



Size: 0.77in x 0.39in x 0.49in  
(19.5mm x 9.8mm x 12.5mm)

**FEATURES**

- Performance Optimized for IGBT/SiC
- Bipolar Asymmetric Unregulated Output
- SIP-7 Package
- 6000VDC Isolation
- Low Coupling Isolation Capacitance (Cio)
- Short Circuit Protection
- Reinforced Insulation, Rated for 250VAC Working Voltage
- Dual Outputs
- UL62368 Certification

**APPLICATIONS**

- Motor Drivers
- Solar Inverter
- Industrial
- Induction Heating
- Robotics
- Telecom

**DESCRIPTION**

The IGBT2 series of IGBT SiC gate drivers offers 2 watts of output power in an industry standard 0.77" x 0.39" x 0.49" SIP-7 package. This series consists of dual output models with performance optimized for IGBT/SiC. Each model features 6000VDC isolation, reinforced insulation, and low coupling isolation capacitance. This series also features protection against short circuit conditions and meets UL62368 standard.

**MODEL SELECTION TABLE**

Model Number	Input Voltage Range	Output Voltage		Output Current (Full Load)		Efficiency	Output Power
IGBT2-121503P	12V±10%	+15	-3	+110mA	-100mA	79%	2W
IGBT2-121505P		+15	-5	+100mA	-100mA	78%	
IGBT2-121805P		+18	-5	+90mA	-90mA	78%	
IGBT2-122035P		+20	-3.5	+90mA	-80mA	79%	
IGBT2-122005P		+20	-5	+80mA	-80mA	80%	
IGBT2-121509P		+15	-9	+100mA	-60mA	81%	
IGBT2-121709P		+17	-9	+90mA	-50mA	78%	
IGBT2-121809P		+18	-9	+90mA	-50mA	79%	
IGBT2-1215DP		+15	-15	+67mA	-67mA	80%	
IGBT2-151503P		15V±10%	+15	-3	+110mA	-100mA	
IGBT2-151505P	+15		-5	+100mA	-100mA	79%	
IGBT2-151805P	+18		-5	+90mA	-90mA	81%	
IGBT2-152035P	+20		-3.5	+90mA	-80mA	78%	
IGBT2-152005P	+20		-5	+80mA	-80mA	80%	
IGBT2-151509P	+15		-9	+100mA	-60mA	79%	
IGBT2-151709P	+17		-9	+90mA	-50mA	81%	
IGBT2-151809P	+18		-9	+90mA	-50mA	78%	
IGBT2-1515DP	+15		-15	+67mA	-67mA	77%	
IGBT2-241503P	24V±10%		+15	-3	+110mA	-100mA	80%
IGBT2-241505P		+15	-5	+100mA	-100mA	78%	
IGBT2-241805P		+18	-5	+90mA	-90mA	79%	
IGBT2-242035P		+20	-3.5	+90mA	-80mA	78%	
IGBT2-242005P		+20	-5	+80mA	-80mA	80%	
IGBT2-241509P		+15	-9	+100mA	-60mA	79%	
IGBT2-241709P		+17	-9	+90mA	-50mA	80%	
IGBT2-241809P		+18	-9	+90mA	-50mA	78%	
IGBT2-2412DP		+12	-12	+83mA	-83mA	78%	
IGBT2-1515DP		+15	-15	+67mA	-67mA	78%	

**SPECIFICATIONS**

All specifications are valid at Nominal Input Voltage, Full Load, and 25°C after warm-up time unless otherwise noted.  
 We reserve the right to change specifications based on technological advances.

