



**COIL TECHNOLOGY  
CORPORATION**

## **10 W DC/DC CONVERTERS**

<b>SERIES</b>	<b>DESCRIPTION</b>	<b>Page</b>
<b>PB10WR</b>	<b>2:1 Input Range 24 pin DIL and SMD packages 2kv Isolation</b>	<b>2</b>
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**Features:**

- 10 Watts Output Power ( PWM Design )
- 2 : 1 Wide Input Voltage Range
- 2000VDC Isolation ( "H" means 3000VDC)
- Remote On/Off control
- Over Loading Protection
- Continuous Short Circuit Protection
- UL1950 Component Recognized
- Standard DIL 24 Metal Package
- High Efficiency up to 87%
- ROHS Compliant
- Meet CE EN-60950-1 Certified


**Description:**

The PB10WR-xxxxA/DA series is a wide input voltage range of DC-DC converters offering a single and dual regulated output. 24-pin DIP and SMD.

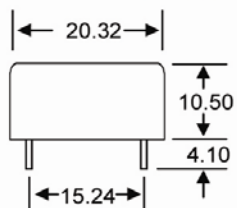
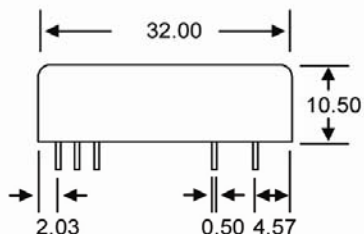
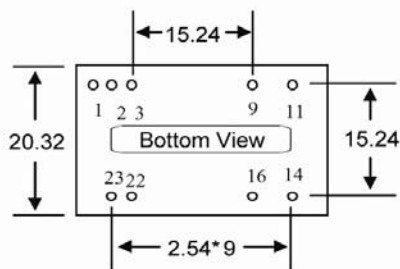
Selection Guide				
P/N	Input Range	Output Voltage	Output Current	Efficiency Typ.
PB10WR-123.3A	9 ~ 18VDC	3.3	2000mA	85%
PB10WR-1205A		5	2000mA	87%
PB10WR-1212A		12	833mA	85%
PB10WR-1215A		15	667mA	86%
PB10WR-1205DA		±5	±1000mA	83%
PB10WR-1212DA		±12	±416mA	85%
PB10WR-1215DA		±15	±333mA	86%
PB10WR-243.3A	18 ~ 36VDC	3.3	2000mA	85%
PB10WR-2405A		5	2000mA	87%
PB10WR-2412A		12	833mA	85%
PB10WR-2415A		15	667mA	86%
PB10WR-2405DA		±5	±1000mA	83%
PB10WR-2412DA		±12	±416mA	85%
PB10WR-2415DA		±15	±333mA	86%
PB10WR-483.3A	36 ~ 75VDC	3.3	2000mA	85%
PB10WR-4805A		5	2000mA	87%
PB10WR-4812A		12	833mA	85%
PB10WR-4815A		15	667mA	86%
PB10WR-4805DA		±5	±1000mA	83%
PB10WR-4812DA		±12	±416mA	85%
PB10WR-4815DA		±15	±333mA	86%

Electrical Specifications				
Input Filter	Pi type.			
Voltage Accuracy		MIN.	TYP.	MAX.
				±1.2%
Minimum Load	10% of Full Load			
Line Regulation	Low line to High line @Max. load			±1%
Load Regulation	25% ~ 100% load	Single output		±1%
		Dual output		±2%
Cross Regulation	(25% to 100% Load )			±5%
Ripple & Noise	@ 20MHZ BW			50mVp-p
Operating Ambient Temperature		-40°C		+75°C
Storage Temperature		-55°C		+105°C
Case Temperature			+100°C max	
Short-Circuit Protection	Continuous , Automatic recovery			
Operating Frequency (Pulse Frequency Modulation,PFM)	Vin = Nominal Input		400KHz typ.	
Isolation Test Voltage	Tested for 1 second Minute.	MIN.	TYP.	MAX.
		2000Vdc		
Isolation Capacity				1200pF
Isolation Resistance		1GΩ		
Humidity				95%
MTBF ( MIL-HDBK-217F)			TBD	

Physical Specifications	
Case Material	Nickel plated copper
Potting Material	Epoxy( UL94V-0 )
Weight	18.0g

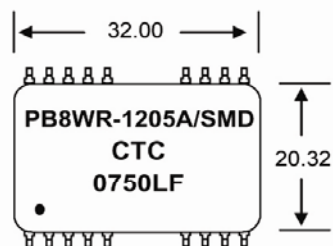
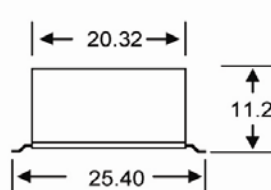
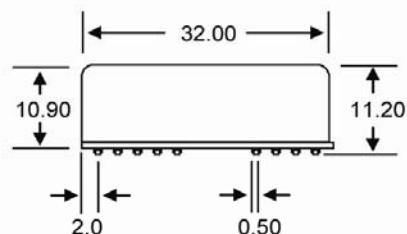
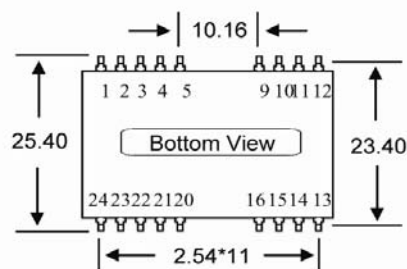
All specifications valid at nominal input voltage, full load @ 25°C after warm-up time unless otherwise stated.

