

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 μ H inductor 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 Range • See table
- Minimum Load • None⁽¹⁾
- Line Regulation • $\pm 0.5\%$ max
- Load Regulation • $\pm 0.5\%$ max from 10-100% load (see note 1)
- 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 (see note 2)
- 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

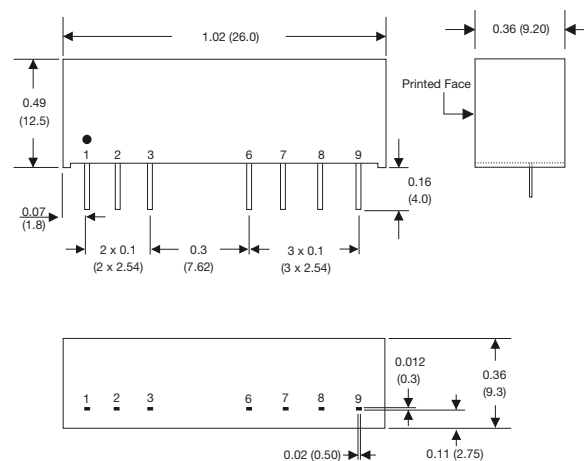
- Operating Temperature • -40 °C to +100 °C, derate from 100% load at 75 °C to 0% load at 100 °C
- Storage Temperature • -40 °C to +125 °C
- Case Temperature • 100 °C max
- Cooling • Convection-cooled

Notes

1. Operation at no load will not damage the converter but ripple & noise may be higher.
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: ± 0.014 (± 0.35), Case tolerance: ± 0.02 (± 0.5)
5. Weight: 0.014 lbs (6.5 g)

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