

Fixed Input Isolated, Regulated Series



IF_RN-1W & IF_RT-1W Series

RoHS

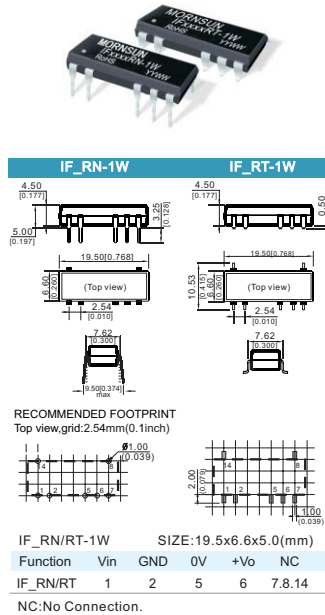
FIXED INPUT, 3000VDC ISOLATED & REGULATED, SINGLE OUTPUT, 1W, DC-DC CONVERTER

FEATURES

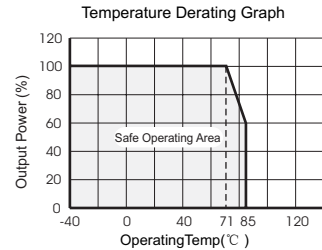
- Temperature Range: -40°C ~ +85°C
- Small Footprint, Very thin package
- 3KVDC Isolation
- High Power Density
- No Heat sink Required
- Industry Standard Pinout
- Compatible with DCP01 Series
- Short circuit protection

SPECIFICATION

Line regulation: For Vin change of $\pm 5\%$ $\pm 0.25\%$ (max)
 Load regulation: 10% to 100% load $\pm 1\%$ (max)
 Output voltage accuracy: 100% full load $\pm 0.03\%$ / °C (max)
 Ripple: 20MHz Bandwidth 20mVp-p (max)
 Noise: 20MHz Bandwidth 75mVp-p (max)
 Switching frequency: Full load, nominal input 100KHz (typ)
 Storage temperature -55°C ~ +125°C
 Isolation resistance 1000M Ω (min)
 MTBF 3,500,000 hours (min)
 Cooling Free air convection



TYPICAL TEMPERATURE CURVE



Part Number	Vin (VDC)	Input Range (VDC)	Vout (VDC)	Iout (mA)	Eff(TYP) %
IF0505RN-1W	5	4.75-5.25	5	200	70
IF0505RT-1W	5	4.75-5.25	5	200	70
IF1205RN-1W	12	10.8-13.2	5	200	72
IF1205RT-1W	12	10.8-13.2	5	200	72

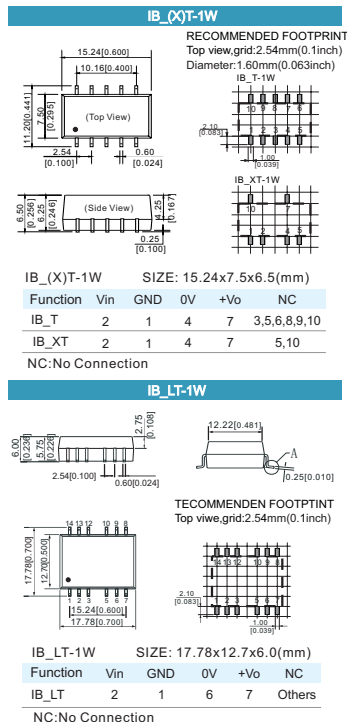
IB_LT-1W & IB_(X)T-1W Series

RoHS

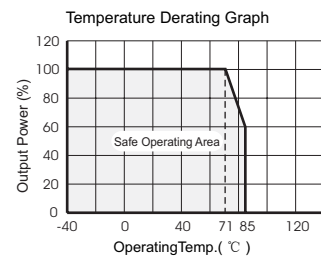
FIXED INPUT, 1000VDC ISOLATED & REGULATED, SINGLE OUTPUT, 1W, SMD PACKAGE DC-DC CONVERTER