## Outline Dimensions



Nc : No Connection  
Tol :  $\pm 0.25$  mm  
Pin :  $\pm 0.05$  mm

Pin	Single	Dual
22, 23	+Vin	+Vin
2, 3	- Vin	- Vin
9	Nc	Com
11	Nc	- Vout
14	+Vout	+Vout
16	- Vout	Com

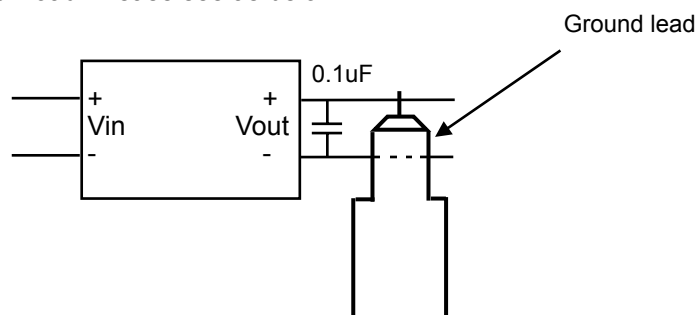


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16	- Vout	Com

Note:

- To measure the output ripple & noise with short runs by 0.1uF MLCC @ 20MHz nominal input and full load. Please see as below :



**Features:**

- 10 Watts Output Power ( PWM Design )
- 4: 1 Wide Input Voltage Range
- 2000VDC Isolation ( "H" means 3000VDC)
- Remote On/Off control
- Over Loading Protection
- Continuous Short Circuit Protection
- UL1950 Component Recognized
- Standard DIL 24 Metal Package
- High Efficiency up to 87%
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**Description:**

The PB10WR4-xxxxA/DA series is a wide input voltage range of DC-DC converters offering a single and dual regulated output. 24-pin DIP and SMD.

Selection Guide				
P/N	Input Range	Output Voltage	Output Current	Efficiency Typ.
PB10WR4-243.3A	9 ~ 36VDC	3.3	2000mA	84%
PB10WR4-2405A		5	2000mA	85%
PB10WR4-2412A		12	833mA	83%
PB10WR4-2415A		15	667mA	84%
PB10WR4-2405DA		±5	±1000mA	82%
PB10WR4-2412DA		±12	±416mA	84%
PB10WR4-2415DA		±15	±333mA	85%
PB10WR4-483.3A	18 ~ 75VDC	3.3	2000mA	84%
PB10WR4-4805A		5	2000mA	85%
PB10WR4-4812A		12	833mA	84%
PB10WR4-4815A		15	667mA	85%
PB10WR4-4805DA		±5	±1000mA	83%
PB10WR4-4812DA		±12	±416mA	84%
PB10WR4-4815DA		±15	±333mA	85%

## Electrical Specifications

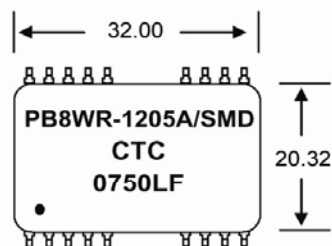
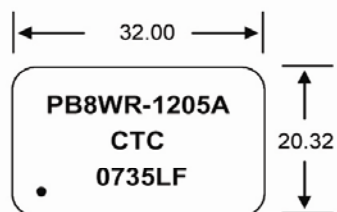
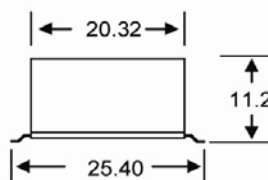
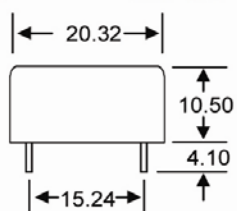
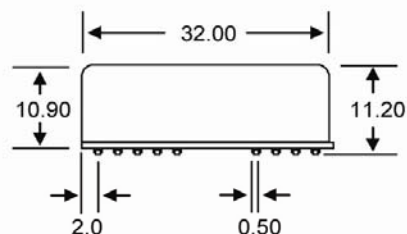
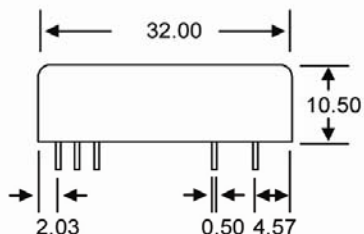
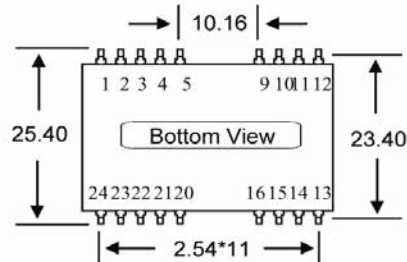
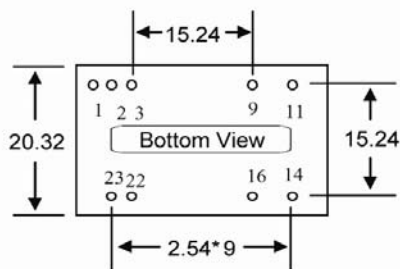
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Storage Temperature			-55°C		+105°C
Case Temperature			+100°C max		
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Operating Frequency (Pulse Frequency Modulation,PFM)	Vin = Nominal Input		400KHz typ.		
Isolation Test Voltage	Tested for 1 second Minute.		MIN.	TYP.	MAX.
			2000Vdc		
Isolation Capacity					1200pF
Isolation Resistance			1GΩ		
Humidity					95%
MTBF ( MIL-HDBK-217F)				TBD	

## Physical Specifications

Case Material	Nickel plated copper
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Weight	18.0g

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