

# 7.5W DC-DC Converter P8Y90S05HD

- 2:1 Wide input voltage range
- Five-sided shield
- Standard 1" x 2" x 0.41" package
- Fixed switching frequency



## Model selection guide

Typ	Input nominal voltage [V <sub>DC</sub> ]	Output voltage [V <sub>DC</sub> ]	Output current [mA]	Efficiency typ. [%]
Single Output				
P8Y90S05HD	40...140	5.0	1500	78

## Specifications

Input	
Voltage range	40 to 140V <sub>DC</sub>
Filter (see note 1)	Pi type
Output	
Output Power	7.5 W max.
Voltage accuracy full load and nominal V <sub>in</sub>	±2%
Ripple and noise (at 20 MHz BW)	50mVp-p
Short circuit protection	Continuous
Transient response, 25% step load change	400µs 100mV max.
Line voltage regulation LL to HL at Full Load	±0.1%
Load voltage regulation Full load at 25% of full load	±0.2%
Temperature coefficient	± 0.02% / °C, max
Minimum load	10% of full load
Over voltage protection	5.6 to 6Vdc

General	
Switching frequency	220 kHz, typ.
Environmental	
Operating temperature	-25°C to +71°C
Storage temperature range	-40 °C to +125 °C
Cooling	Free-air convection
Physical	
Dimensions	50.8 x 25.4 x 10.2 mm
Weight	20 g
Case material	Nickel-coated copper
Isolation	
Rated voltage	1500 V <sub>DC</sub> , min
Resistance	10 <sup>9</sup> Ω, min.
Capacitance	1000pF, max
EMC	
	In accordance with EN55022 class B

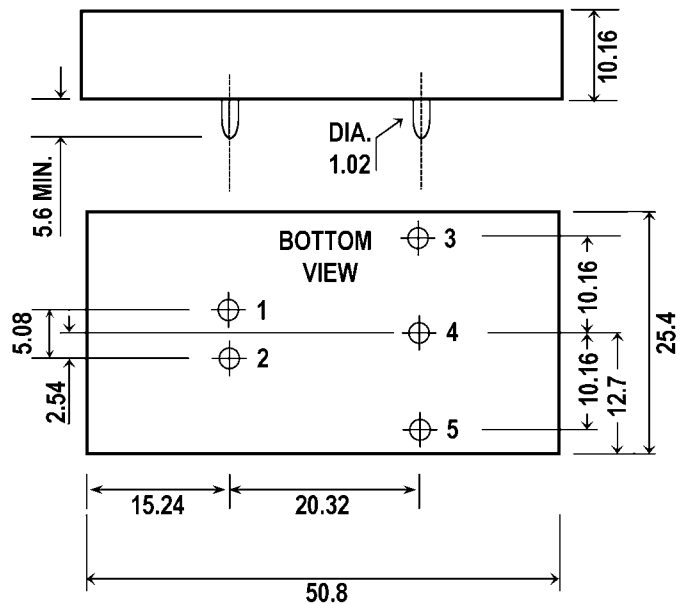
Note1: An external filter capacitor is required for normal operation. The capacitor should be capable of handling 1A ripple current.  
Example: 220µF/ 100V, ESR <90mΩ.

## Pin connections

Pin	Triple
1	+ Input
2	- Input
3	+ Output
4	Omitted
5	- Output

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Rev: 05 / 05 f

## Dimensions



1. All dimensions in mm
2. Pin pitch tolerance ±0.35