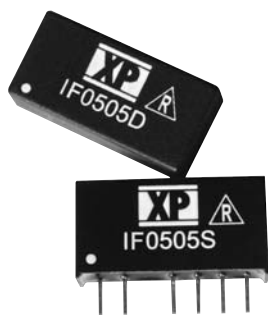


# 1 Watt IF Series



- Regulated Single Output
- SIP or DIP Package
- Low Ripple & Noise
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- MTBF 4.2 Mhrs
- 3 Year Warranty

## Specification

### Input

- Input Voltage Range** • Nominal  $\pm 10\%$
- Input Reflected Ripple Current** • 20 mA pk-pk through 12  $\mu\text{H}$  inductor, 5 Hz to 20 MHz
- Input Reverse Voltage Protection** • None

### Output

- Output Voltage** • See table
- Minimum Load** • None<sup>(3)</sup>
- Line Regulation** •  $\pm 0.5\%$  max
- Load Regulation** •  $\pm 0.5\%$  max for a 10-100% load change<sup>(3)</sup> ( $\pm 1.0\%$  for 3.3 V output)
- Setpoint Accuracy** •  $\pm 2\%$  max
- Ripple & Noise** • 50 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient** •  $0.02\%/^{\circ}\text{C}$
- Maximum Capacitive Load** • 220  $\mu\text{F}$

### General

- Efficiency** • See table
- Isolation Voltage** • 1000 VDC standard, 3000 VDC option<sup>(2)</sup>
- Isolation Resistance** • 1000 M $\Omega$  min
- Isolation Capacitance** • 60 pF typical
- Switching Frequency** • 36-150 kHz variable
- MTBF** • 4.2 Mhrs to MIL-HDBK-217F at 25  $^{\circ}\text{C}$ , GB

### Environmental

- Operating Temperature** •  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  (no derating)
- Storage Temperature** •  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Case Temperature** •  $+100^{\circ}\text{C}$  max
- Cooling** • Convection-cooled

### Notes

- For DIP package, replace suffix 'S' with suffix 'D'.
- For 3000 VDC isolation, add suffix '-H'.
- Operation at no load will not damage unit but it may not meet all specifications.
- All dimensions in inches (mm).
- Pin pitch tolerance:  $\pm 0.014$  ( $\pm 0.35$ )
- Case tolerance:  $\pm 0.02$  ( $\pm 0.5$ )
- Weight: 0.005 lbs (2.4 g)

Input Voltage	Output Voltage	Output Current	Efficiency	Model Number <sup>(1,2)</sup>
5 V	3.3 V	333 mA	57%	IF0503S <sup>†</sup> ^
	5.0 V	200 mA	65%	IF0505S <sup>†</sup> ^
	9.0 V	111 mA	65%	IF0509S <sup>†</sup> ^
	12.0 V	84 mA	68%	IF0512S <sup>†</sup> ^
	15.0 V	67 mA	68%	IF0515S <sup>†</sup> ^
12 V	3.3 V	333 mA	57%	IF1203S <sup>†</sup> ^
	5.0 V	200 mA	63%	IF1205S <sup>†</sup> ^
	9.0 V	111 mA	66%	IF1209S <sup>†</sup> ^
	12.0 V	84 mA	68%	IF1212S <sup>†</sup> ^
	15.0 V	67 mA	66%	IF1215S <sup>†</sup> ^
24 V	3.3 V	333 mA	60%	IF2403S <sup>†</sup> ^
	5.0 V	200 mA	65%	IF2405S <sup>†</sup> ^
	9.0 V	111 mA	68%	IF2409S <sup>†</sup> ^
	12.0 V	84 mA	68%	IF2412S <sup>†</sup> ^
	15.0 V	67 mA	68%	IF2415S <sup>†</sup> ^

<sup>†</sup> Available from Farnell & element14. See pages 284-290.

<sup>^</sup> Available from Newark. See pages 291-296.

### Mechanical Details

