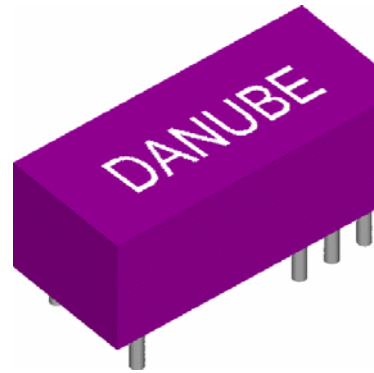


# DC-DC Converter UNIT

SR Series (0,5W TO 1W REGULATED DC-DC CONVERTER)

## FEATURES

- 1000VDC ISOLATION
- EFFICIENCY UP TO 72%
- INTERNAL SMD TECHNOLOGY
- LOW COST
- NO HEATSINK REQUIRED
- UP TO 1W REGULATED OUTPUT POWER
- DUAL IN LINE PACKAGE
- 100% BURNED IN
- MTBF > 2,000,000 HOURS



### ● OUTPUT SPECIFICATIONS

Voltage Setpoint Accuracy	+/-2% max
Temperature Coefficient	+/-0.03%/°C
Ripple & Noise (20MHz BW)	100mVp-p max
Line Regulation <sup>1</sup>	+/-0.5% max
Load Regulation <sup>2</sup>	+/-0.5% max

Short Circuit Protection	Current limit Protection
Short Circuit Restart	Automatic

### ● ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-25°C to +71°C
Storage Temperature	-55°C to +125°C
Cooling	Free-Air Convection

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25 °C UNLESS OTHERWISE NOTED.

### ● INPUT SPECIFICATIONS

Input Voltage Range	+/-10% max
Input Filter	Capacitor Type

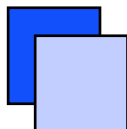
### ● GENERAL SPECIFICATIONS

Efficiency	50% min
Isolation Voltage <sup>3</sup>	1000 VDC min
Isolation Resistance	10 <sup>9</sup> ohms min
Switching Frequency	50 KHz min
Isolation Capacitance	80pF max
MTBF	2,000,000 Hours
Weight	3.1g Typ
Case Material	Non-Conductive Plastic
Case Size	22.6mm*9.9mm*8.4mm

<sup>1</sup> High Line to Low Line.

<sup>2</sup> Load Regulation is for output load current change from 20% to 100%.

<sup>3</sup> For 60 seconds



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## ● SELECTION GUIDE 0.5W-1W OUTPUT

MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)	OUTPUT POWER (Watt)
				FULL LOAD	NO LOAD			
				SRS-0505-1	4.5-5.5			
SRS-0509-1	4.5-5.5	9	56	175	11	57	1000	0.5W
SRS-0512-1	4.5-5.5	12	42	161	11	62	1000	0.5W
SRS-0515-1	4.5-5.5	15	34	173	37	58	1000	0.5W
SRS-1205-1	10.8-13.2	5	100	62	7	67	1000	0.5W
SRS-1209-1	10.8-13.2	9	56	66	5	63	1000	0.5W
SRS-1212-1	10.8-13.2	12	42	64	5	65	1000	0.5W
SRS-1215-1	10.8-13.2	15	34	64	5	65	1000	0.5W
SRS-2405-1	21.6-26.4	5	100	32	4	65	1000	0.5W
SRS-2409-1	21.6-26.4	9	56	32	3	65	1000	0.5W
SRS-2412-1	21.6-26.4	12	42	36	9	58	1000	0.5W
SRS-2415-1	21.6-26.4	15	34	30	3	70	1000	0.5W
SRS-4805-1	43.2-52.8	5	100	18	2	58	1000	0.5W
SRS-4809-1	43.2-52.8	9	56	18	2	58	1000	0.5W
SRS-4812-1	43.2-52.8	12	42	16	2	65	1000	0.5W
SRS-4815-1	43.2-52.8	15	34	16	2	65	1000	0.5W
SRS-0505-2	4.5-5.5	5	200	322	23	62	1000	1W
SRS-0509-2	4.5-5.5	9	111	333	22	60	1000	1W
SRS-0512-2	4.5-5.5	12	84	322	22	62	1000	1W
SRS-0515-2	4.5-5.5	15	67	322	21	62	1000	1W
SRS-1205-2	10.8-13.2	5	200	124	12	67	1000	1W
SRS-1209-2	10.8-13.2	9	111	134	13	62	1000	1W
SRS-1212-2	10.8-13.2	12	84	130	11	64	1000	1W
SRS-1215-2	10.8-13.2	15	67	130	11	64	1000	1W
SRS-2405-2	21.6-26.4	5	200	61	7	68	1000	1W
SRS-2409-2	21.6-26.4	9	111	64	6	65	1000	1W
SRS-2412-2	21.6-26.4	12	84	60	6	70	1000	1W
SRS-2415-2	21.6-26.4	15	67	60	6	70	1000	1W
SRS-4805-2	43.2-52.8	5	200	30	4	70	1000	1W
SRS-4809-2	43.2-52.8	9	111	30	3	70	1000	1W
SRS-4812-2	43.2-52.8	12	84	29	3	72	1000	1W
SRS-4815-2	43.2-52.8	15	67	29	3	72	1000	1W



