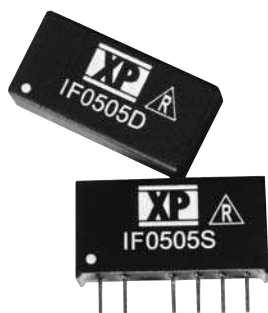


1 Watt

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 μ H inductor, 5 Hz to 20 MHz |
| Input Reverse Voltage Protection | • None |

Output

- | | |
|-------------------------|--|
| Output Voltage | • See table |
| Minimum Load | • None ⁽³⁾ |
| Line Regulation | • $\pm 0.5\%$ max |
| Load Regulation | • $\pm 0.5\%$ max for a 10-100% load change ⁽³⁾ ($\pm 1.0\%$ 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 μ F |

General

- | | |
|-----------------------|---|
| Efficiency | • See table |
| Isolation Voltage | • 1000 VDC standard, 3000 VDC option ⁽²⁾ |
| Isolation Resistance | • 1000 M Ω 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°C to $+85^{\circ}\text{C}$ (no derating) |
| Storage Temperature | • -40°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: ± 0.014 (± 0.35)
- Case tolerance: ± 0.02 (± 0.5)
- Weight: 0.005 lbs (2.4 g)

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

[†] Available from Farnell & element14. See pages 284-290.

[^] Available from Newark. See pages 291-296.

Mechanical Details

