

μPRV Series

Surface mount, 0.1inch³, isolated, proportional high voltage DC/DC converter

Wide operating temperature range: -40/+85°C



Nominal Power : 1.25W @ 85°C ambient

3models:

- μPRV24-200: 24V i/p, 200V o/p
- μPRV28-100: 28V i/p, 100V o/p
- μPRV24-100: 24Vi/p, 250V o/p



Features :

These DC/DC converters are proportional : the output is proportional to the input

Operating temperature range: -40/+85°C with no derating no heatsink		Isolation: >100 MΩ under 1000V
Miniature and lightweight	SMD case	Dimension: 0.5 x 0.5 x 0.5 inch
Excellent TC: 0.01%/°C	Excellent Load stability : 20% no/full load	Low ripple (<0.3%)
RoHS compliant product	Potted in an UL epoxy resin	High efficiency (75-80%)

Parameters	Specifications (at Tamb=25°C unless otherwise specified)			
Model	μPRV28-100	μPRV24-200	μPRV24-250	Units
Input voltage Vin	from 0.7 to 28	From 0.7 to 24	From 0.7 to 24	Vdc
Maximum output voltage	100	200	250	Vdc
Full load o/p voltage tolerance	±5	±5	±5	%
Nominal output current	12.5	6.25	5.0	mA
Typical efficiency (see graph)	77	82	79	%
Full load input current	59	65	66	mA
Full load output ripple	200	150	120	mVp-p
Typical frequency	450-500			kHz
Output short circuit protection	None for duration >1s			
Input reverse voltage protection	None for Vin < -0.2V			
Voltage change No Load/Full Load	+20% Typical (see graph)			
O/p voltage Temperature Coefficient	100ppm/°C over the operating temperature range			
Isolation Input/output	1000V (@ sea level)			
Operating temperature range	-40°C to +85°C ambient			
Storage temperature range	-55°C to +125°C ambient			



