

## ISG Series



- Regulated Single Output
- SMD Package
- Industry Standard Pinout
- 1000 VDC Isolation
- Short Circuit Protection
- MTBF >3.5 Mhrs
- 3 Year Warranty

### Specification

#### Input

- Input Voltage Range • Nominal  $\pm 5\%$
- Input Reverse Voltage Protection • None

#### Output

- Output Voltage • See table
- Minimum Load •  $10\%^{(2)}$
- Line Regulation •  $\pm 0.25\%$
- Load Regulation •  $\pm 1\%$ , 10-100% load change
- Setpoint Accuracy •  $\pm 3\%$  at 100% load
- Ripple & Noise • 100 mV pk-pk 20 MHz bandwidth
- Temperature Coefficient •  $0.03\%/^{\circ}\text{C}$
- Short Circuit Protection • Continuous

#### General

- Efficiency • See table
- Isolation Voltage • 1000 VDC
- Isolation Resistance •  $10^9 \Omega$
- Switching Frequency • 100 kHz typical at nominal input, full load
- MTBF • >3.5 Mhrs to MIL-HDBK-217F at 25 °C, GB

#### Environmental

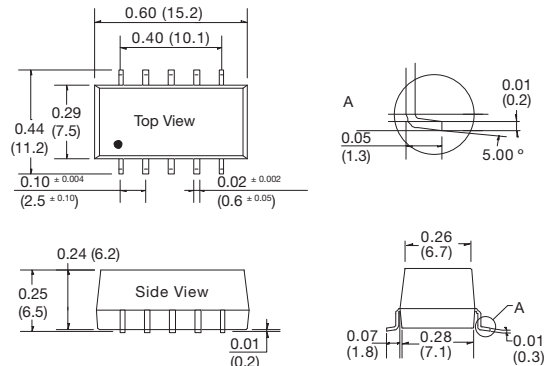
- Operating Temperature •  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ , derate from 100% load at  $70^{\circ}\text{C}$  to 60% load at  $85^{\circ}\text{C}$
- Storage Temperature •  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Case Temperature •  $100^{\circ}\text{C}$  max
- Cooling • Convection-cooled
- Lead Temperature •  $260^{\circ}\text{C}$ , 0.06 in (1.5 mm) from case, 10 s

Input Voltage	Output Voltage	Output Current	Efficiency (typical)	Model Number <sup>(1)</sup>
5 VDC	5 V	150 mA	68%	ISG0505A†^
	12 V	83 mA	69%	ISG0512A†^
	15 V	67 mA	69%	ISG0515A†^
12 VDC	5 V	150 mA	68%	ISG1205A†^
	12 V	83 mA	69%	ISG1212A†^
	15 V	67 mA	70%	ISG1215A†^

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

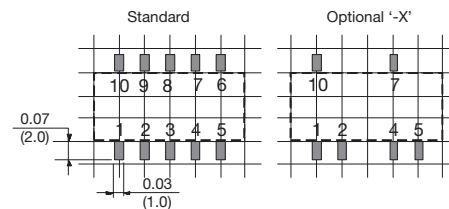
^ Available from Newark. See pages 291-296.

### Mechanical Details



#### Recommended footprint

Top view grid: 0.1 x 0.1 in (2.54 x 2.54 mm)



Pin	Standard	'-X' Version
1	GND	GND
2	V <sub>in</sub>	V <sub>in</sub>
4	0 V	0 V
7	+V <sub>o</sub>	+V <sub>o</sub>
3, 6, 8, 9	N.C.	No Pin
5, 10	N.C.	N.C.

N.C. Not connected

#### Notes

- For optional '-X' pin configuration, add suffix '-X' to part number.
- Operation at no load will not damage device but may not meet all specifications.
- All dimensions in inches (mm)
- Tolerance:  $\pm 0.010$  ( $\pm 0.25$ )
- Weight: 0.003 lbs (1.7 g)
- Pin tolerance:  $\pm 0.004$  ( $\pm 0.10$  mm)