

- Regulated Single & Dual Output
- Wide 4:1 Input Range
- SIP Package
- 1500 VDC Isolation
- Remote On/Off
- Continuous Short Circuit Protection
- 3 Year Warranty

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|--------------------------------|------------------------------------------------------------------------------------|
| Input Voltage Range            | • See table                                                                        |
| Input Reflected Ripple Current | • 20 mA pk-pk through 12 $\mu$ H inductor and 47 $\mu$ F capacitor, 5 Hz to 20 MHz |
| Input Filter                   | • Capacitor                                                                        |
| Input Surge                    | • 24 V models: 50 VDC for 100 ms<br>48 V models: 100 VDC for 100 ms                |

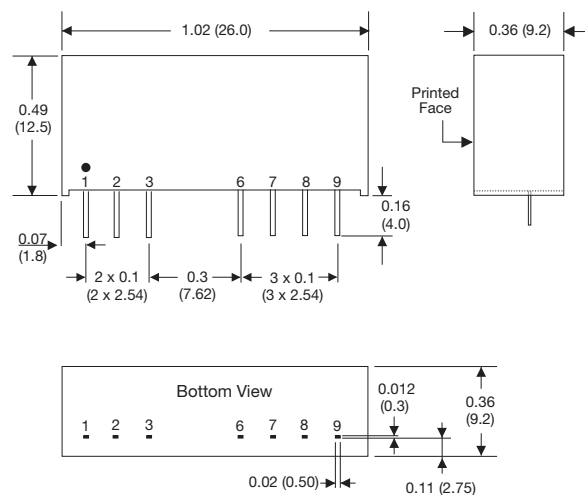
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|---------------------------------|--------------------------------------------------------|
| <b>Output Voltage</b>           | • See table                                            |
| <b>Minimum Load</b>             | • None <sup>(1)</sup>                                  |
| <b>Line Regulation</b>          | • $\pm 0.5\%$ max                                      |
| <b>Load Regulation</b>          | • $\pm 0.5\%$ max from 10-100% load <sup>(1)</sup>     |
| <b>Setpoint Accuracy</b>        | • $\pm 1\%$ max                                        |
| <b>Ripple &amp; Noise</b>       | • 50 mV pk-pk max, 20 MHz bandwidth                    |
| <b>Short Circuit Protection</b> | • Continuous with auto recovery (foldback)             |
| <b>Cross Regulation</b>         | • $\pm 5\%$ on dual output models <sup>(2)</sup>       |
| <b>Remote On/Off</b>            | • Applying 2.7 to 15 VDC to pin 3 will turn output off |
| <b>Temperature Coefficient</b>  | • 0.02%/C                                              |

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|-----------------------|-------------------------------------------|
| Efficiency            | • See table                               |
| Isolation Voltage     | • 1500 VDC                                |
| Isolation Resistance  | • $10^9 \Omega$                           |
| Isolation Capacitance | • 500 pF max                              |
| Switching Frequency   | • 250 kHz typical                         |
| MTBF                  | • >1.2 Mhrs to MIL-HDBK-217F at 25 °C, GB |

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|-----------------------|--------------------------------------------------------------------------|
| Operating Temperature | • -40 °C to +100 °C, derate from 100% load at 75 °C to 0% load at 100 °C |
| Storage Temperature   | • -40 °C to +125 °C                                                      |
| Case Temperature      | • 100 °C max                                                             |
| Cooling               | • Convection-cooled                                                      |

1. Operation at no load will not damage the converter but may not meet all specifications.
2. When one output is set to 100% load and the other varies between 25%-100% load.
3. Input current measured at nominal input voltage
4. Pin pitch tolerance:  $\pm 0.014$  ( $\pm 0.35$ )
5. Case tolerance:  $\pm 0.02$  ( $\pm 0.5$ )
6. Weight: 0.014 lbs (6.5 g)

| Input Voltage | Output Voltage | Output Current | No Load Input Current <sup>(3)</sup> | Max Capacitive Load | Efficiency | Model Number |
|---------------|----------------|----------------|--------------------------------------|---------------------|------------|--------------|
| 9.0-36.0 V    | 3.3 V          | 500 mA         | 10 mA                                | 2200 µF             | 75%        | IM2403SA     |
|               | 5.0 V          | 400 mA         | 10 mA                                | 1000 µF             | 81%        | IM2405SA     |
|               | 12.0 V         | 165 mA         | 10 mA                                | 165 µF              | 84%        | IM2412SA     |
|               | 15.0 V         | 135 mA         | 10 mA                                | 100 µF              | 85%        | IM2415SA     |
|               | ±5.0 V         | ±200 mA        | 10 mA                                | ±470 µF             | 81%        | IM2405S      |
|               | ±12.0 V        | ±85 mA         | 10 mA                                | ±100 µF             | 83%        | IM2412S      |
|               | ±15.0 V        | ±65 mA         | 10 mA                                | ±47 µF              | 82%        | IM2415S      |
| 18.0-75.0 V   | 3.3 V          | 500 mA         | 5 mA                                 | 2200 µF             | 75%        | IM4803SA     |
|               | 5.0 V          | 400 mA         | 5 mA                                 | 1000 µF             | 80%        | IM4805SA     |
|               | 12.0 V         | 165 mA         | 5 mA                                 | 165 µF              | 84%        | IM4812SA     |
|               | 15.0 V         | 135 mA         | 5 mA                                 | 100 µF              | 84%        | IM4815SA     |
|               | ±5.0 V         | ±200 mA        | 5 mA                                 | ±470 µF             | 80%        | IM4805S      |
|               | ±12.0 V        | ±85 mA         | 5 mA                                 | ±100 µF             | 81%        | IM4812S      |
|               | ±15.0 V        | ±65 mA         | 5 mA                                 | ±47 µF              | 84%        | IM4815S      |



| PIN CONNECTIONS |               |               |     |           |           |
|-----------------|---------------|---------------|-----|-----------|-----------|
| Pin             | Single        | Dual          | Pin | Single    | Dual      |
| 1               | -V Input      | -V Input      | 7   | N.C.      | Common    |
| 2               | +V Input      | +V Input      | 8   | N.C.      | N.C.      |
| 3               | Remote On/Off | Remote On/Off | 9   | -V Output | -V Output |
| 6               | +V Output     | +V Output     |     |           |           |