FEATURES

- Temperature Range: -40°C ~ +85°C
- Small Footprint
- SMD Package
- 1KVDC Isolation
- High Power Density
- Short Circuit Protection
- Internal SMD Construction
- Industry Standard Pinout
- UL94-V0 Package



TYPICAL TEMPERATURE CURVE



Part Number	Vin (VDC)	Input Range (VDC)	Vout (VDC)	Iout (mA)	Eff(TYP) %
IB0505LT-W75	5	4.75-5.25	5	150	69
IB0512LT-1W	12	11.4-12.6	5	83	71
IB0515LT-1W	15	14.2-15.2	5	67	72
IB1205LT-W75	12	11.4-12.6	5	150	69
IB1212LT-1W	12	11.4-12.6	5	83	71
IB1215LT-1W	15	14.2-15.2	5	67	72
IB1505LT-W75	15	14.25-15.75	5	150	69
IB1512LT-1W	12	11.4-12.6	5	83	71
IB1515LT-1W	15	14.2-15.2	5	67	72
IB2405LT-W75	24	22.8-25.2	5	150	69
IB2412LT-1W	12	11.4-12.6	5	83	71
IB2415LT-1W	15	14.2-15.2	5	67	72
IB0505(X)T-W75	5	4.75-5.25	5	150	68
IB0512(X)T-1W	12	11.4-12.6	5	83	69
IB0515(X)T-1W	15	14.2-15.2	5	67	69
IB1205(X)T-W75	12	11.4-12.6	5	150	68
IB1212(X)T-1W	12	11.4-12.6	5	83	69
IB1215(X)T-1W	15	14.2-15.2	5	67	70

SPECIFICATIONS

Line regulation: For Vin change of $\pm 5\%$ (IB_LT) $\pm 0.3\%$ (max)
 For Vin change of $\pm 5\%$ (IB_T) $\pm 0.25\%$ (max)
 Load regulation: 10% to 100% load $\pm 1\%$ (max)
 Temperature drift: 100% full load $\pm 0.03\%$ / °C (max)
 Ripple: 20MHz Bandwidth 20mVp-p (max)
 Noise: 20MHz Bandwidth (IB_(X)T) 100mVp-p (max)
 20MHz Bandwidth (IB_LT) 150mVp-p (max)
 Switching frequency: Full load, nominal input 100KHz (typ)
 Storage temperature -55°C ~ +125°C
 Isolation resistance 1000M Ω (min)
 MTBF 3,500,000 hours (min)
 Cooling Free air convection

AC-DC SERIES

DC-DC FIXED INPUT ISOLATED/UNREGULATED

DC-DC FIXED INPUT ISOLATED/REGULATED

DC-DC WIDE INPUT ISOLATED/REGULATED

DC-DC ULTRA-WIDE INPUT ISOLATED/REGULATED

DC-DC WIDE INPUT NON-ISOLATED/REGULATED

LED DRIVER

IGBT DRIVER

ISOLATION AMPLIFIER MODULE



Fixed Input Isolated, Regulated Series

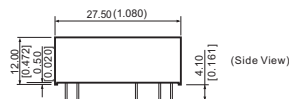
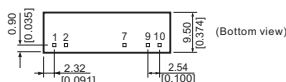
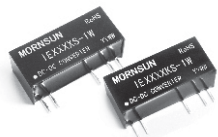
IA_KS/S-1W & IA_KS/S-2W & IE_KS/S-1W Series

FIXED INPUT, 1000VDC/3000VDC ISOLATED & REGULATED, DUAL OUTPUT, 1W/2W, DC-DC CONVERTER

RoHS

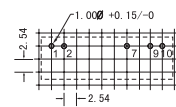
FEATURES

- Temperature Range: -40°C ~ +85°C
- Small Footprint; SIP Package
- Isolation: 1000VDC (IA Series)
3000VDC (IE Series)
- High Power Density
- Internal SMD Construction
- Industry Standard Pinout



RECOMMENDED FOOTPRINT

Top view, grid: 2.54mm (0.1inch)