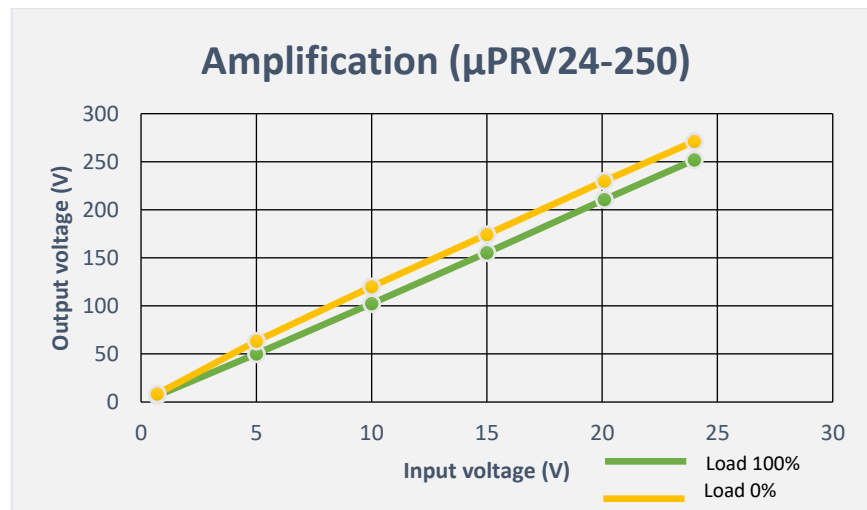
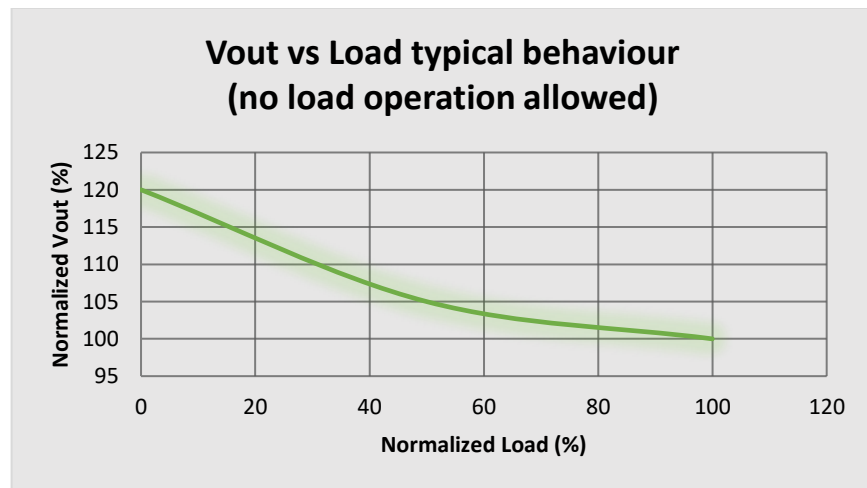
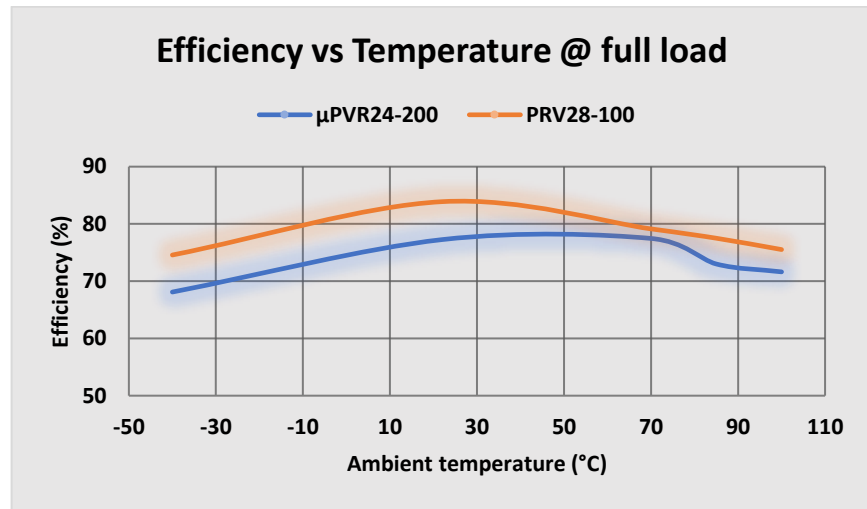
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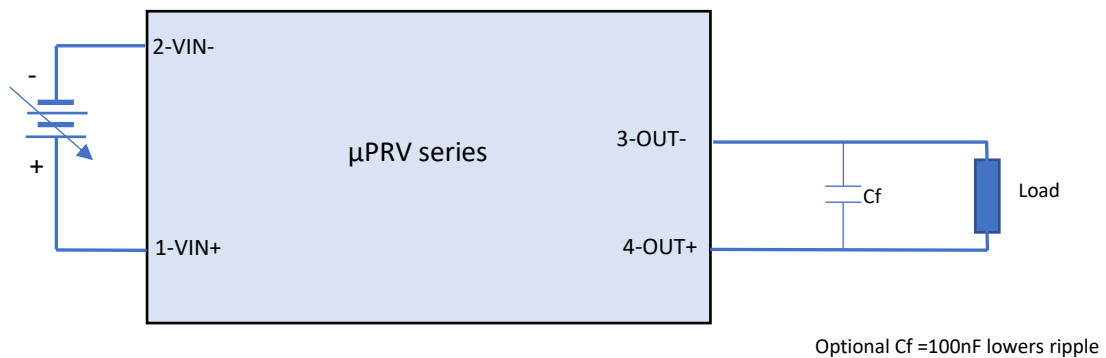
Package Configuration

Case material	Surface Mount Device system Top case: ABS UL94-HB, Base: FR4 UL-V0
Case dimensions	L 12.0 x W 12.0 x H 12.0mm (see mechanicals drawing)
Weight	~3.5g
Insulation	Fully potted with an UL epoxy resin

Pins' function

Line input	#1: Supply (IN+) #2: 0V supply (IN-)
Output	#3: Output Return (OUT-) #4: Output (OUT+)