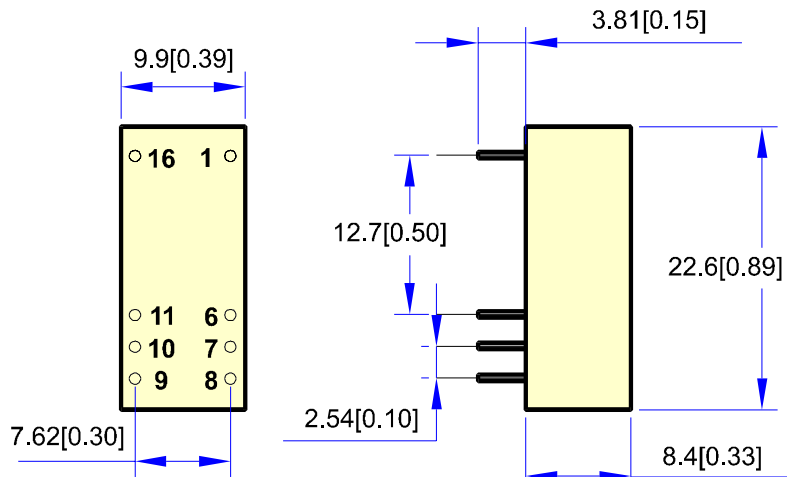
# DC-DC Converter UNIT

SR Series (0,5W TO 1W REGULATED DC-DC CONVERTER)

## MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

### BOTTOM VIEW

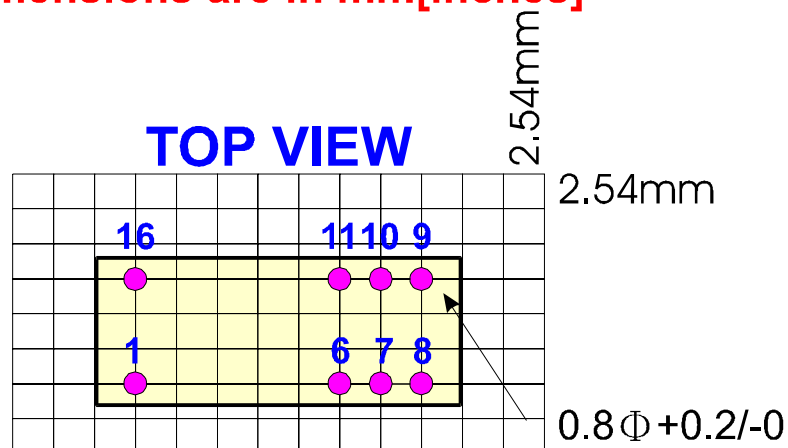
### SIDE VIEW



PIN	SINGLE
1 & 16	+Vin
6 & 11	-Vout
7 & 10	+Vout
8 & 9	-Vin

All dimensions are in mm[inches]

### TOP VIEW

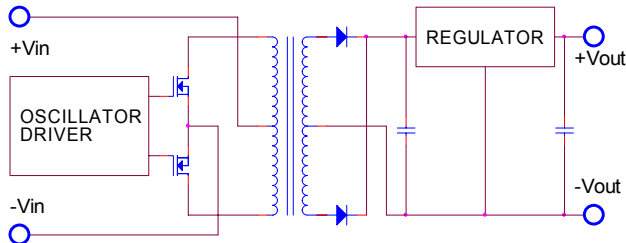




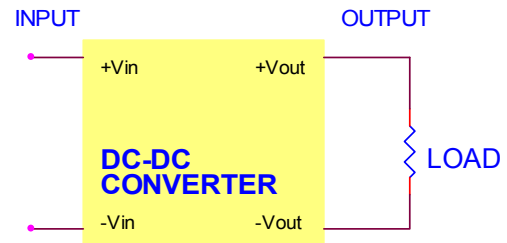
# DC-DC Converter UNIT

SR Series (0,5W TO 1W REGULATED DC-DC CONVERTER)

## ● SIMPLIFIED SCHEMATIC

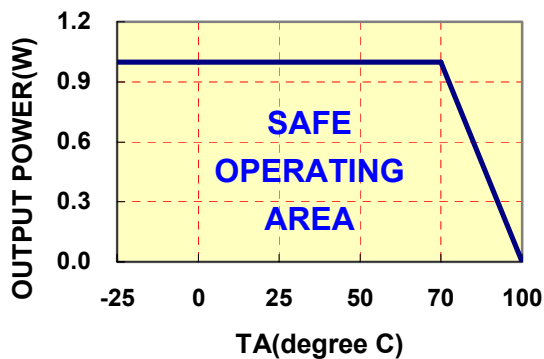


## ● TYPICAL APPLICATIONS

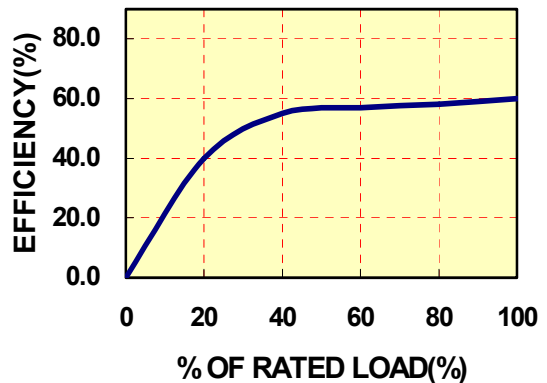


## ● TYPICAL PERFORMANCE CURVES

DERATING CURVE



EFFICIENCY VS LOAD



## SR SERIES APPLICATION NOTES:

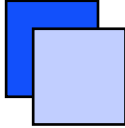
### EXTERNAL CAPACITANCE REQUIREMENTS:

No external capacitance is required for operation of the SR series.

To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 250KHz is required.

External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.

Additional output capacitance may be added for increased filtering, but should not exceed 100uF.



# DC-DC Converter UNIT

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SR Series (0,5W TO 1W REGULATED DC-DC CONVERTER)

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## **Negative Outputs:**

A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.

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## **FOR MORE INFORMATION CALL:**

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