SIZE: 27.5x9.5x12.0(mm)

Function	Vin	GND	+Vo	-Vo	0V
SIP	1	2	7	9	10

SPECIFICATIONS

- Line regulation: For Vin change of $\pm 5\%$ $\pm 0.25\%$ (max)
 Load regulation: 10% to 100% full load..... $\pm 1\%$ (max)
 Temperature drift: 100% full load..... $\pm 0.03\%/^{\circ}\text{C}$ (max)
 Ripple: 20MHz Bandwidth(1W).....20mVp-p(max)
 20MHz Bandwidth(2W).....30mVp-p(max)
 Noise: 20MHz Bandwidth(1W).....100mVp-p(max)
 20MHz Bandwidth(2W).....150mVp-p(max)
 Switching frequency: Full load, nominal input.....100KHz (typ)
 Storage temp. Range.....-55°C ~ +125°C
 Isolation resistance.....1000M Ω (min)
 MTBF.....3,500,000 hours (min)
 Cooling.....Free air convection
 Short circuit protection: IA/IE_S series.....Continuous

Part Number	Vin (VDC)	Input Range (VDC)	Vout (VDC)	Iout (mA)	Eff(TYP) %
IA0505S-1W	5	4.75-5.25	± 5	± 100	69
IA0505KS-1W			± 5	± 100	54
IA0512KS-1W			± 12	± 42	63
IA0515KS-1W	12	11.4-12.6	± 15	± 33	65
IA1205S-1W			± 5	± 100	72
IA1205KS-1W			± 5	± 100	56
IA1212KS-1W	24	22.8-25.2	± 12	± 42	65
IA1215KS-1W			± 15	± 33	66
IA2405S-1W			± 5	± 100	72
IA2405KS-1W	5	4.75-5.25	± 5	± 100	54
IA2412KS-1W			± 12	± 42	64
IA2415KS-1W			± 15	± 33	66
IA0505S-1W5	12	11.4-12.6	± 5	± 150	69
IA0512KS-2W			± 12	± 83	64
IA0515KS-2W			± 15	± 67	65
IA1205S-1W5	24	22.8-25.2	± 5	± 150	70
IA1212KS-2W			± 12	± 83	65
IA1215KS-2W			± 15	± 67	68
IA2405S-1W5	5	4.75-5.25	± 5	± 150	70
IA2412KS-2W			± 12	± 83	67
IA2415KS-2W			± 15	± 67	69
IE0505S-1W	12	11.4-12.6	± 5	± 100	69
IE0505KS-1W			± 5	± 100	54
IE0512KS-1W			± 12	± 42	62
IE0515KS-1W	24	22.8-25.2	± 15	± 33	64
IE1205S-1W			± 5	± 100	72
IE1205KS-1W			± 5	± 100	54
IE1212KS-1W	5	4.75-5.25	± 12	± 42	63
IE1215KS-1W			± 15	± 33	64
IE2405S-1W			± 5	± 100	72
IE2405KS-1W	12	11.4-12.6	± 5	± 100	54
IE2412KS-1W			± 12	± 42	63
IE2415KS-1W			± 15	± 33	64
IE2405S-1W	24	22.8-25.2	± 5	± 100	72
IE2412KS-1W			± 12	± 42	63
IE2415KS-1W			± 15	± 33	64

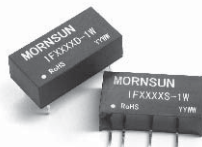
IF_S/D-1W & IF_S-2W IB_LS/LD-1W & IB_S-2W Series

FIXED INPUT, 1000VDC/3000VDC ISOLATED & REGULATED, SINGLE OUTPUT, 1W/2W, DC-DC CONVERTER

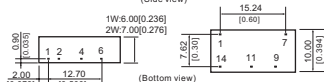
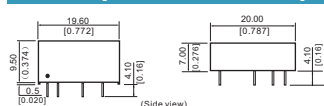
RoHS

