0.25 Watt
IK Series

- Single Output
- SIP or DIP Package
- 1000 VDC Isolation
- Optional 3000 VDC Isolation
- Small Package Sizes
- –40 °C to +85 °C Operation
- 3 Year Warranty

Specification

Input

Input Voltage Range	• Nominal ±10%
Input Reflected Ripple Current	• 20 mA pk-pk through 12 µH inductor 5Hz to 20 MHz
Input Reverse Voltage Protection	• None

Output

Output Voltage	• See table
Minimum Load	• None[4]
Line Regulation	• 1.2%/1% Δ Vin
Load Regulation	• 10% 20-100% load change (3.3 V models ±20%)
Setpoint Accuracy	• ±3%
Ripple & Noise	• 100 mV pk-pk max, 20 MHz bandwidth
Temperature Coefficient	• 0.02%/°C
Maximum Capacitive Load	• 100 µF

General

Efficiency	• See table
Isolation Voltage	• 1000 VDC minimum[2]
Isolation Resistance	• 10^9 Ω
Isolation Capacitance	• 60 pF typical
Switching Frequency	• Variable, 80 KHz typical
MTBF	• >1.1 MHrs to MIL-HDBK-217F at 25 °C, GB

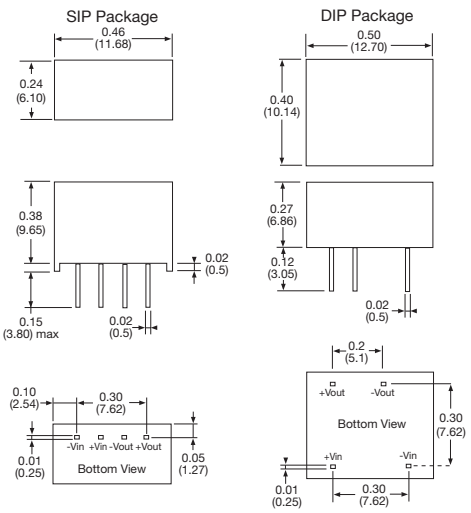
Environmental

Operating Temperature	• -40 °C to +85 °C
Storage Temperature	• -40 °C to +125 °C
Case Temperature	• 100 °C max
Cooling	• Convection-cooled

Input Voltage	No Load Input Current	Output Voltage	Output Current	Efficiency	Model Number[1,2]
5 VDC	20 mA	3.3 V	75.70 mA	66%	IK0503SA†^
	20 mA	5.0 V	50.00 mA	66%	IK0505SA†^
	20 mA	7.2 V	34.72 mA	66%	IK0507SA
	20 mA	9.0 V	27.77 mA	68%	IK0509SA
	20 mA	12.0 V	20.83 mA	68%	IK0512SA†^
	20 mA	15.0 V	16.67 mA	68%	IK0515SA†^
	20 mA	18.0 V	13.88 mA	68%	IK0518SA
	20 mA	24.0 V	10.41 mA	70%	IK0524SA†^
12 VDC	15 mA	3.3 V	75.70 mA	65%	IK1203SA†^
	15 mA	5.0 V	50.00 mA	65%	IK1205SA†^
	15 mA	7.2 V	34.72 mA	68%	IK1207SA
	15 mA	9.0 V	27.77 mA	64%	IK1209SA
	15 mA	12.0 V	20.83 mA	62%	IK1212SA†^
	15 mA	15.0 V	16.67 mA	67%	IK1215SA†^
	15 mA	18.0 V	13.88 mA	67%	IK1218SA
	15 mA	24.0 V	10.41 mA	54%	IK1224SA†^
24 VDC	8 mA	3.3 V	75.70 mA	60%	IK2403SA
	8 mA	5.0 V	50.00 mA	62%	IK2405SA
	8 mA	7.2 V	34.72 mA	61%	IK2407SA
	8 mA	9.0 V	27.77 mA	62%	IK2409SA
	8 mA	12.0 V	20.83 mA	56%	IK2412SA
	8 mA	15.0 V	16.67 mA	56%	IK2415SA
	8 mA	18.0 V	13.88 mA	55%	IK2418SA
	8 mA	24.0 V	10.41 mA	59%	IK2424SA
48 VDC[3]	5 mA	3.3 V	75.70 mA	55%	IK4803SA
	5 mA	5.0 V	50.00 mA	57%	IK4805SA
	5 mA	7.2 V	34.72 mA	57%	IK4807SA
	5 mA	9.0 V	27.77 mA	57%	IK4809SA
	5 mA	12.0 V	20.83 mA	53%	IK4812SA
	5 mA	15.0 V	16.67 mA	53%	IK4815SA
	5 mA	18.0 V	13.88 mA	53%	IK4818SA
	5 mA	24.0 V	10.41 mA	50%	IK4824SA

† Available from Farnell & element14. See pages 284-290.
^ Available from Newark. See pages 291-296.

Mechanical Details



Notes

1. For DIP package, replace 'S' in model number with 'D'.
2. Add suffix '-H' to model number for 3000 VDC isolation.
3. 48 V input not available with DIP package.
4. Operation at no load will not damage unit but it may not meet all specifications.
5. All dimensions in inches (mm).
6. Pin pitch tolerance: ±0.014 (±0.35)
7. Case tolerance: ±0.02 (±0.5)
8. Weight: SIP 0.003 lbs (1.4 g), DIP 0.004 lbs (1.8 g)