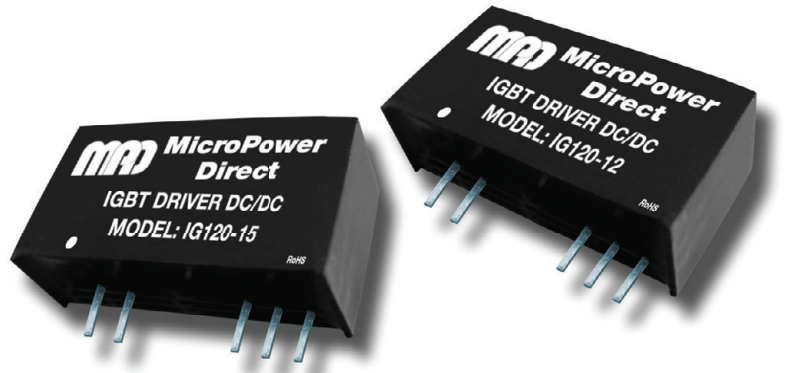


IG120 Series

High Isolation IGBT Driver DC/DC Converters



Key Features:

- Operates With xx962 Drivers
- Independent Outputs
- EN 60950 Approved
- 3,000 VAC Isolation
- Miniature SIP Case
- >3.5 MHour MTBF
- Seven Standard Models
- **LOW COST!!**

RoHS



Electrical Specifications

Specifications typical @ +25°C, nominal input voltage & rated output current, unless otherwise noted. Specifications subject to change without notice.

Input

Parameter	Conditions	Min.	Typ.	Max.	Units
Supply Voltage Range		See Model Selection Guide			
Input Filter		Internal Capacitor			

Output

Parameter	Conditions	Min.	Typ.	Max.	Units
Line Regulation	For VIN Change of 1%		±1.2	±1.5	%
Load Regulation	See Note 1		6.3	15	%
Ripple & Noise (20 MHz)			100	200	mV P - P
Efficiency			80		%
Temperature Coefficient				±0.03	%/°C
Output Short Circuit		Continuous (Autorecovery)			

General

Parameter	Conditions	Min.	Typ.	Max.	Units
Isolation Voltage	60 Seconds	3,000			VAC
Isolation Resistance		1,000			MΩ
Isolation Capacitance, 1 kHz/0.1V			6.6		pF
Switching Frequency			100	300	kHz

EMI Characteristics

Parameter	Standard		Level	
Radiated Emissions	See Page 3	EN 55022	Class B	
Conducted Emissions	See Page 3	EN 55022	Class B	
ESD		EN 61000-4-2	Criteria B; ±8 kV Contact	

Environmental

Parameter	Conditions	Min.	Typ.	Max.	Units
Operating Temperature Range	Ambient	-40	+25	+105	°C
Storage Temperature Range		-50		+125	°C
Cooling		Free Air Convection			
Humidity	RH, Non-condensing			95	%

Physical

Case Size	0.768 x 0.386 x 0.492 Inches (19.50 x 9.80 x 12.50 mm)				
Case Material	Non-Conductive Black Plastic (UL94-V0)				
Weight	0.152 Oz (4.3g)				

Reliability Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
MTBF	MIL HDBK 217F, 25°C, Gnd Benign	3.5			MHours

Absolute Maximum Ratings

Parameter	Conditions	Min.	Typ.	Max.	Units
Max Supply Voltage (1 Sec)	IG120-12	-0.7		13	VDC
	IG120-12W	-0.7		15	
	IG100-9, IG100-9D	-0.7		16	
	IG120-15, IG136-15	-0.7		16	
	IG120-24	-0.7		26	
Lead Temperature	1.5 mm From Case For 10 Sec			300	°C

Caution: Exceeding Absolute Maximum Ratings may damage the module. These are not continuous operating ratings.

