

## IB Series



- Single Output
- SIP or DIP Package
- Industry Standard Pinout
- 1000 VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >1.1 MHours
- 3 Year Warranty

### Specification

#### Input

- Input Voltage Range** • Nominal  $\pm 10\%$ <sup>(4)</sup>
- Input Reflected Ripple Current** • 20 mA pk-pk through 12  $\mu$ H inductor, 5 Hz to 20 MHz
- Input Reverse Voltage Protection** • None

#### Output

- Output Voltage** • See table
- Minimum Load** • None<sup>(5)</sup>
- Line Regulation** • 1.2%/1%  $\Delta$  Vin
- Load Regulation** • 10% for a 20-100% load change<sup>(5)</sup> (3.3 V models  $\pm 20\%$ )
- Setpoint Accuracy** •  $\pm 3\%$
- Ripple & Noise** • 75 mV pk-pk max, 20 MHz bandwidth
- Temperature Coefficient** • 0.02%/°C
- Maximum Capacitive Load** • 220  $\mu$ F

#### General

- Efficiency** • See table
- Isolation Voltage** • 1000 VDC minimum
- Isolation Resistance** •  $10^9 \Omega$
- Isolation Capacitance** • 60 pF typical
- Switching Frequency** • 40-160 KHz variable
- MTBF** • >1.1 MHours to MIL-HDBK-217F at 25 °C, GB

#### 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. Replace 'S' in model number with 'D' for DIP package.
2. SIP 48 Vin models, dimension is 0.28 (7.20) max.
3. DIP 48 Vin models, dimension is 0.27 (6.88) max.
4. For 48 V models a 10  $\mu$ F capacitor is required between +Vin and -Vin pins.
5. Operation at no load will not damage unit but it may not meet all specifications.
6. All dimensions in inches (mm).
7. Pin pitch tolerance:  $\pm 0.014$  ( $\pm 0.35$ )
8. Case tolerance:  $\pm 0.02$  ( $\pm 0.5$ )
9. Weight: SIP 0.006 lbs (2.6 g), DIP 0.005 lbs (2.3 g)

Input Voltage <sup>(4)</sup>	Output Voltage	Output Current	Efficiency	Model Number <sup>(1)</sup>
5 VDC	3.3 V	303 mA	75%	IB0503S
	5.0 V	200 mA	78%	IB0505S†
	9.0 V	111 mA	75%	IB0509S
	12.0 V	84 mA	76%	IB0512S
	15.0 V	66 mA	76%	IB0515S
	24.0 V	42 mA	72%	IB0524S
12 VDC	3.3 V	303 mA	74%	IB1203S
	5.0 V	200 mA	74%	IB1205S
	9.0 V	111 mA	75%	IB1209S
	12.0 V	84 mA	77%	IB1212S
	15.0 V	66 mA	78%	IB1215S
	24.0 V	42 mA	75%	IB1224S
24 VDC	3.3 V	303 mA	75%	IB2403S
	5.0 V	200 mA	77%	IB2405S
	9.0 V	111 mA	75%	IB2409S
	12.0 V	84 mA	78%	IB2412S
	15.0 V	66 mA	78%	IB2415S
	24.0 V	42 mA	78%	IB2424S
48 VDC	3.3 V	303 mA	72%	IB4803S
	5.0 V	200 mA	72%	IB4805S
	9.0 V	111 mA	74%	IB4809S
	12.0 V	84 mA	74%	IB4812S
	15.0 V	66 mA	75%	IB4815S
	24.0 V	42 mA	70%	IB4824S

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

### Mechanical Details

