

Typical unit

FEATURES

- Non-isolated SMT POL DC/DC power module
- 16-40Vdc input voltage range
- Programmable output voltage from 0.7525-5.5Vdc
- 3 Amp output current models
- Drives 1000 μ F ceramic capacitive loads
- High power conversion efficiency 86% at 5 Vout
- Outstanding thermal derating performance
- Over temperature and over current protection
- On/Off control
- UL/EN/IEC 60950-1 safety, 2nd Edition
- Industry-standard (DOSA) surface-mount package
- RoHS-6 hazardous substance compliance

PRODUCT OVERVIEW

The OKI-T/3 series are non-isolated Point-of-Load (POL) DC/DC power converters for embedded applications. The module is fully compatible with Distributed-power Open Standards Alliance (DOSA) industry-standard specifications (www.dosapower.com). Applications include powering CPU's, industrial 24V transducers and POS terminals.

The wide input range is 16 to 40 Volts DC. The maximum output current is 3 Amps. Based on fixed-frequency synchronous buck converter

switching topology, the high power conversion efficient Point of Load (POL) module features programmable output voltage and On/Off control. These converters also include under voltage lock out (UVLO), output short circuit protection, over-current and over temperature protections.

These units are designed to meet all standard UL/EN/IEC 60950-1 safety certifications (2nd Edition) and RoHS-6 hazardous substance compliance.

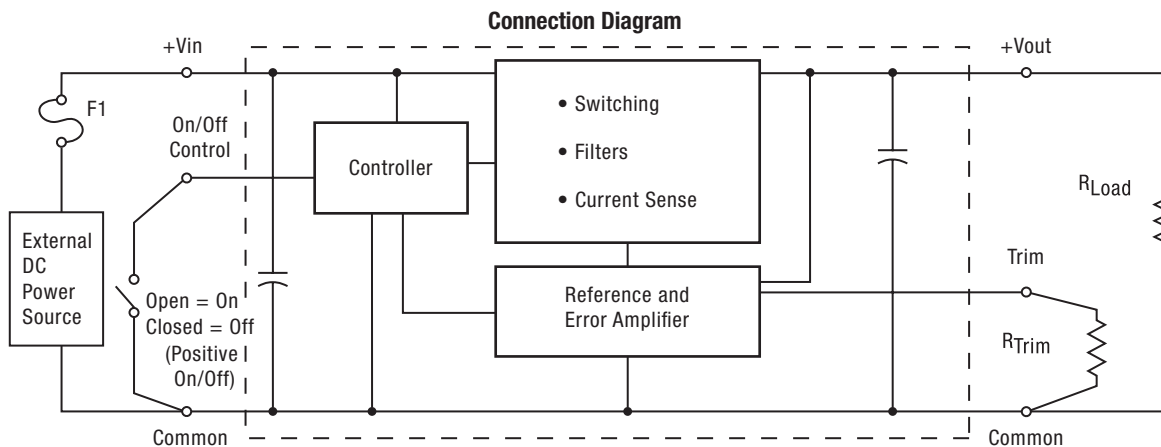


Figure 1. OKI-T/3

Note: Murata Power Solutions strongly recommends an external input fuse, F1. See specifications.



Performance Specifications Summary and Ordering Guide

ORDERING GUIDE														
Root Model ②	Output						Input				Efficiency		Package, C72	
	V _{OUT} (Volts) ⑥	I _{OUT} (Amps max)	Power (Watts)	R/N (mVp-p) ④	Regulation (Max.)		V _{IN} Nom. (Volts)	Range (Volts) ⑥	I _{IN} , no load (mA) ⑤	I _{IN} , full load (Amps)	Min.	Typ.	Case C72 ①	Pinout
				Max.	Line	Load								
OKI-T/3-W40N-C	0.7525-5.5	3	15	20	±0.2%	±0.25%	24	16-40	40	0.71	86.5%	88%	0.82 x 0.47 x 0.34 (20.8 x 11.9 x 8.5)	P78
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① Dimensions are in inches (mm).

② These are partial model numbers. Please refer to the part number structure for complete ordering part numbers.

③ All specifications are at nominal line voltage, V_{out}=nominal (5V for W40 models) and full load, +25 °C, unless otherwise noted.

Output capacitors are 1 µF ceramic and 10 µF electrolytic in parallel. Input cap is 22 µF. See detailed specifications.

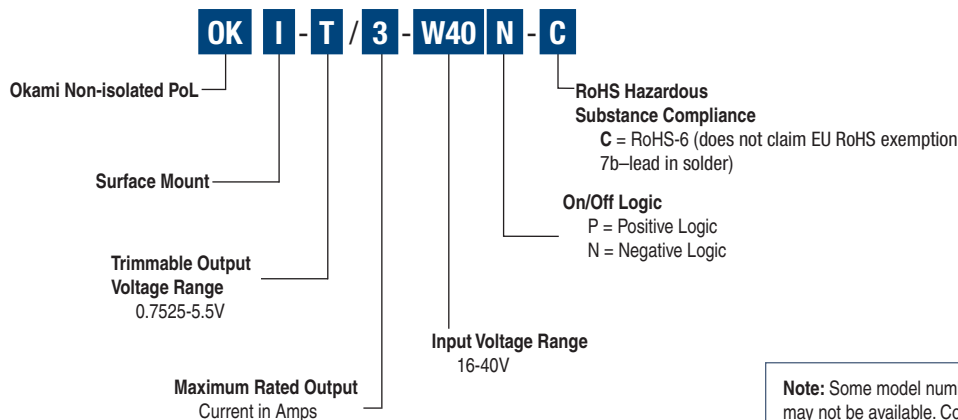
I/O caps are necessary for our test equipment and may not be needed for your application.

④ Ripple/Noise is shown at V_{out} = 1V.

⑤ No load input current is shown at V_{out} = 0.75V.

⑥ For V_{out} = 1V, V_{in} ≤ 32V. For V_{out} = 0.75V, V_{in} ≤ 24V.

PART NUMBER STRUCTURE



Note: Some model number combinations may not be available. Contact Murata Power Solutions for availability.

Product Label

Because of the small size of these products, the product label contains a character-reduced code to indicate the model number and manufacturing date code. Not all items on the label are always used. Please note that the label differs from the product photograph on page 1. Here is the layout of the label:

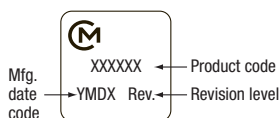


Figure 2. Label Artwork Layout

The label contains three rows of information:

- First row – Murata Power Solutions logo
- Second row – Model number product code (see table)
- Third row – Manufacturing date code and revision level

Model Number	Product Code
OKI-T/3-W40N-C	I00103
OKI-T/3-W40P-C	I01103

The manufacturing date code is four characters:

- First character – Last digit of manufacturing year, example 2009
- Second character – Month code (1 through 9 and 0 through D)
- Third character – Day code (1 through 9 = 1 to 9, 10 = 0 and 11 through 31 = A through Z)
- Fourth character – Manufacturing information