly.

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