SPECIFICATION	TEST CONDITIONS	Min	Typ	Max	Unit
<b>INPUT SPECIFICATIONS</b>					
Input Voltage	Nominal		12/15/24		V
Input Voltage Range	Low Line (LL)/High Line (HL)	-10		+10	%
No Load Current	Vin=12V		43		mA
	Vin=15V		35		
	Vin=24V		19		
Full Load Current	Vin=12V		217		mA
	Vin=15V		172		
	Vin=24V		108		
<b>OUTPUT SPECIFICATIONS</b>					
Output Voltage		See Table			
Voltage Accuracy (Vo+ and Vo-)	Vo+ = 12V, 15V, 17V or 18V	-5		+5	%
	Vo+ = 20V	-8		+2	
Line Regulation	Vin=±10% HL to LL @Full Load		1.2		%
Load Regulation	10% to 100% Load		5		%
Output Power		See Table			
Output Current		See Table			
Minimum Load			0		%
Capacitive Load <sup>(1)</sup>	C-load		100		µF
Ripple & Noise <sup>(2)</sup>	@20MHz Bandwidth		30	50	mVp-p
Start-Up Time	Full Load, No Cap			100	ms
Operating Frequency	100% Load Nominal Input	20	70	130	KHz
<b>PROTECTION</b>					
Short Circuit Protection		Continuous, Automatic Recovery			
<b>ENVIRONMENTAL SPECIFICATIONS</b>					
Operating Temperature	Full Load Derating @85°C	-40		100	°C
Storage Temperature		-55		125	°C
Max Case Temperature				115	°C
Relative Humidity		5		95	%RH
Vibration		MIL-STD-202			
MTBF	MIL-HDBK-217F, 20LFM, 25°C		13980K		Hours
<b>GENERAL SPECIFICATIONS</b>					
Efficiency		See Table			
Isolation Voltage		6000			VDC
Isolation Resistance		10			GΩ
Isolation Capacitance <sup>(3)</sup>		5	8		pF
<b>PHYSICAL SPECIFICATIONS</b>					
Weight		0.14oz (4g) Typ.			
Dimensions (L x W x H)		0.77in x 0.39in x 0.49in (19.5mm x 9.8mm x 12.5mm)			
Case Material		Black Plastic (UL94 V-0)			
Potting Material		Silicone (UL94 V-0)			
<b>SAFETY CHARACTERISTICS</b>					
Safety Approvals		IEC62368/EN62368/UL62368 Working Voltage w.r.t. IEC62368 Hi-Pot, 60 sec (qualification) Hi-Pot, 2 sec (production) EN55032/CISPR32		Pollution Degree 2 250Vrms 6.2KVdc 7.4KVdc Class A/B	
EMI <sup>(5)</sup>					
ESD	EN61000-4-2	Air±15kV; Contact ±8kV			Criteria A
RS	EN61000-4-3	10 V/m			Criteria A
EFT <sup>(5)</sup>	EN61000-4-4	±2kV			Criteria A
Surge <sup>(5)</sup>	EN61000-4-5	±2kV			Criteria A
CS	EN61000-4-6	10 V/rms			Criteria A
PFMF	EN61000-4-8	100A/m, continuous			Criteria A

**NOTES**

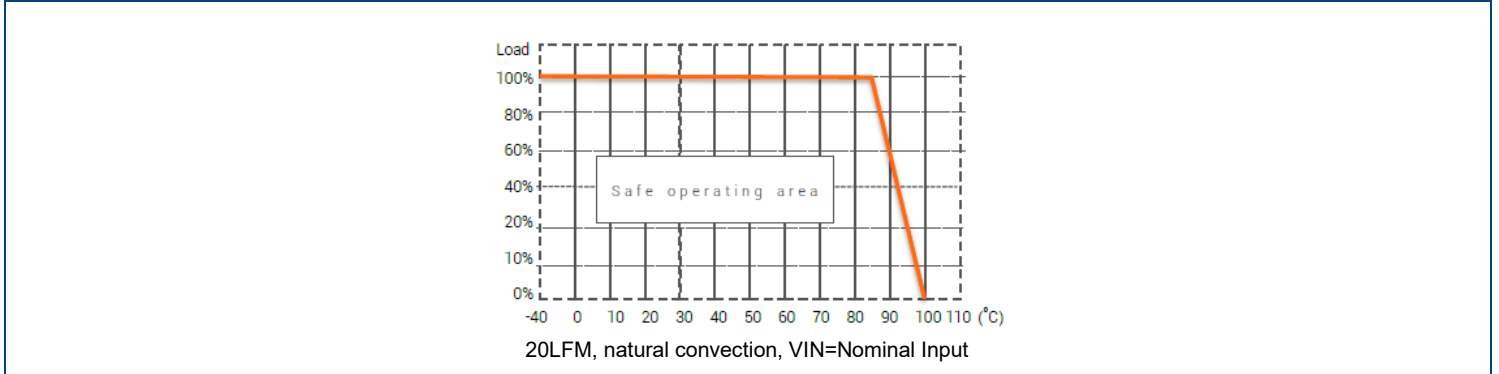
- Capacitive Load is tested at nominal input voltage and full load
- An external 10µF and 0.1µF capacitor placed between Vo+ and Vo-
- 100% test during production.
- This product is Listed to applicable standards and requirements by UL.
- An external filter is placed between Vin+ an Vin-

\*Due to advances in technology, specifications subject to change without notice.

