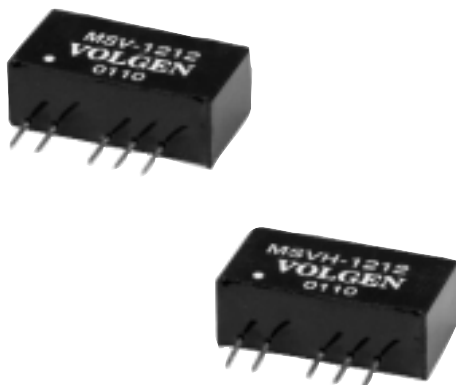


MSV / MSVH

1 AND 2 WATT DC/DC CONVERTERS SINGLE & MULTIPLE OUTPUTS



FEATURES

- HIGH ISOLATION VOLTAGE
- ECONOMY LINE
- SIP
- 7 PIN PACKAGE
- 3000 VDC ISOLATION
- UNREGULATED OUTPUT
- UL 94V-0 PACKAGE MATERIAL
- 5V ~ 24V INPUT MODELS
- ONE YEAR WARRANTY

ELECTRICAL SPECIFICATIONS

All specifications are typical at nominal input, full load

INPUT SPECIFICATIONS

Input Voltage Range..... $\pm 10\%$
Input Filter..... Capacitor

OUTPUT SPECIFICATIONS

Output Voltage Accuracy..... $\pm 5\%$
Efficiency..... 75% typ.
RippleMSV (Single) 100 mVp-p
(Dual) 75 mVp-p
.....MSVH (Single) 200 mVp-p
(Dual) 150 mVp-p
Line Regulation..... 1.2%/1% of V in
Line Filter..... Built-in
Load Regulation..... 5V=15% max.
9V, 12V, 15V=10% max.

GENERAL SPECIFICATIONS

*Isolation Voltage..... 3000 VDC
MTBF..... >1,000,000 hours
Isolation Resistance..... 1000M-ohms min. @ 500 VDC
*Isolation Voltage of 4,000 & 5,000 VDC available upon request.

ENVIRONMENTAL SPECIFICATIONS

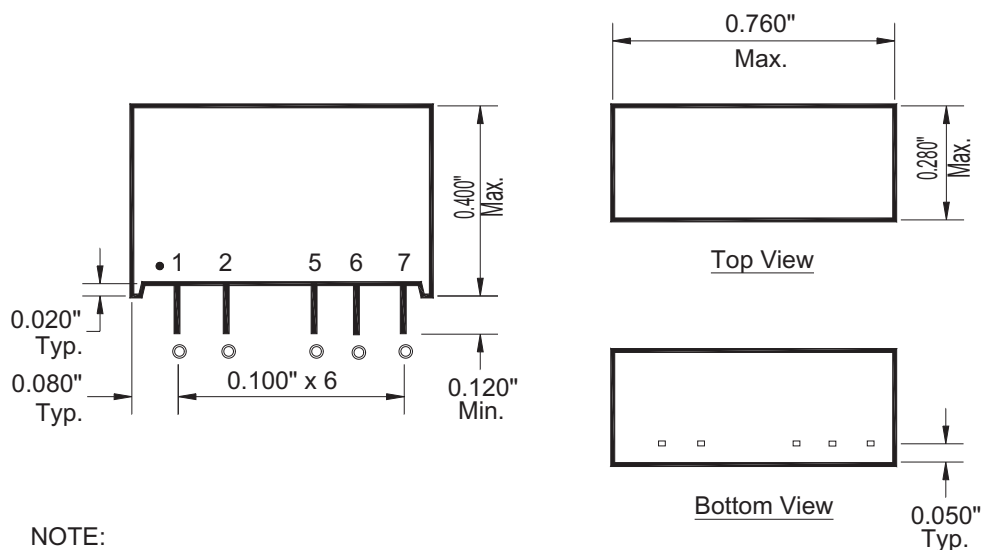
Operating Temperature $-25^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Temperature Coefficient..... $\pm 0.05\%/^{\circ}\text{C}$
Humidity..... 30%~95% RH
Storage Temperature..... $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$

PHYSICAL SPECIFICATIONS

Case Material.....UL 94V-0 Plastic
Single In-Line Pin Configuration

PART NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFFICIENCY
MSV - 0505	5 VDC	5 VDC	200 mA	70 %
MSV - 0509		9 VDC	111 mA	75 %
MSV - 0512		12 VDC	84 mA	80 %
MSV - 0515		15 VDC	66 mA	82 %
MSV - 0505D		±5 VDC	±100 mA	70 %
MSV - 0509D		±9 VDC	±56 mA	75 %
MSV - 0512D		±12 VDC	±42 mA	78 %
MSV - 0515D		±15 VDC	±33 mA	80 %
MSV - 1205	12 VDC	5 VDC	200 mA	70 %
MSV - 1209		9 VDC	111 mA	75 %
MSV - 1212		12 VDC	84 mA	80 %
MSV - 1215		15 VDC	66 mA	82 %
MSV - 1205D		±5 VDC	±100 mA	70 %
MSV - 1209D		±9 VDC	±56 mA	75 %
MSV - 1212D		±12 VDC	±42 mA	78 %
MSV - 1215D		±15 VDC	±33 mA	80 %
MSV - 1505	15 VDC	5 VDC	200 mA	70 %
MSV - 1509		9 VDC	111 mA	75 %
MSV - 1512		12 VDC	84 mA	80 %
MSV - 1515		15 VDC	66 mA	82 %
MSV - 1505D		±5 VDC	±100 mA	70 %
MSV - 1509D		±9 VDC	±56 mA	75 %
MSV - 1512D		±12 VDC	±42 mA	78 %
MSV - 1515D		±15 VDC	±33 mA	80 %
MSV - 2405	24 VDC	5 VDC	200 mA	70 %
MSV - 2409		9 VDC	111 mA	75 %
MSV - 2412		12 VDC	84 mA	80 %
MSV - 2415		15 VDC	66 mA	82 %
MSV - 2405D		±5 VDC	±100 mA	70 %
MSV - 2409D		±9 VDC	±56 mA	75 %
MSV - 2412D		±12 VDC	±42 mA	78 %
MSV - 2415D		±15 VDC	±33 mA	80 %