MicroPower Direct

292 Page Street
Suite D
Stoughton, MA 02072
USA

T: (781) 344-8226
F: (781) 344-8481
E: sales@micropowerdirect.com
W: www.micropowerdirect.com



www.micropowerdirect.com

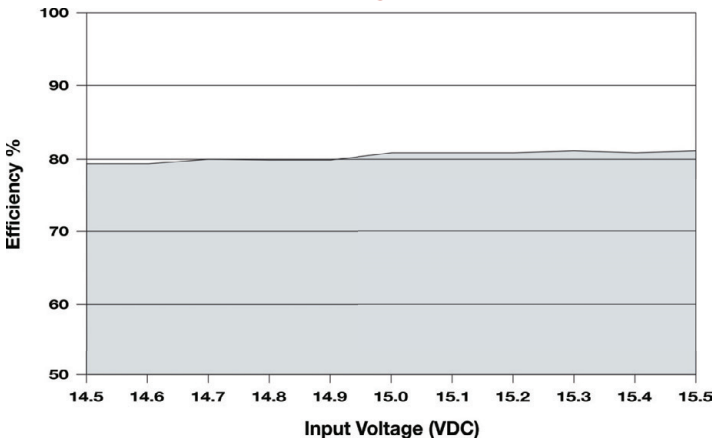
Model Number	Input (Supply)		Output 1					Output 2					Load Regulation (%)		Maximum Capacitive Load (µF)	Fuse Rating Slow-Blow (mA)
	Voltage (VDC)		Voltage (VDC)			Current (mA Max)	Current (mA, Min)	Voltage (VDC)			Current (mA Max)	Current (mA, Min)	Min.	Max.		
	Nom.	Range	Min.	Nom.	Max.			Min.	Nom.	Max.						
IG100-09	15	14.5 - 15.5	8.0	9.0	10.0	111.0	0.0						8.3	15	220	200
IG100-09D	15	14.5 - 15.5	8.0	9.0	10.0	55.0	0.0	-8.0	-9.0	-10.0	55.0	0.0	8.3	15	220	200
IG120-12	12	11.6 - 12.4	14.0	15.0	16.0	80.0	0.0	-7.0	-8.7	-10.0	40.0	0.0	6.3	15	220	400
IG120-12W	12	9.0 - 15.0	14.0	15.0	16.0	100.0	0.0	-7.0	-8.0	-9.0	80.0	0.0	6.3	15	220	500
IG120-15	15	14.5 - 15.5	14.0	15.0	16.0	80.0	0.0	-7.0	-8.7	-10.0	40.0	0.0	6.3	15	220	300
IG136-15	15	14.5 - 15.5	16.5	17.0	18.0	80.0	0.0	-7.0	-8.7	-10.0	40.0	0.0	6.3	15	220	400
IG120-24	24	23.3 - 24.7	14.0	15.0	16.0	80.0	0.0	-7.0	-8.7	-10.0	40.0	0.0	6.3	15	220	200

Notes:

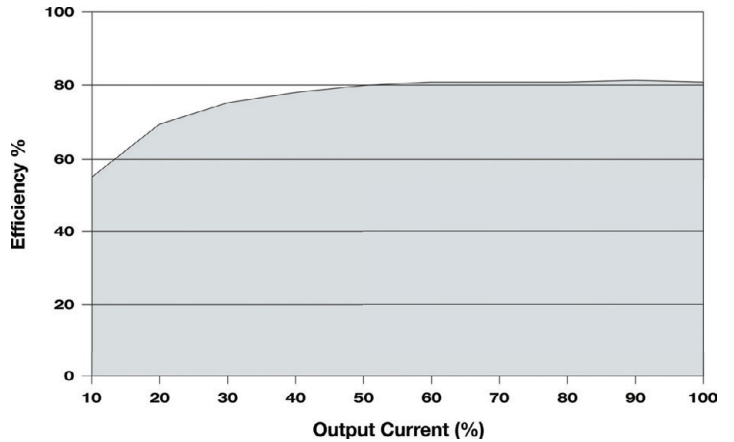
1. Load regulation is measured from 10% load to full load. Load regulation is specified for the primary output (output 1). The load regulation of output 2 may vary slightly. The typical load regulation for IG100-9 and IG100-9D is 8.3%.
2. Operation at no-load will not damage these units. However, they may not meet all specifications.
3. If output 2 is not used, it should be left open.
4. It is recommended that a fuse be used on the input of a power supply for protection. See the Model Selection table above for the correct rating.

