

ISQ Series



- Single Output
- SMD Package
- Industry Standard Pinout
- 6000 VDC Isolation
- -40 °C to +85 °C Operation
- MTBF >3.5 MHrs
- 3 Year Warranty

Specification

Input

- Input Voltage Range • Nominal $\pm 10\%$
 Input Reverse Voltage Protection • None

Output

- Output Voltage • See table
 Minimum Load • $10\%^{(1)}$
 Line Regulation • $1.2\%/1\% \Delta V_{in}$
 Load Regulation • 7.5% max for a 10-100% load change
 Setpoint Accuracy • 100-110% of nominal at 10% load
 Ripple & Noise • 200 mV pk-pk 20 MHz bandwidth
 Temperature Coefficient • $0.03\%/^{\circ}\text{C}$
 Short Circuit Protection • Continuous, automatic recovery

General

- Efficiency • See table
 Isolation Voltage • 6000 VDC
 Isolation Resistance • $10^9 \Omega$
 Isolation Capacitance • 10 pF typical
 Switching Frequency • 50 kHz at nominal input, full load
 MTBF • >3.5 MHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

- Operating Temperature • -40 °C to +85 °C
 Storage Temperature • -55 °C to +125 °C
 Case Temperature • 105 °C max
 Cooling • Convection-cooled
 Lead Temperature • 260 °C, 0.06 in (1.5 mm) from case, 10 s

Notes

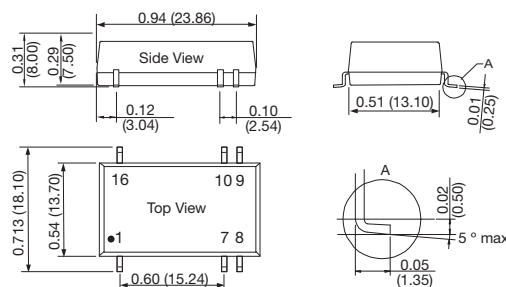
1. Operation at no load will not damage device but may not meet all specifications.

Input Voltage	Output Voltage	Output Current	Efficiency (typ)	Model Number
5 VDC	5.0 V	400 mA	76%	ISQ0505A† [^]
	12.0 V	167 mA	79%	ISQ0512A† [^]
	15.0 V	133 mA	78%	ISQ0515A† [^]
12 VDC	5.0 V	400 mA	76%	ISQ1205A† [^]
	12.0 V	167 mA	80%	ISQ1212A† [^]
	15.0 V	133 mA	79%	ISQ1215A† [^]
24 VDC	5.0 V	400 mA	77%	ISQ2405A† [^]
	12.0 V	167 mA	80%	ISQ2412A† [^]
	15.0 V	133 mA	78%	ISQ2415A† [^]

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

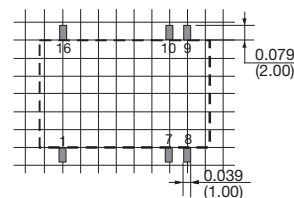
[^] Available from Newark. See pages 291-296.

Mechanical Details



Recommended footprint

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



Pin	Function
1	-Vin
7	N.C.
8	N.C.
9	+Vo
10	-Vo
16	+Vin

N.C. Not connected

Notes

1. All dimensions in inches (mm)
2. Tolerance: ± 0.010 (± 0.25)
3. Weight: 0.008 lbs (3.8 g)
4. Pin tolerance: ± 0.004 (± 0.10 mm)