

International Power Sources, Inc.

260 Hopping Brook Road
 Holliston, Massachusetts 01746
 Tel. (508) 429-4440 Fax (800) 226-2100
<http://www.intlpower.com>

DC/DC Converters



SHOWN
 ACTUAL
 SIZE

NMF SERIES 1 WATT Flash Memory Programming

FEATURES

- Remote Flash Programming
- 0.18 in² Board Space
- Fully Regulated Outputs
- 5, 12, 24, and 48 VDC Inputs
- 1000 VDC Isolation
- 5, 9, 12, 12.75, and 15 VDC Outputs
- 100% Tested/Burned-In
- Surface Mount Available

DESCRIPTION

The NMF Series is a family of miniature fully regulated isolated DC/DC converters. Units are available with 5, 12, 24, and 48 VDC inputs and outputs of 5, 9, 12, 12.75, and 15 VDC. Delivered power is 1 Watt, input to output isolation of 1000 VDC with units occupying only 0.18 square inches of board space.

The NMF0512S and NMF0513S are specifically designed for use with flash memory. A control pin is provided for remote in-circuit electrical erasure and reprogramming of flash memory devices.

MODELS CHART

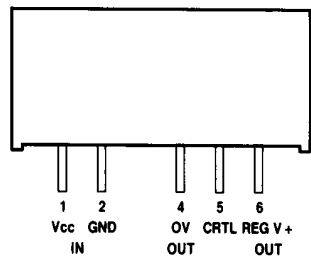
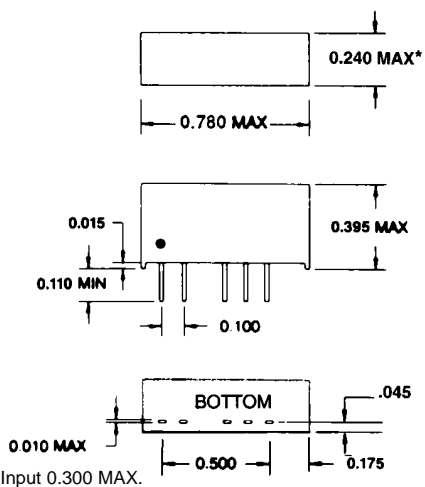
| OUTPUT VOLTAGE(S) | OUTPUT CURRENT(S) | PART NUMBERS | | | |
|-------------------|-------------------|--------------|-------------|-------------|-------------|
| | | 5VDC INPUT | 12VDC INPUT | 24VDC INPUT | 48VDC INPUT |
| 5VDC | 100mA | NMF0505S | NMF1205S | NMF2405S | NMF4805S |
| 9VDC | 100mA | NMF0509S | NMF1209S | NMF2409S | NMF4809S |
| 12VDC | 83mA | NMF0512S | NMF1212S | NMF2412S | NMF4805S |
| 12.75VDC | 78mA | NMF0513S | — | — | — |
| 15VDC | 67mA | NMF0515S | NMF1215S | NMF2415S | NMF4815S |

ELECTRICAL SPECIFICATIONS

All specifications typical at nominal line, full load and 25°C

| | |
|--|---|
| Input voltage range | ±5% |
| Input reflected noise (20MHz BW) | 40mV p-p |
| Output voltage accuracy | ±5% |
| Line regulation (10% to 100% Load) | .25%/1% of Vin |
| Load regulation (10% to 100% Load) | 1.5% max. |
| Output ripple and noise (20 MHz BW) | 60mV p-p max. |
| Efficiency at full load, 9V, 12V and 15V outputs | 62% typical, 55% min. |
| Efficiency at full load, 5V output | 50% typical, 45% min. |
| Total output power (any output) | 1 Watt |
| Short circuit protection | Indefinite |
| Switching frequency | 100 KHz |
| Input output isolation | 1000VDC (1000 megohms) min. |
| Temperature coefficient | 0.03% per °C max. |
| Operating temperature range | -50°C to 125°C 0°C to 70°C (no derating) |
| Storage temperature range | -55°C to 125°C |

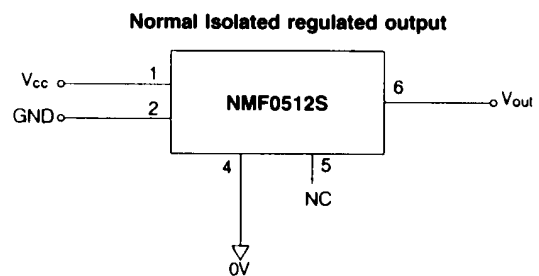
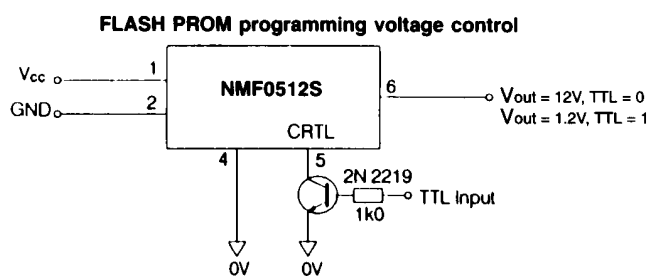
DIMENSIONS AND CONNECTIONS



* 24 & 48 VDC Input 0.300 MAX.

Pins .01 x .02 inches

TYPICAL APPLICATIONS



Dimensions in inches.
Specifications subject to change.
Unit requires 10mm of air space.