

FEATURES

- 1000VDC ISOLATION
- EFFICIENCY UP TO 82%
- INTERNAL SMD TECHNOLOGY
- LOW COST
- NO HEATSINK REQUIRED
- UP TO 1W UNREGULATED OUTPUT POWER
- SINGLE 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 Regulation¹ +/-1.2% max

Load Regulation² +/-8% max

Short Circuit Protection Momentary

● 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 70%-82%

Isolation Voltage³ 1000 VDC min

Isolation Resistance 10⁹ ohms min

Switching Frequency 100 KHz min

Isolation Capacitance 80pF max

MTBF 2,000,000 Hours

Weight 1.3g Typ

Case Material Non-Conductive Plastic

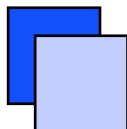
Case Size 11.6mm*6.1mm*10.2mm

11.6mm*7.6mm*10.2mm

¹ Line Regulation is for a 1.0% change in input Voltage.

² Load Regulation is for output load current change from 20% to 100%.

³ For 60 seconds



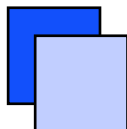
DC-DC Converter UNIT

MU Series (1 W UNREGULATED DC-DC CONVERTER)

● SELECTION GUIDE 1W OUTPUT

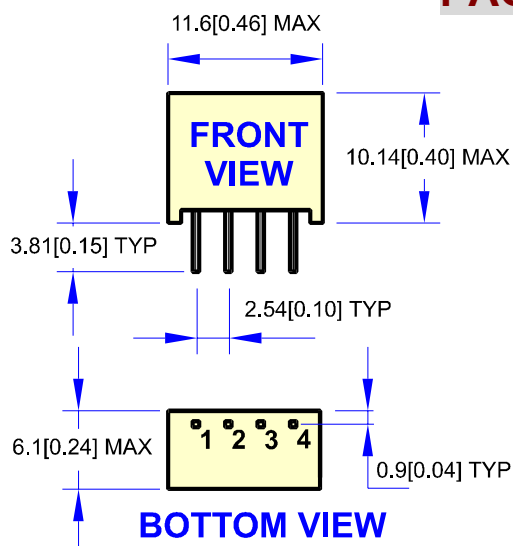
MODEL NUMBER	INPUT VOLTAGE (VDC)	OUTPUT VOLTAGE (VDC)	OUTPUT CURRENT (mA)	INPUT CURRENT(mA)		EFF (%)	ISOLATION (VDC)	PACKAGE
				FULL LOAD	NO LOAD			
MUS-0505	5	5	200	274	26	73	1000	A
MUS-0509	5	9	110	260	27	77	1000	A
MUS-0512	5	12	84	253	26	79	1000	A
MUS-0515	5	15	67	253	28	79	1000	A
MUS-1203.3	12	3.3	300	112	11	74	1000	B
MUS-1205	12	5	200	112	11	74	1000	A
MUS-1209	12	9	110	105	11	79	1000	A
MUS-1212	12	12	84	102	11	82	1000	A
MUS-1215	12	15	67	102	12	82	1000	A
MUS-2403.3	24	3.3	300	57	8	73	1000	B
MUS-2405	24	5	200	57	8	73	1000	B
MUS-2409	24	9	110	54	8	77	1000	B
MUS-2412	24	12	84	54	8	77	1000	B
MUS-2415	24	15	67	52	7	80	1000	B

Note: Other input to output voltages may be available. Please contact factory.



● MECHANICAL DIMENSIONS

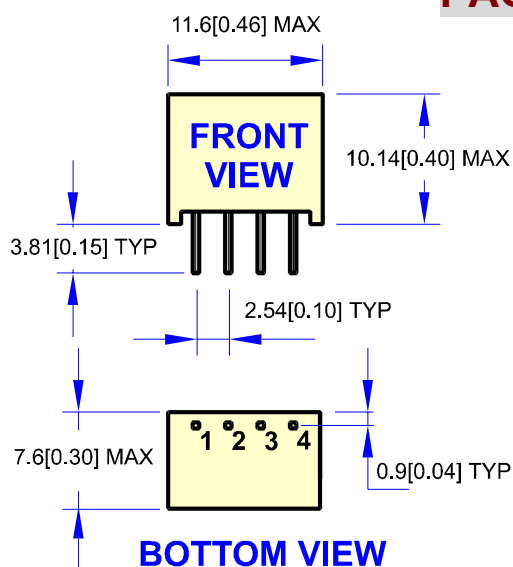
PACKAGE "A"



PIN	SINGLE
1	-Vin
2	+Vin
3	-Vout
4	+Vout

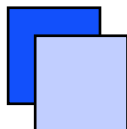
All dimensions are in mm[inches]

PACKAGE "B"



