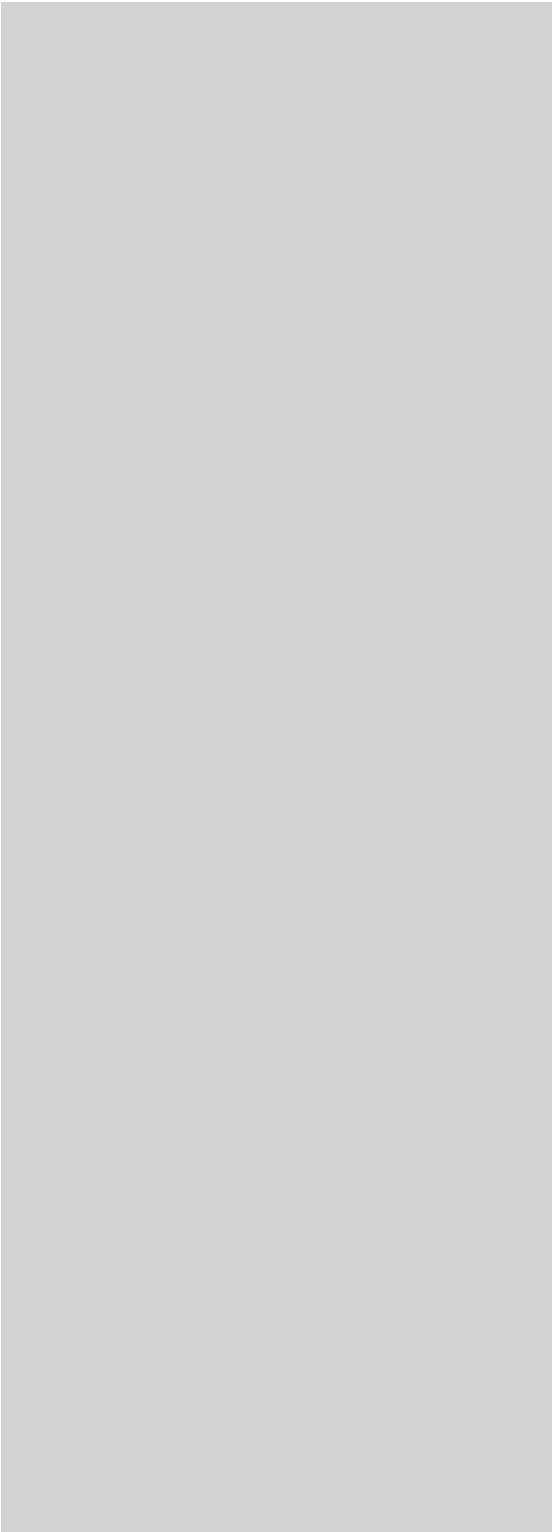


SELECTION GUIDE

Order code	Input Voltage (V)
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Output Specifications

Parameter	Conditions	Min.	Typ.	Max.	Units
Rated Power	TA= -40°C to 120°C			1.0	W
Rated Power(B24、B48)	TA=0°C to 70°C			1.0	W
Voltage Set Point Accuracy	See tolerance envelope				
Line regulation	High VIN to low VIN		1.0	1.2	

Technical notes

ISOLATION VOLTAGE

"Hi Pot Test", "Flash Tested", "Withstand Voltage", "Dielectric Withstand Voltage" & " Isolation Test Voltage" are all terms that relate to the same thing, a test voltage. Applied for a specified time, across a component designed to provide electrical isolation, to verify the integrity of that isolation. Professional Power Module B series of DC/DC converters are all 100% production tested at their stated isolation voltage. This is 1KVDC for 1 second.

A question commonly asked is, "What is the continuous voltage that can be applied across the part in normal operation?"

For a part holding no specific agency approvals, such as the B series ,both input and output should normally be maintained within SELV limits i.e. less than 42.4V peak, or 60VDC. The isolation test voltage represents a measure of immunity to transient voltages and the part should never be used as an element of a safety isolation system. The part could be expected to function correctly with several hundred volts offset applied continuously across the isolation barrier, but then the circuitry on both sides of the barrier must be regarded as operating at an unsafe voltage and further isolation/insulation systems must form a barrier between these circuits and any user-accessible circuitry according to safety standard requirements.

