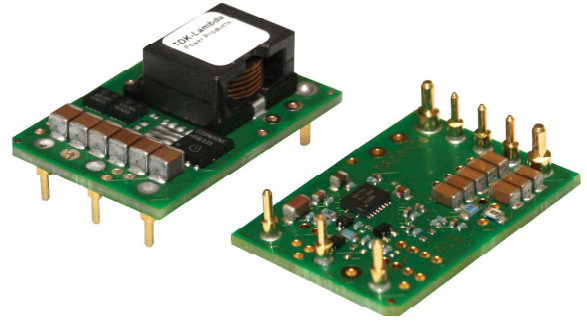


250W, 9-53V Input Non-isolated DC-DC Converter

Features

- ◆ Up to 250W Output
- ◆ 1/16th brick Footprint
- ◆ Wide Output Adjustment 3.3 to 15V or 3.3 to 40V
- ◆ Minimal External Components Needed
- ◆ Constant Switching Frequency



Key Market Segments & Applications



Specifications		Model	I6A4W010A033V	I6A4W020A033V
DC Output Voltage	V		3.3 to 40V	3.3 to 15V
DC Output Power (max)	W		250	
DC Input Voltage	V		9 to 53 (Turn on at 10V or greater)	
Efficiency	%		94 - 97.5	90 - 97
Output Voltage Tolerance	%		±4	
Switching Frequency	kHz		400	
Line Regulation	%		0.3	0.4
Load Regulation	%		0.9	1.2
External Load Capacitance	µF		0 - 1500	
Output Ripple and Noise	mVpp		50	20
Overcurrent Protection	A		15	27
Remote On / Off	-		See options table	
Remote Sense	-		(+ Sense, compensating up to 5% of output voltage	
Power Good	-		Optional (Full Feature Version)	
Sync & Sequencing	-		Optional (Full Feature Version)	
Operating Temperature	°C		-40 to 125 (see thermal data on website)	
Storage Temperature	°C		-55 to 125	
Safety Agency Certifications	-		UL/EN/IEC 60950-1, CE Mark	
Weight	g / oz		15g / 0.53 oz	
Size (LxWxH)	mm / in.		33 x 22.9 x 12.1 / 1.3 x 0.9 x 0.47	
Warranty	yrs		3 years	

Note: (1) Consult the Full Datasheet for additional product information.

Model Selector

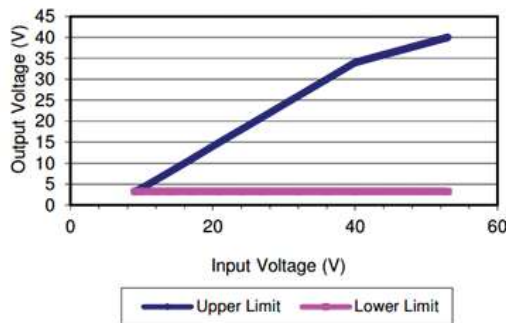
Input Model	Input Voltage (V)	Output Current (A)	Output Voltage (V)	Positive Logic On/Off	Negative Logic On/Off	Full Feature
i6A4W010A033V-001-R	9 to 53	10	3.3 to 40	-	Yes	-
i6A4W020A033V-000-R	9 to 53	20	3.3 to 15	Yes	-	-
i6A4W020A033V-001-R	9 to 53	20	3.3 to 15	-	Yes	-
i6A4W020A033V-002-R	9 to 53	20	3.3 to 15	Yes	-	Yes
i6A4W020A033V-005-R	9 to 53	20	3.3 to 15	-	Yes	Yes (1)

Preferred

Note: Output voltage cannot exceed input voltage (see graph below).
 (1) Full Feature module but without the SEQ pin installed.

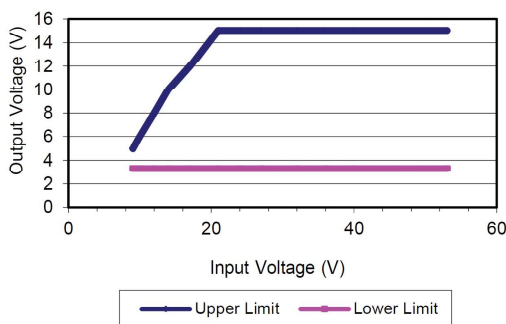
Output Voltage vs Input Voltage Operating Range

i6A4W10A

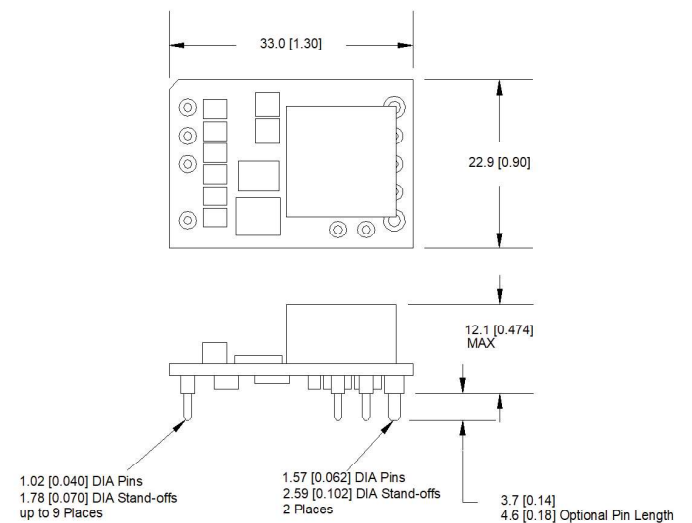


Output Voltage vs Input Voltage Operating Range

i6A4W20A



Mechanical Specification

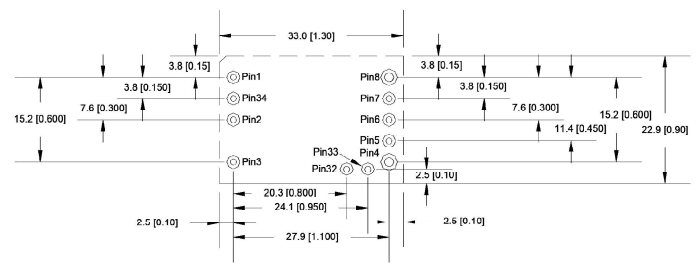


Evaluation Board

Evaluation kit part #	Contents
i6A20A-001-EVK-S1PX	Populated with one piece of i6A4W020A033V-001-R
i6A20A-001-EVK-S1CC	Populated with one piece of i6A4W020A033V-001-R to set for constant current operation
i6A10A-001-EVK-S1PX	Populated with one piece i6A4W010A033V-001-R.
i6A10A-001-EVK-S1CC	Populated with one piece i6A4W010A033V-001-R set for constant current operation.

User manual available at i6A4W technical files in our website, contact technical support for more details on constant current version.

Recommended Hole Pattern (top view)



Pinout

PIN	Function	PIN	Function
1	VIN (+)	7	SENSE (+)
2	ON / OFF	8	VOUT (+)
3	VIN (-)	32	Sync (Option)
4	VOUT (-)	33	MS (Option)
5	PWR GOOD (Option)	34	SEQ (Option)
6	TRIM		

For Additional Information, please visit us.tdk-lambda.com/lp/products/i6a-series.htm