FEATURES

- Operating Temperature: -40°C ~ +85°C
- Small Footprint; SIP/DIP Package
- 3KVDC Isolation (IF series)
1KVDC Isolation (IB series)
- High Power Density
- Internal SMD Construction
- Short Circuit Protection (IFxx05S/D-1W except)

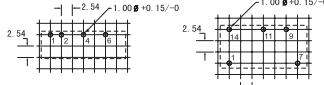


SIP Package DIP Package



RECOMMENDED FOOTPRINT

Top view, grid: 2.54mm (0.1inch)



SIP 1W: SIZE: 19.6x6.0x10.0(mm)
2W: SIZE: 19.6x7.0x10.0(mm)
DIP SIZE: 20.0x10x7.0(mm)

Function	Vin	GND	0V	+Vo	NC
SIP	1	2	4	6	-
DIP	14	1	11	9	7

Note: NC No Connection

SPECIFICATIONS

- Line regulation: For Vin change of $\pm 5\%$ (1W)..... $\pm 0.25\%$ (max)
 For Vin change of $\pm 5\%$ (2W)..... $\pm 0.5\%$ (max)
 Load regulation: 10% to 100% load..... $\pm 1\%$ (max)
 10% to 100% load (IB_S-2W series)..... $\pm 1.5\%$ (max)
 Temperature drift: 100% full load..... $\pm 0.03\%/^{\circ}\text{C}$ (max)
 Ripple: 20MHz Bandwidth(1W).....20mVp-p(max)
 20MHz Bandwidth(2W).....30mVp-p(max)
 Noise: 20MHz Bandwidth(1W).....100mVp-p(max)
 20MHz Bandwidth(2W).....150mVp-p(max)
 Switching frequency: Full load, nominal input.....100KHz (typ)
 Storage temp. Range.....-55°C ~ +125°C
 Isolation resistance.....1000M Ω (min)
 MTBF.....3,500,000 hours (min)
 Cooling.....Free air convection

IB_LS/LD-1W Series

Part Number	Vin (VDC)	Input Range (VDC)	Vout (VDC)	Iout (mA)	Eff(TYP) %
IB0505LS/LD-W75	5	4.75-5.25	5	150	68
IB0512LS/LD-1W			12	83	70
IB0515LS/LD-1W			15	67	73
IB1205LS/LD-W75	12	11.4-12.6	5	150	68
IB1212LS/LD-1W			12	83	71
IB1215LS/LD-1W			15	67	73
IB2405LS/LD-W75	24	22.8-25.2	5	150	68
IB2412LS/LD-1W			12	83	73
IB2415LS/LD-1W			15	67	75

IF_S/D-1W Series

Part Number	Vin (VDC)	Input Range (VDC)	Vout (VDC)	Iout (mA)	Eff(TYP) %
IF0505S/D-W75	5	4.75-5.25	5	150	68
IF0505S/D-1W			5	200	66
IF0512S/D-1W			12	83	72
IF0515S/D-1W	12	11.4-12.6	15	67	73
IF1205S/D-W75			5	150	68
IF1205S/D-1W			5	200	67
IF1212S/D-1W	24	22.8-25.2	12	83	73
IF1215S/D-1W			15	67	74
IF2405S/D-W75			5	150	68
IF2405S/D-1W	5	4.75-5.25	5	200	67
IF2412S/D-1W			12	83	73
IF2415S/D-1W			15	67	74

IB_S-2W & IF_S-2W Series

Part Number	Vin (VDC)	Input Range (VDC)	Vout (VDC)	Iout (mA)	Eff(TYP) %
IB0505S-2W	5	4.75-5.25	5	400	70
IB1205S-2W	12	11.4-12.6	5	400	70
IB2405S-2W	24	22.8-25.2	5	400	71
*IF0505S-2W	5	4.75-5.25	5	400	69
*IF1205S-2W	12	11.4-12.6	5	400	69
*IF2405S-2W	24	22.8-25.2	5	400	70

Note: *** Designing