

TECHNICAL DATA
DATA SHEET 2053, REV. -

DC-DC Converters

Wide Input (2:1), 1000V Isolation, Regulated, Single Output

FEATURES:

- Isolation Voltage: 1000Vdc
- Isolation Resistance (1): 1GW
- Short-Circuit Duration: Continuous
- Case Temperature Rise: Max. 25° C, Typ. 15° C
- Cooling Method: Free-Air Cooling
- Operating Temp.: -40° C ~ + 70° C
- Storage Temp.: -50° C ~ + 125° C
- Humidity: \leq 95%
- Soldering Temp. (2): 300° C
- Case Material: Non-Flammable Material (UL94-V0)
- Mean Time Before Failure: > 1,090,000 hours (Operating Temp. 25° C)

W-1W/2W/3W Single Output Series Input Characteristics

Part Number	Nominal Input Voltage	Input Voltage Range	Maximum Input Voltage*
W05XXHDB1/2/3	5Vdc	4.5~9Vdc	11Vdc
W12XXHDB1/2/3	12Vdc	9~18Vdc	22Vdc
W24XXHDB1/2/3	24Vdc	18~36Vdc	40Vdc
W48XXHDB1/2/3	48Vdc	36~72Vdc	80Vdc

* Voltage above this value may cause permanent damage to the device.

W-1W/2W/3W Single Output Series Output Characteristics

Parameter	MIN	TYP	MAX	Units
1W Output Power	0.25		1	W
2W Output Power	0.4		2	W
2W Output Power	0.75		3	W
Output Voltage Accuracy		\pm 1	\pm 3	%
Efficiency at 25% Load		65		%
Efficiency at 100% Load		75		%
Voltage Regulation		0.1	0.2	%
Load Regulation		0.2	0.5	%
Temperature Coefficient			0.02	%/°C
Ripple		10	20	mVp-p
Noise		50	100	mVp-p
Switching Frequency at 100% Load	80		200	kHz
Switching Frequency at 25% Load	250		550	kHz

1. All specifications at TA=25°C, 75% of the humidity, Nominal input voltage, full output load unless otherwise specified.
2. Soldering for 10 seconds at 1.5mm away from the edge.

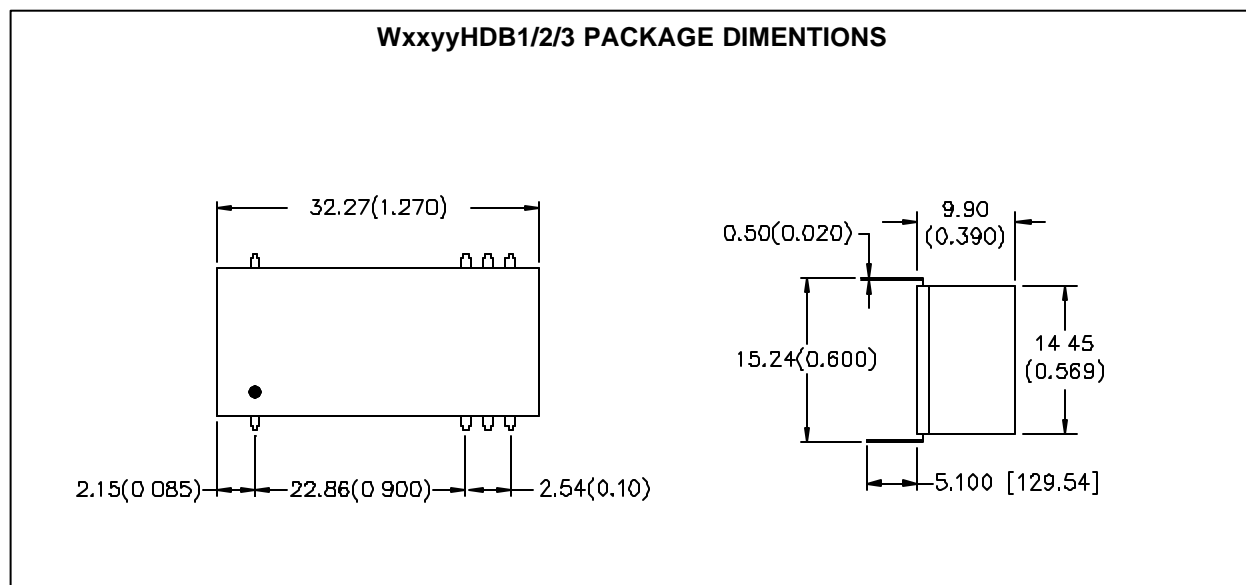
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W-1W/2W/3W Single Output Series Part Number List

Input	Output	Power	Single-1W	Single-2W	Single-3W
5Vdc		1.00W	W0505HDB1	W0505HDB2	-
			W0509HDB1	W0509HDB2	-
			W0512HDB1	W0512HDB2	-
			W0515HDB1	W0515HDB2	-
12Vdc	5V/200m A	1.00W			
	9V/110m A	1.00W			W1203HDB3
	12V/83m A	1.00W	W1205HDB1	W1205HDB2	W1205HDB3
	15V/65m A	1.00W	W1209HDB1	W1209HDB2	W1209HDB3
	5V/400m A	2.00W	W1212HDB1	W1212HDB2	W1212HDB3
	9V/220m A	2.00W	W1215HDB1	W1215HDB2	W1215HDB3
24Vdc	12V/165m A	2.00W			W2403HDB3
	15V/130m A	2.00W	W2405HDB1	W2405HDB2	W2405HDB3
	3V/485m A	3.00W	W2409HDB1	W2409HDB2	W2409HDB3
	5V/500m A	3.00W	W2412HDB1	W2412HDB2	W2412HDB3
	9V/333m A	3.00W	W2415HDB1	W2415HDB2	W2415HDB3
48Vdc	12V/250m A	3.00W			W4803HDB3
	15V/200m A	3.00W	W4805HDB1	W4805HDB2	W4805HDB3
			W4809HDB1	W4809HDB2	W4809HDB3
			W4812HDB1	W4812HDB2	W4812HDB3
		W4815HDB1	W4815HDB2	W4815HDB3	

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Mechanical Dimension: in inches / (mm) & Pin Configuration



PIN CONFIGURATION

Pin	Function
1	Vin
10	0V
11	+Vo
12	GND
13	GND
14	+Vo
15	0V
24	Vin

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