The IG100 series is designed to operate with the IGD962 IGBT driver. Contact the factory for more information

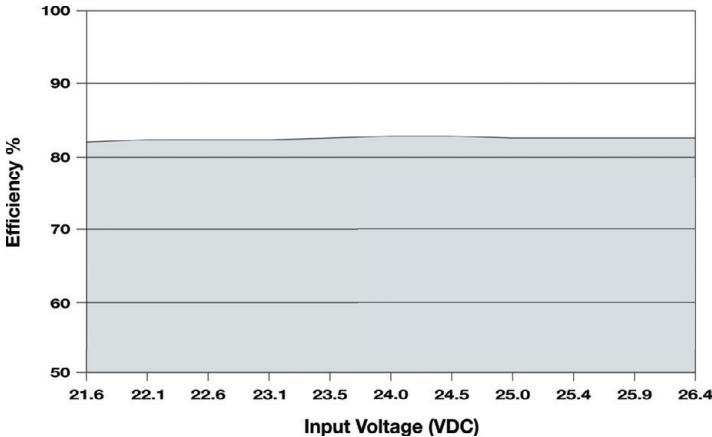
Efficiency vs Input Voltage 15 VDC Input



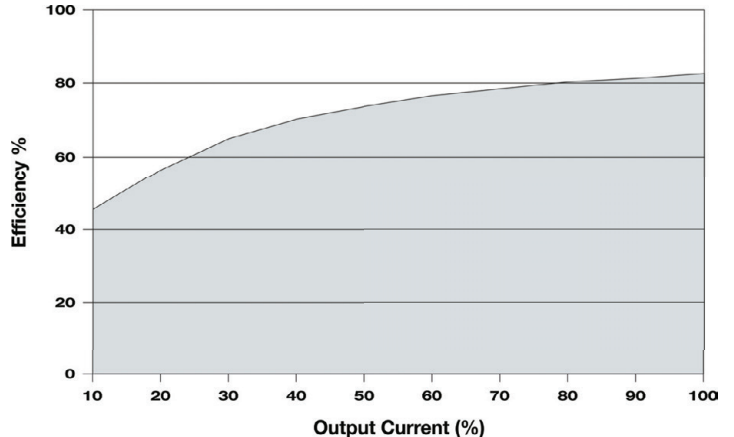
Efficiency vs Output Load 15 VDC Input



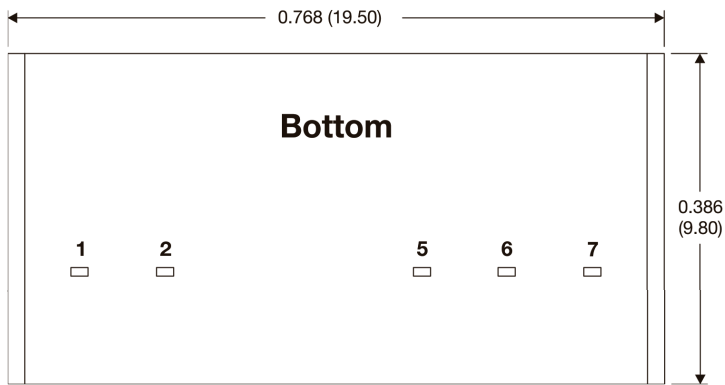
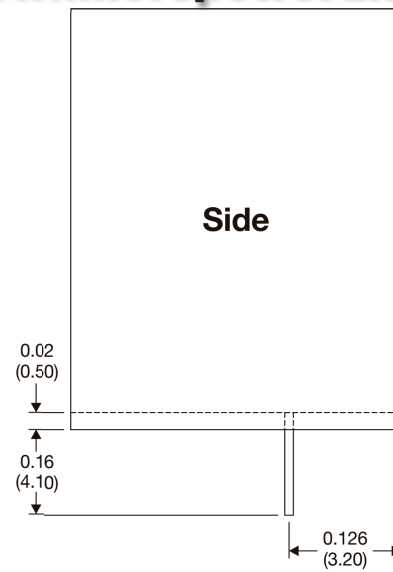
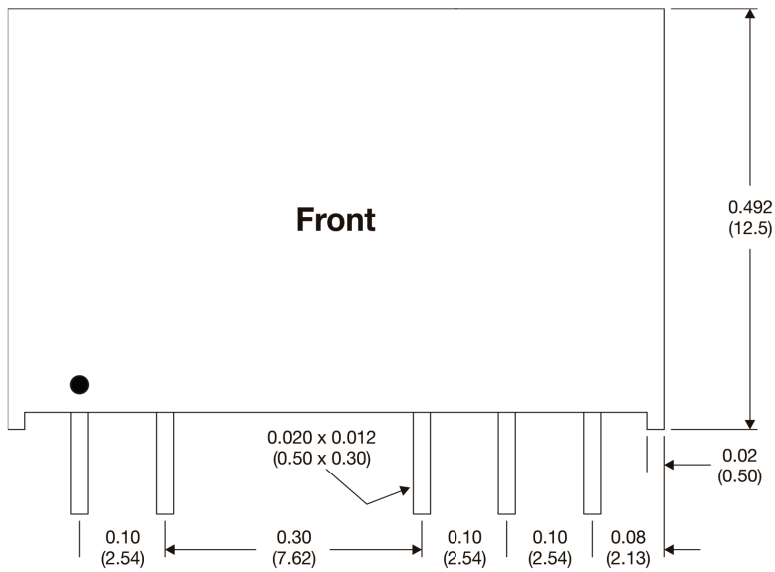
Efficiency vs Input Voltage 24 VDC Input



Efficiency vs Output Load 24 VDC Input



Mechanical Dimensions



