

**International  
Power Sources, Inc.**

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## DC/DC Converters Surface Mount



**NTA/NTE SERIES  
1 WATT**

### FEATURES

- Surface Mountable
- Reflow to 280°C
- -40°C to 85°C Operation
- 1000 VDC Isolation
- 29 Watts per in<sup>3</sup>
- 0.15 in<sup>2</sup> board space
- MTBF 2 million hours
- Available in tape and reel

### MODELS CHART

#### NTA SERIES

| OUTPUT<br>VOLTAGES | OUTPUT<br>CURRENTS | PART NUMBERS |             |
|--------------------|--------------------|--------------|-------------|
|                    |                    | 5VDC INPUT   | 12VDC INPUT |
| ±5VDC              | ±100mA             | NTA0505M     | NTA1205M    |
| ±9VDC              | ±55mA              | NTA0509M     | NTA1209M    |
| ±12VDC             | ±42mA              | NTA0512M     | NTA1212M    |
| ±15VDC             | ±33mA              | NTA0515M     | NTA1215M    |

#### NTE SERIES

| OUTPUT<br>VOLTAGE | OUTPUT<br>CURRENT | PART NUMBERS |             |
|-------------------|-------------------|--------------|-------------|
|                   |                   | 5VDC INPUT   | 12VDC INPUT |
| 5VDC              | 200mA             | NTE0505M     | NTE1205M    |
| 9VDC              | 110mA             | NTE0509M     | NTE1209M    |
| 12VDC             | 83mA              | NTE0512M     | NTE1212M    |
| 15VDC             | 66mA              | NTE0515M     | NTE1215M    |

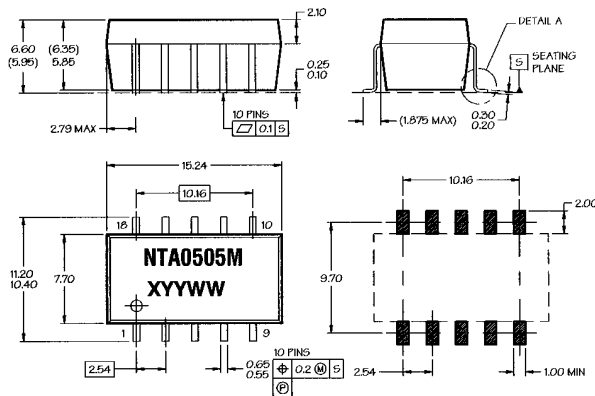
Specifications subject to change. Unit requires 10mm of air space.

## ELECTRICAL SPECIFICATIONS

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

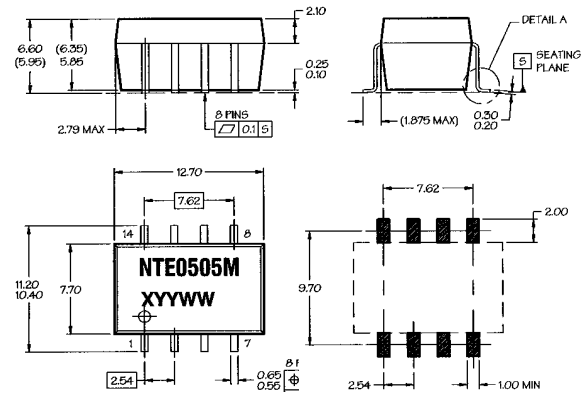
|                                                  |                             |
|--------------------------------------------------|-----------------------------|
| Input voltage range                              | ±10%                        |
| Input reflected noise (20MHz BW)                 | 180mV p-p max.              |
| Output voltage accuracy                          | ±5%                         |
| Line regulation (10% to 100% Load)               | 1.2%/1% of Vin              |
| Load regulation (10% to 100% Load)               | ±12%max.                    |
| Output ripple and noise (20 MHz BW)              | 110mV p-p max.              |
| Efficiency at full load, 9V, 12V and 15V outputs | 75% typical                 |
| Efficiency at full load, 5V outputs              | 70% typical                 |
| Total output power (any output)                  | 1 watt                      |
| Short circuit protection                         | 1 second max.               |
| Switching frequency                              | 110 KHz                     |
| Input output isolation                           | 1000VDC (1000 megohms) min. |
| Temperature coefficient                          | 0.03% per °C max.           |
| Operating temperature range                      | -50°C to 125°C              |
|                                                  | -40°C to 85°C (no derating) |
| Storage temperature range                        | -55°C to 110°C              |

## MECHANICAL SPECIFICATIONS



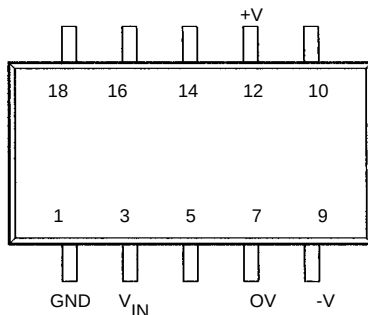
RECOMMENDED  
FOOTPRINT DETAILS

MILLIMETRES XXXX±0.25

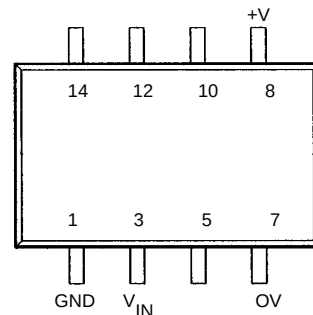


RECOMMENDED  
FOOTPRINT DETAILS

## PIN CONNECTIONS



NTA  
18 PIN SMD (TOP VIEW)



NTE  
14 PIN SMD (TOP VIEW)