REPEATED HIGH-VOLTAGE ISOLATION TESTING

It is well known that repeated high-voltage isolation testing of a barrier component can actually degrade isolation capability, to a lesser or greater degree depending on materials. Construction and environment. The B series has toroidal isolation transformers, with no additional insulation between primary and secondary windings of enameled wire. While parts can be expected to withstand several times the stated test voltage, the isolation capability does depend on the wire insulation. Any material, including this enamel (typically polyurethane) is susceptible to eventual chemical degradation when subject to very high applied voltages thus implying that the number of tests should be strictly limited. We therefore strongly advise against repeated high voltage isolation testing. but if it is absolutely required, that the voltage be reduced by 20% from specified test voltage.


This consideration equally applies to agency recognized parts for better than functional isolation where the wire enamel insulation is always supplemented by a further insulation system of physical spacing or barriers.

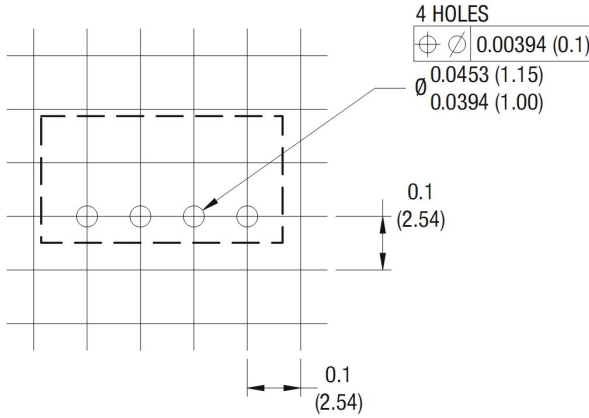
Technical notes

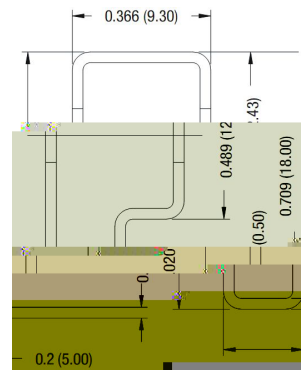
Output ripple reduction

By using the values of inductance and capacitance stated, the output ripple at the rated load is lowered to 5mV p-p max.

OUTLINE DIMENSIONS & FOOTPRINT DETAILS

MECHANICAL DIMENSIONS		FOOTPRINT DETAILS											
SIP Package		-4 PIN SIP											
 <p>0.45 (11.48) 0.236 (6.00)** 0.393 (10.0) 0.022 (0.56) 0.049 (1.25) 0.018 (0.30) 0.0078 (0.20) -0.074 (1.89) 0.109 (2.77)</p>		<table border="1"> <thead> <tr> <th>Pin</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>+Vin</td> </tr> <tr> <td>2</td> <td>-Vin</td> </tr> <tr> <td>3</td> <td>-Vout</td> </tr> <tr> <td>4</td> <td>+Vout</td> </tr> </tbody> </table>		Pin	Function	1	+Vin	2	-Vin	3	-Vout	4	+Vout
Pin	Function												
1	+Vin												
2	-Vin												
3	-Vout												
4	+Vout												
<p>All dimensions in inches ± 0.01 (mm ± 0.25mm). All pins on a 0.1 (2.54) pitch and within ± 0.01 (0.25) of true position. Weight: 1.46g (DIP) 1.30g (SIP)</p>													

Recommended footprint details	
4 PIN SIP Package	
 <p>4 HOLES $\varnothing 0.00394$ (0.1) $\varnothing 0.0453$ (1.15) $\varnothing 0.0394$ (1.00) 0.1 (2.54) 0.1 (2.54)</p>	

TUBE OUTLINE DIMENSIONS	
4 PIN SIP Tube	
 <p>0.366 (9.30) 0.433 (12) 0.709 (18.00) 0.50 (12.7) 0.020 (0.508) 0.2 (5.00)</p>	
<p>Unless otherwise stated all dimensions in inches (mm) ± 0.5mm. Tube length (4 Pin SIP) : 20.47 (520mm ± 2mm). Tube Quantity :25</p>	