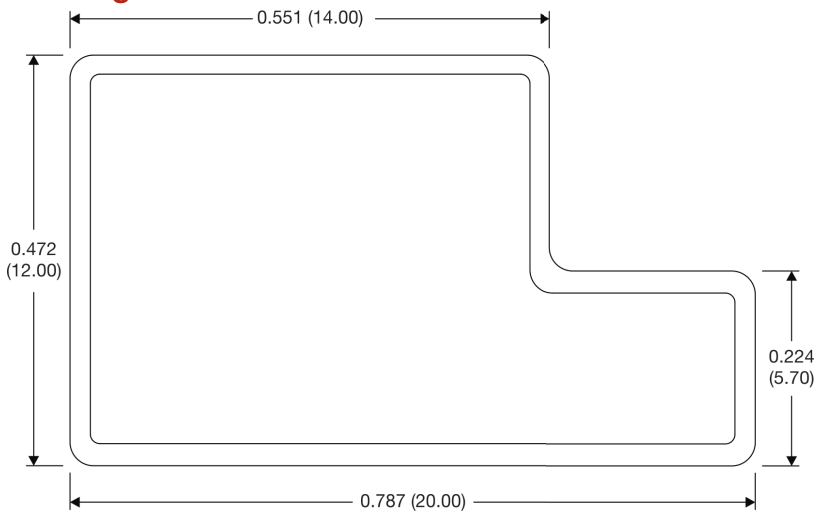
Pin Connections

Pin	Function
1	+Vin
2	Gnd
5	Vout 2
6	Common
7	Vout 1

Notes:

- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.02 (±0.50)
- Pin 5 on the **IG100-09** has no connection

Packing Tube Dimensions



Notes:

- Tube length equals 20.866 (530), unit quantity equals 25 pcs.
- Tube length equals 8.661 (220), unit quantity equals 10 pcs.
- All dimensions are typical in inches (mm)
- Tolerance x.xx = ±0.02 (±0.50)



MicroPower Direct
We Power Your Success - For Less!