PERFORMANCE CURVES



DERATING CURVES

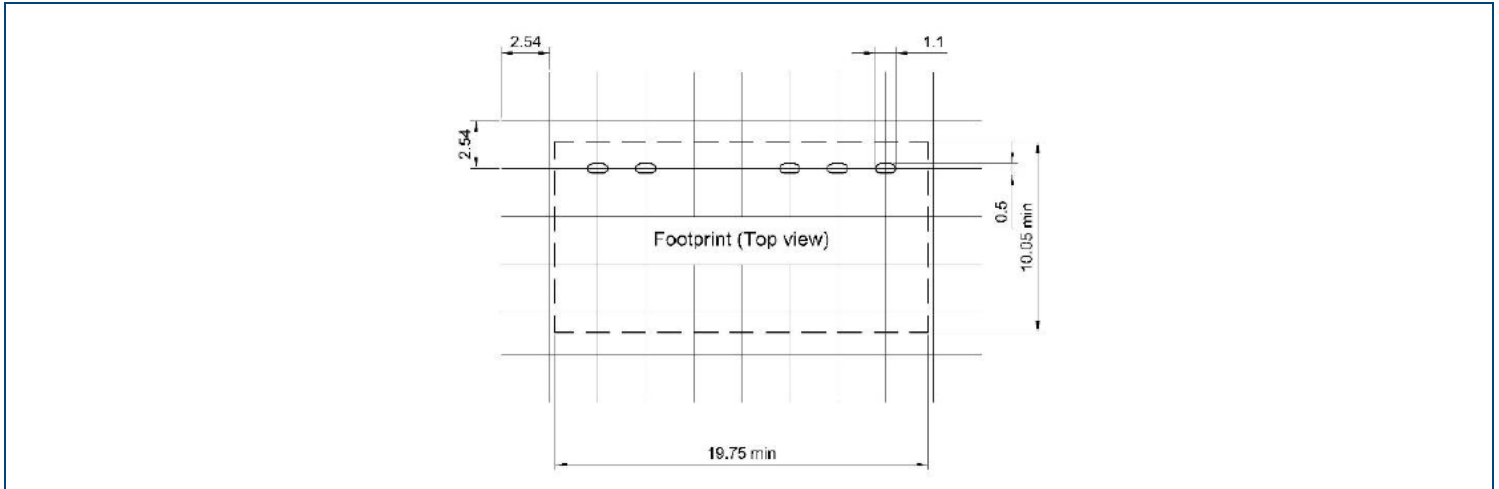


MECHANICAL DRAWINGS

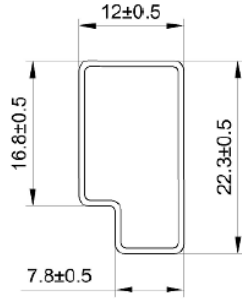
Pin	Function
1	Vin+
2	Vin-
5	Vo-
6	COM
7	Vo+

Note:  
Projection: Third Angle Projection  
Unit: mm  
PIN Tol: ±0.1  
Tolerance: ±0.25

FOOTPRINT RECOMMENDATION



**PACKAGING**

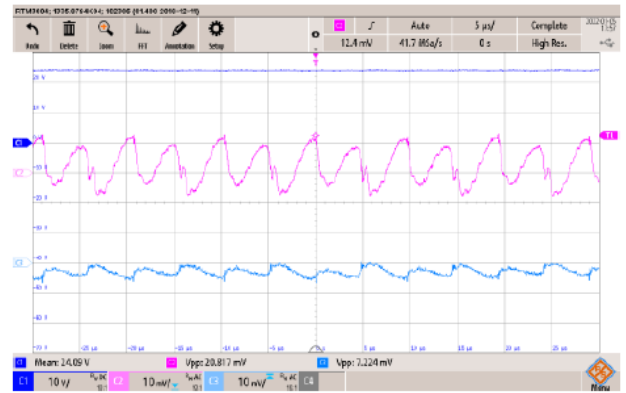
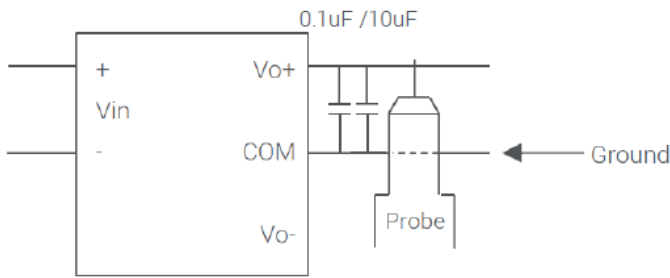


UNIT: mm  
1 Tube=25 pcs  
Length: 520±2mm

**TYPICAL RIPPLE & NOISE**

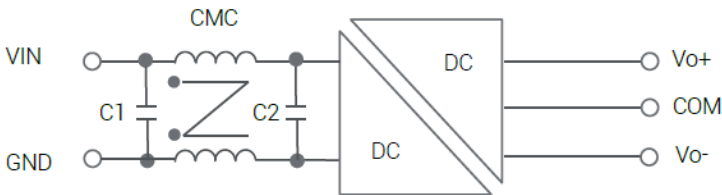
Typical Ripple & Noise @Ta=25°C

Measured with 20MHz bandwidth. Vpp(Vo+)=21mV;Vpp(Vo-)=8mV



**EMC FILTERING**

Suggestion for Class A/B  
Suggested filter and values to be EN55032/CISPR 32 Class A or B Compliant



Part No.	Input Voltage	C1/CMC/C2 (CISPR 32 Class A or B)
All	12V	10µF/0.91mH/10µF
	15V	
	24V	

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**COMPANY INFORMATION**

Wall Industries, Inc. has created custom and modified units for over 50 years. Our in-house research and development engineers will provide a solution that exceeds your performance requirements on-time and on budget. Our ISO9001: 2015 certification is just one example of our commitment to producing a high quality, well-documented product for our customers.

Our past projects demonstrate our commitment to you, our customer. Wall Industries, Inc. has a reputation for working closely with its customers to ensure each solution meets or exceeds form, fit and function requirements. We will continue to provide ongoing support for your project above and beyond the design and production phases. Give us a call today to discuss your future projects.

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