MSV - 1 WATT



NOTE:

*TERMINAL 0.020" x 0.010" FLAT PIN

NOTE:

All specifications typical and nominal / full load and 25°C unless otherwise noted.
Avoid sustained operation in overload or dead short conditions.
Specifications subject to changes without notice.

MSV - 1 WATT

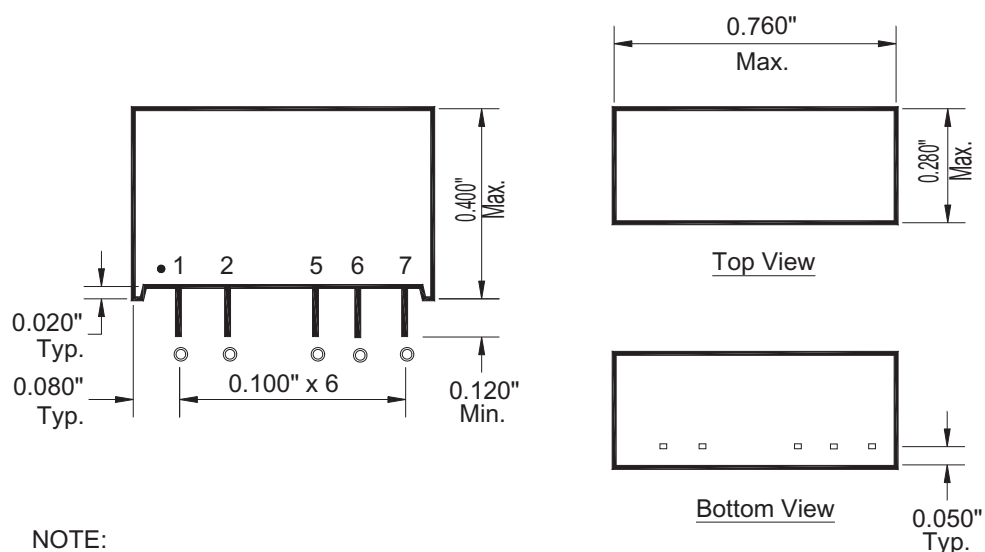
Pin Connections

PIN	SINGLE	DUAL
1	+INPUT	+INPUT
2	-INPUT	-INPUT
5	-OUTPUT-	-OUTPUT
6	NO PIN	COMMON
7	+OUTPUT	+OUTPUT

Series

PART NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	EFFICIENCY
MSVH - 0505	5 VDC	5 VDC	400 mA	75 %
MSVH - 0509		9 VDC	222 mA	75 %
MSVH - 0512		12 VDC	167 mA	78 %
MSVH - 0515		15 VDC	133 mA	80 %
MSVH - 0505D		±5 VDC	±200 mA	70 %
MSVH - 0509D		±9 VDC	±111 mA	75 %
MSVH - 0512D		±12 VDC	±84 mA	78 %
MSVH - 0515D		±15 VDC	±66 mA	80 %
MSVH - 1205	12 VDC	5 VDC	400 mA	82 %
MSVH - 1209		9 VDC	222 mA	78 %
MSVH - 1212		12 VDC	167 mA	80 %
MSVH - 1215		15 VDC	133 mA	85 %
MSVH - 1205D		±5 VDC	±200 mA	74 %
MSVH - 1209D		±9 VDC	±111 mA	75 %
MSVH - 1212D		±12 VDC	±84 mA	80 %
MSVH - 1215D		±15 VDC	±66 mA	82 %
MSVH - 1505	15 VDC	5 VDC	400 mA	78 %
MSVH - 1509		9 VDC	222 mA	78 %
MSVH - 1512		12 VDC	167 mA	80 %
MSVH - 1515		15 VDC	133 mA	80 %
MSVH - 1505D		±5 VDC	±200 mA	70 %
MSVH - 1509D		±9 VDC	±111 mA	75 %
MSVH - 1512D		±12 VDC	±84 mA	80 %
MSVH - 1515D		±15 VDC	±66 mA	82 %
MSVH - 2405	24 VDC	5 VDC	400 mA	80 %
MSVH - 2409		9 VDC	222 mA	80 %
MSVH - 2412		12 VDC	167 mA	84 %
MSVH - 2415		15 VDC	133 mA	85 %
MSVH - 2405D		±5 VDC	±200 mA	75 %
MSVH - 2409D		±9 VDC	±111 mA	78 %
MSVH - 2412D		±12 VDC	±84 mA	80 %
MSVH - 2415D		±15 VDC	±66 mA	82 %

2 WATT



MSVH - 2 WATTS

Pin Connections

PIN	SINGLE	DUAL
1	+INPUT	+INPUT
2	-INPUT	-INPUT
5	-OUTPUT-	-OUTPUT
6	NO PIN	COMMON
7	+OUTPUT	+OUTPUT

NOTE:

*TERMINAL 0.020" x 0.010" FLAT PIN

NOTE:

All specifications typical and nominal / full load and 25°C unless otherwise noted.
Avoid sustained operation in overload or dead short conditions.
Specifications subject to changes without notice.

