

# 1 Watt

## 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%
- 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  $^{\circ}\text{C}$ , GB

#### Environmental

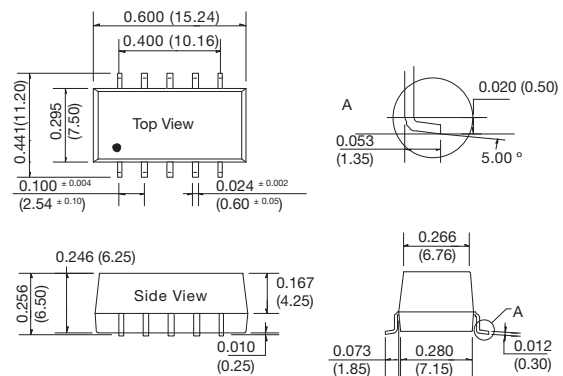
- Operating Temperature •  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ , derate from 100% load at  $70^{\circ}\text{C}$  to 60% load at  $85^{\circ}\text{C}$
- Storage Temperature •  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Case Temperature •  $100^{\circ}\text{C}$  max
- Cooling • Convection-cooled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

| Input Voltage | Output Voltage | Output Current | Efficiency (typ) | 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                    |

1. For optional '-X' pin configuration, add suffix '-X' to part number.

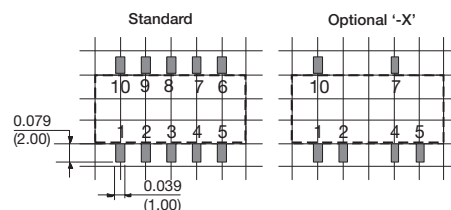
### Mechanical Details

Weight: 0.003 lbs (1.7 g)



#### 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          | Vin      | Vin          |
| 4          | 0 V      | 0 V          |
| 7          | +Vo      | +Vo          |
| 3, 6, 8, 9 | N.C.     | No Pin       |
| 5, 10      | N.C.     | N.C.         |

N.C. Not connected

#### Notes

Dimensions in inches (mm)  
Tolerance:  $\pm 0.010$  ( $\pm 0.25$ )

Pin tolerance:  $\pm 0.004$  ( $\pm 0.10$  mm)