

IK Series• 0.25Watt

FEATURES

0.25 Watt
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



SPECIFICATIONS

INPUT

Parameter	Value
Input Voltage Range	Nominal $\pm 10\%$
Input Reflected Ripple Current	20 mA pk-pk through 12 μ H inductor 5Hz to 20 MHz
Input Reverse Voltage Protection	None

OUTPUT

Parameter	Value
Output Voltage	See table
Minimum Load	None(4)
Line Regulation	1.2%/1% ΔV_{in}
Load Regulation	10% 20-100% load change (3.3 V models $\pm 20\%$)
Setpoint Accuracy	$\pm 3\%$
Ripple & Noise	100 mV pk-pk max, 20 MHz bandwidth
Temperature Coefficient	0.02%/°C
Maximum Capacitive Load	100 μ F

GENERAL

Parameter	Value
Efficiency	See table
Isolation Voltage	1000 VDC minimum(2)
Isolation Resistance	109 Ω
Isolation Capacitance	60 pF typical
Switching Frequency	Variable, 80 KHz typical
MTBF	>1.1 Mhrs to MIL-HDBK-217F at 25 °C, GB

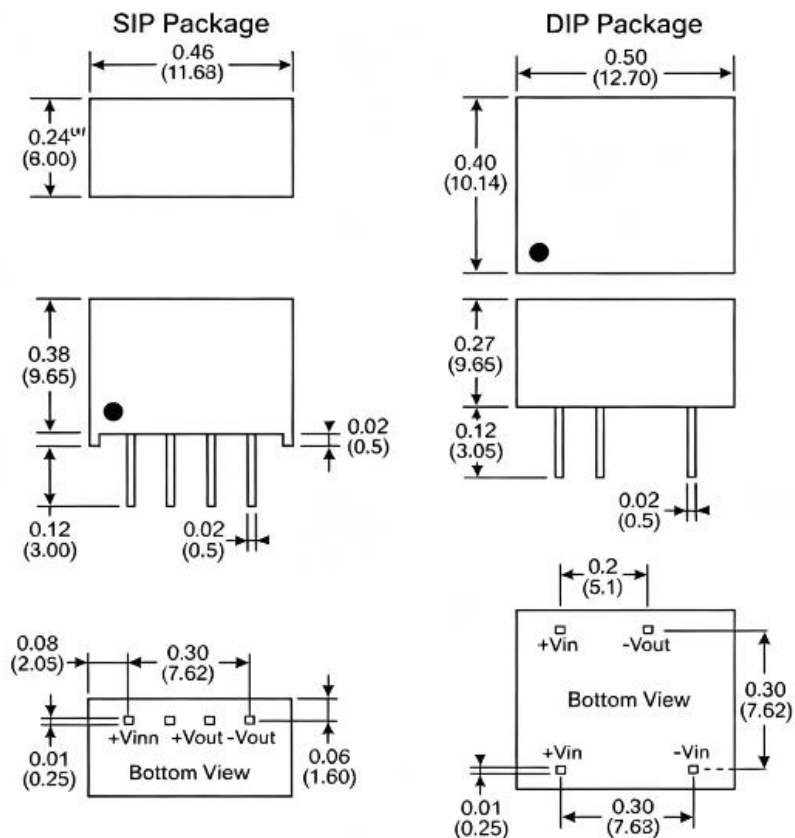
ENVIRONMENTAL

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

SELECTION GUIDE

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

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)