



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 2 Watts

## IM Series



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

### Specification

#### Input

- 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  
48 V models: 100 VDC for 100 ms

#### Output

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

#### General

- 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

#### Environmental

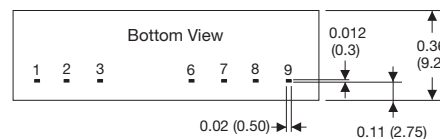
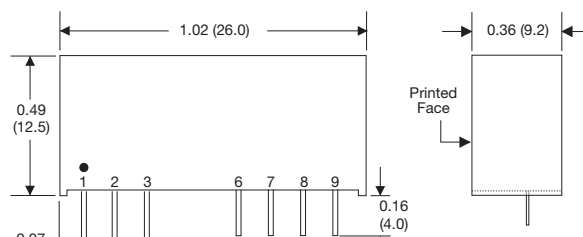
- Operating Temperature • -40 °C to +100 °C, derate from 100% load at 75 °C to 0% load at 100 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • 100 °C max
- Cooling • Convection-cooled

#### Notes

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 $\mu$ F	75%	IM2403SA
	5.0 V	400 mA	10 mA	1000 $\mu$ F	81%	IM2405SA
	12.0 V	165 mA	10 mA	165 $\mu$ F	84%	IM2412SA
	15.0 V	135 mA	10 mA	100 $\mu$ F	85%	IM2415SA
	$\pm 5.0$ V	$\pm 200$ mA	10 mA	$\pm 470$ $\mu$ F	81%	IM2405S
	$\pm 12.0$ V	$\pm 85$ mA	10 mA	$\pm 100$ $\mu$ F	83%	IM2412S
	$\pm 15.0$ V	$\pm 65$ mA	10 mA	$\pm 47$ $\mu$ F	82%	IM2415S
18.0-75.0 V	3.3 V	500 mA	5 mA	2200 $\mu$ F	75%	IM4803SA
	5.0 V	400 mA	5 mA	1000 $\mu$ F	80%	IM4805SA
	12.0 V	165 mA	5 mA	165 $\mu$ F	84%	IM4812SA
	15.0 V	135 mA	5 mA	100 $\mu$ F	84%	IM4815SA
	$\pm 5.0$ V	$\pm 200$ mA	5 mA	$\pm 470$ $\mu$ F	80%	IM4805S
	$\pm 12.0$ V	$\pm 85$ mA	5 mA	$\pm 100$ $\mu$ F	81%	IM4812S
	$\pm 15.0$ V	$\pm 65$ mA	5 mA	$\pm 47$ $\mu$ F	84%	IM4815S

### Mechanical Details



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			