PIN	SINGLE
1	-Vin
2	+Vin
3	-Vout
4	+Vout

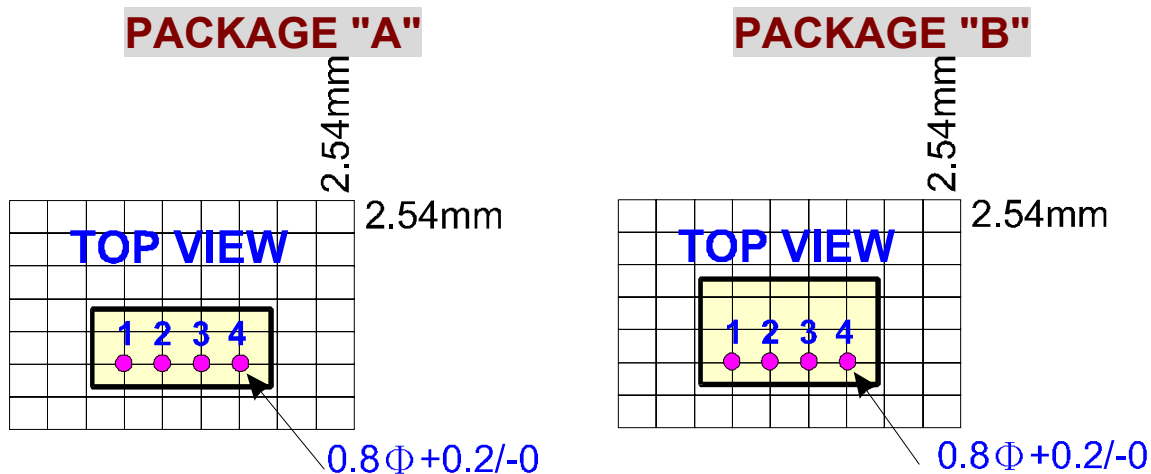
All dimensions are in mm[inches]



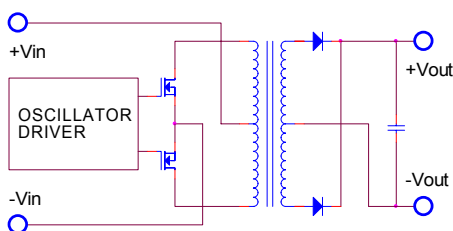
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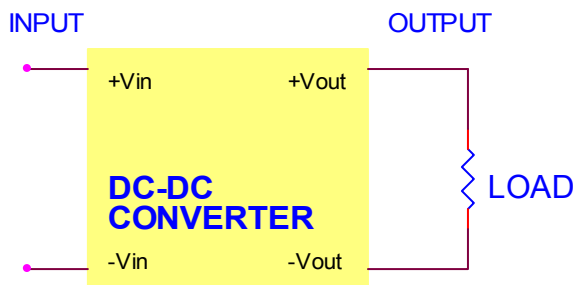
● RECOMMENDED FOOTPRINT DETAILS



● SIMPLIFIED SCHEMATIC



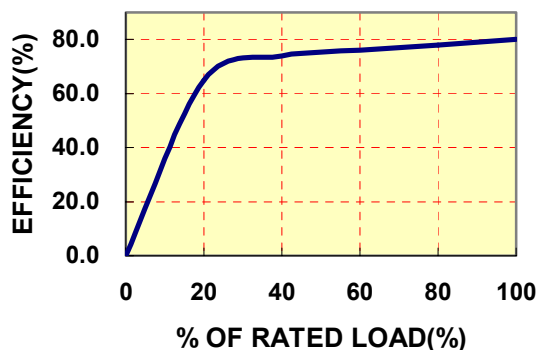
● TYPICAL APPLICATIONS



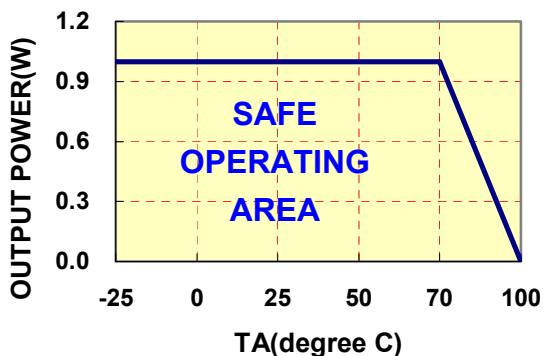
● TYPICAL PERFORMANCE CUREVES

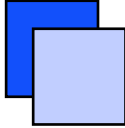
Specifications typical at $t_a=25^{\circ}\text{C}$, nominal input voltage , rated output current unless otherwise specified.

EFFICIENCY VS LOAD



DERATING CURVE





DC-DC Converter UNIT

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MU SERIES APPLICATION NOTES:

EXTERNAL CAPACITANCE REQUIREMENTS:

Output filtering is required for operation. A minimum of 10uF is needed. Output capacitance may be increased for additional filtering, not to exceed 220uF.

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

Negative Outputs:

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

FOR MORE INFORMATION CALL:

Power Systems – The Power Solution

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