1.5 Watt
IN Series

- Regulated Dual Output
- DIP-24 Package
- 1000 VDC Isolation
- Optional Isolation Up To 6000 VDC
- Non-conductive Black Plastic Case
- Continuous Short Circuit Protection
- MTBF >3 MHrs

Specification

Input

Input Voltage Range	• Nominal ±10%
Input Filter	• Pi network
Input Reverse Voltage Protection	• None
Input Reflected Ripple Current	• 35 mA pk-pk through 12 µH inductor 5 Hz to 20 MHz

Output

Output Voltage	• See table
Minimum Load	• None
Voltage Balance	• ±1%
Line Regulation	• ±0.5% max
Load Regulation	• ±0.5% max
Setpoint Accuracy	• ±2% max
Ripple & Noise	• 75 mV pk-pk 20 MHz bandwidth
Temperature Coefficient	• 0.02%/°C
Short Circuit Protection	• Continuous with auto recovery
Maximum Capacitive Load	• ±1000 µF for ±5 V output ±470 µF for ±9 V to ±15 V output ±220 µF for ±24 V output

General

Efficiency	• See table
Isolation Voltage	• 1000 VDC (5200 VDC max, see note 2)
Isolation Resistance	• $10^9\ \Omega$
Isolation Capacitance	• 60 pF typical
Switching Frequency	• 350 kHz typical
MTBF	• >3 MHrs

Environmental

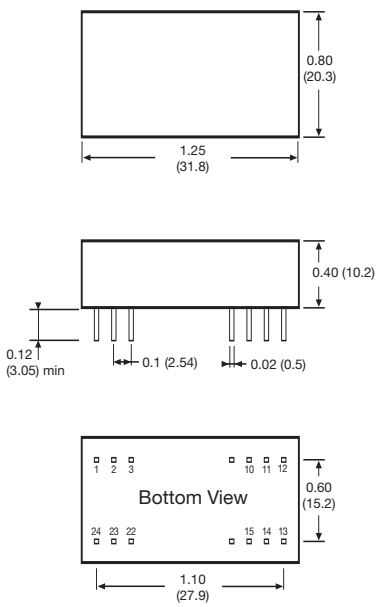
Operating Temperature	• -40 °C to +85 °C
Storage Temperature	• -40 °C to +125 °C
Case Temperature	• +100 °C max
Cooling	• Convection-cooled

Notes

1. All dimensions in inches (mm).
2. Add suffix '-H' to model number for 3 kVDC isolation, '-H4' for 4 kVDC isolation, '-H5' for 5.2 kVDC isolation and '-H6' for 6 kVDC isolation.

Input Voltage	Output Voltage	Output Current	Efficiency	Model Number[2]
5 VDC	±5.0 V	±150 mA	65%	IN0505D
	±9.0 V	±84 mA	67%	IN0509D
	±12.0 V	±63 mA	70%	IN0512D
	±15.0 V	±50 mA	67%	IN0515D
	±24.0 V	±32 mA	66%	IN0524D
12 VDC	±5.0 V	±150 mA	68%	IN1205D
	±9.0 V	±84 mA	70%	IN1209D
	±12.0 V	±63 mA	75%	IN1212D
	±15.0 V	±50 mA	72%	IN1215D
	±24.0 V	±32 mA	71%	IN1224D
24 VDC	±5.0 V	±150 mA	70%	IN2405D
	±9.0 V	±84 mA	73%	IN2409D
	±12.0 V	±63 mA	78%	IN2412D
	±15.0 V	±50 mA	75%	IN2415D
	±24.0 V	±32 mA	74%	IN2424D

Mechanical Details



Pin Connections		
Pin	Standard	'-H' Versions
1	+Vin	+Vin
2	-Vout	+Vin
3	Common	No Pin
10	Common	Common
11	+Vout	Common
12	-Vin	No Pin
13	-Vin	-Vout
14	+Vout	No Pin
15	Common	+Vout
22	Common	No Pin
23	-Vout	-Vin
24	+Vin	-Vin