Functional diagram



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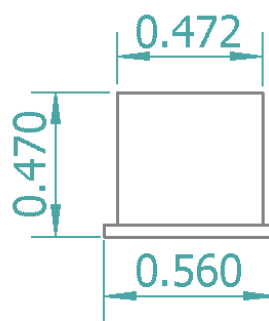
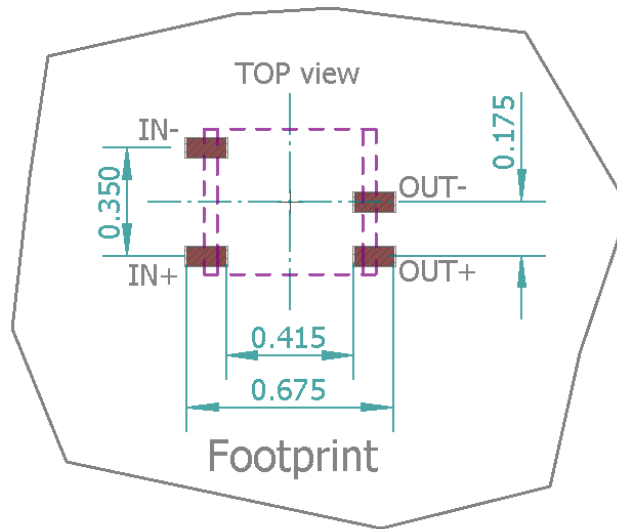
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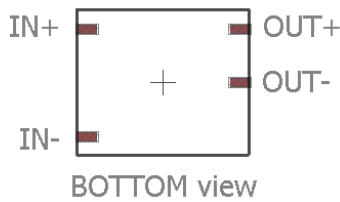
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Mechanical details (not to scale)



All dimensions are in inch.



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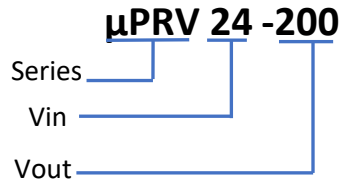
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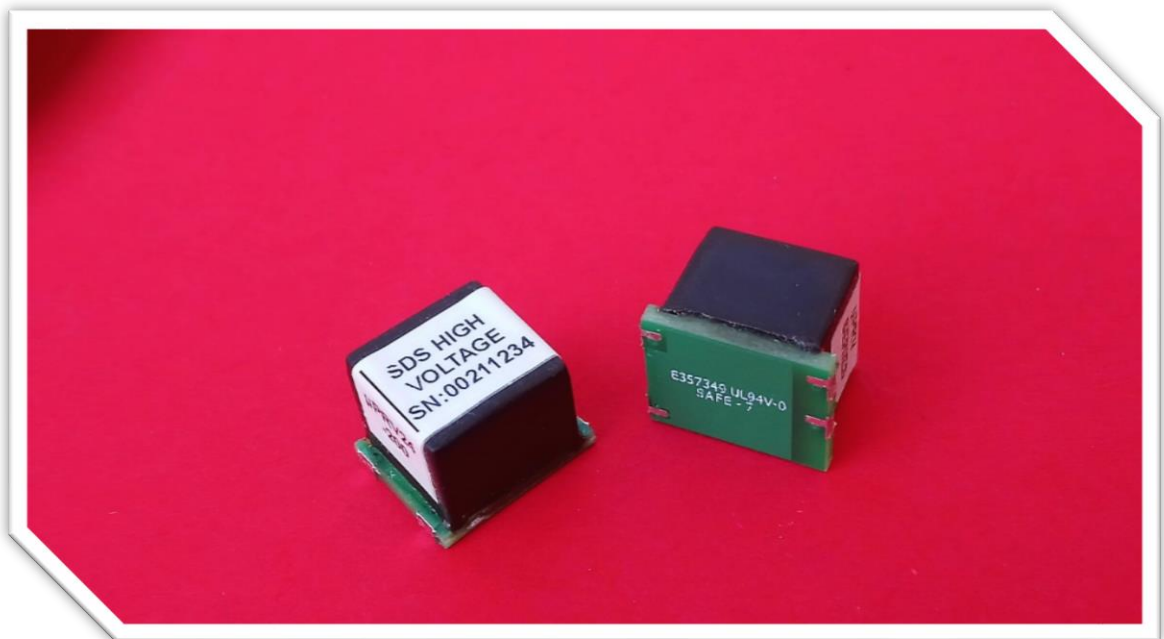
Ordering information

Series	μPRV series	μPRV
Input	24VDC nominal	24
	28VDC nominal	28
Output	100VDC	100
	200VDC	200
	250VDC	250

Example of reference to order:



Other models may be possible on demand.



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