

PRODUCT OVERVIEW

The OKY-T/3 and -T/5 series are miniature non-isolated Point-of-Load (POL) switch mode 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, datacom/telecom systems, distributed bus architectures (DBA), programmable logic and mixed voltage systems.

The wide input range is 2.4 to 5.5 Volts DC. Two maximum output currents are offered, 3 Amps (T/3 models) or 5 Amps (T/5 models). 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 and FCC EMI/RFI emissions certifications and RoHS-6 hazardous substance compliance.



Typical unit

FEATURES

- Non-isolated SMT POL DC/DC power module
- 2.4-5.5Vdc input voltage range
- Programmable output voltage from 0.75-3.63Vdc
- 3 Amp (T/3) or 5 Amp (T/5) output current models
- Drives 1000 μ F ceramic capacitive loads
- High power conversion efficiency at 96%
- Outstanding thermal derating performance
- Over temperature and over current protection
- On/Off control
- UL/EN/IEC 60950-1 safety
- Industry-standard (DOSA) surface-mount package
- RoHS-6 hazardous substance compliance

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Connection Diagram

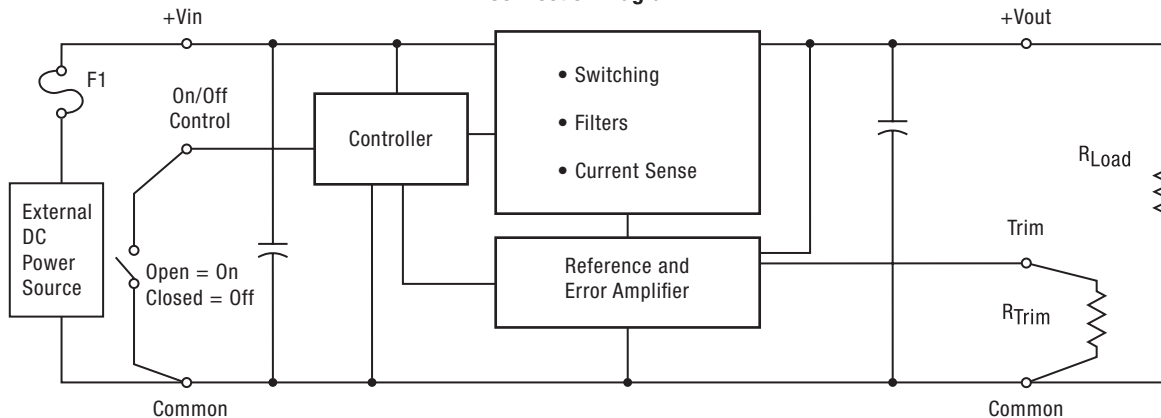


Figure 1. OKY-T/3, -T/5

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



This data sheet contains core information only. Please click [here](#) for the full data sheet.



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Performance Specifications and Ordering Guide

ORDERING GUIDE														
Root Model ②	Output						Input				Efficiency		Package	
	V _{OUT} (Volts)	I _{OUT} (Amps max)	Power (Watts)	R/N (mVp-p)⑤	Regulation (Max.)③		V _{IN} Nom. (Volts)	Range (Volts) ④	I _{IN} , no load (mA)	I _{IN} , full load (Amps)	Min.	Typ.	Case C72 ①	Pinout
				Max.	Line	Load								
OKY-T/3-W5N-C	0.7525-3.63	3	10.9	20	±0.2%	±1.5%	5	2.4-5.5	45	2.1	92%	94.4%	0.47 x 0.82 x 0.28 (11.9 x 20.8 x 7.0)	P78
OKY-T/3-W5P-C	0.7525-3.63	3	10.9	20	±0.2%	±1.5%	5	2.4-5.5	45	2.1	92%	94.4%	0.47 x 0.82 x 0.28 (11.9 x 20.8 x 7.0)	P78
OKY-T/5-W5N-C	0.7525-3.63	5	18	20	±0.2%	±1%	5	2.4-5.5	35	3.5	92%	96%	0.47 x 0.82 x 0.28 (11.9 x 20.8 x 7.0)	P78
OKY-T/5-W5P-C	0.7525-3.63	5	18	20	±0.2%	±1%	5	2.4-5.5	35	3.5	92%	96%	0.47 x 0.82 x 0.28 (11.9 x 20.8 x 7.0)	P78

① Dimensions are in inches (mm).

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

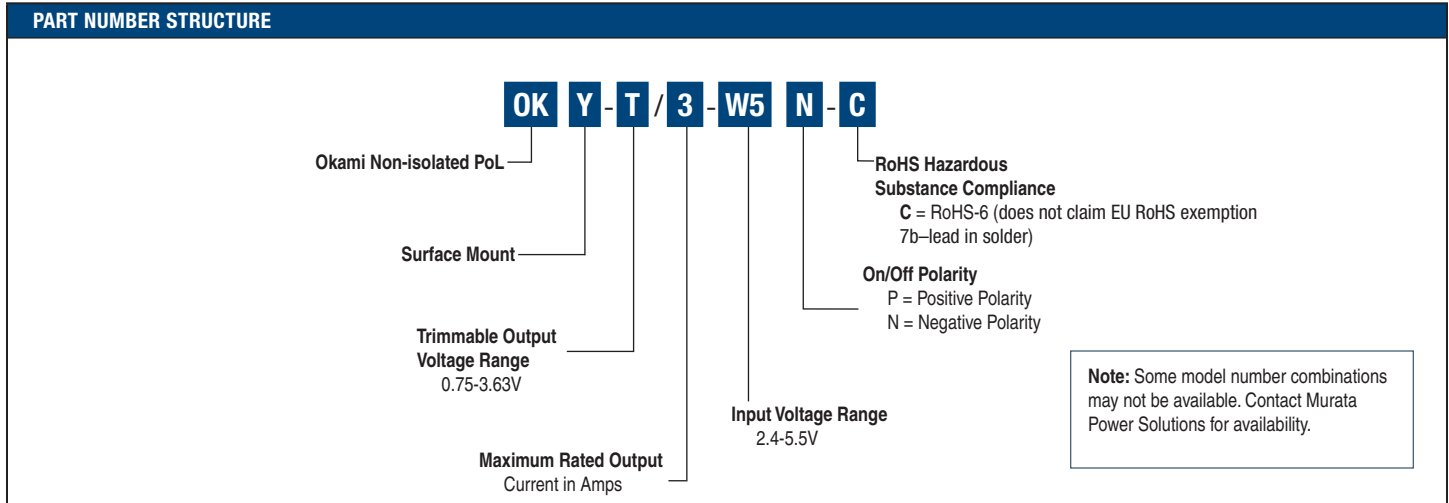
③ All specifications are at nominal line voltage, V_{OUT}=nominal (3.3V) and full load, +25 °C, unless otherwise noted.

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 V_{IN} must be 0.5V or higher than V_{OUT}.

⑤ Ripple and Noise is shown at V_{OUT}=1V.



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. Here is the layout of the label:

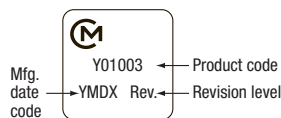


Figure 2. Label Artwork Layout

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
OKY-T/3-W5N-C	Y00003
OKY-T/3-W5P-C	Y01003
OKY-T/5-W5N-C	Y00005
OKY-T/5-W5P-C	Y01005

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

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MECHANICAL SPECIFICATIONS

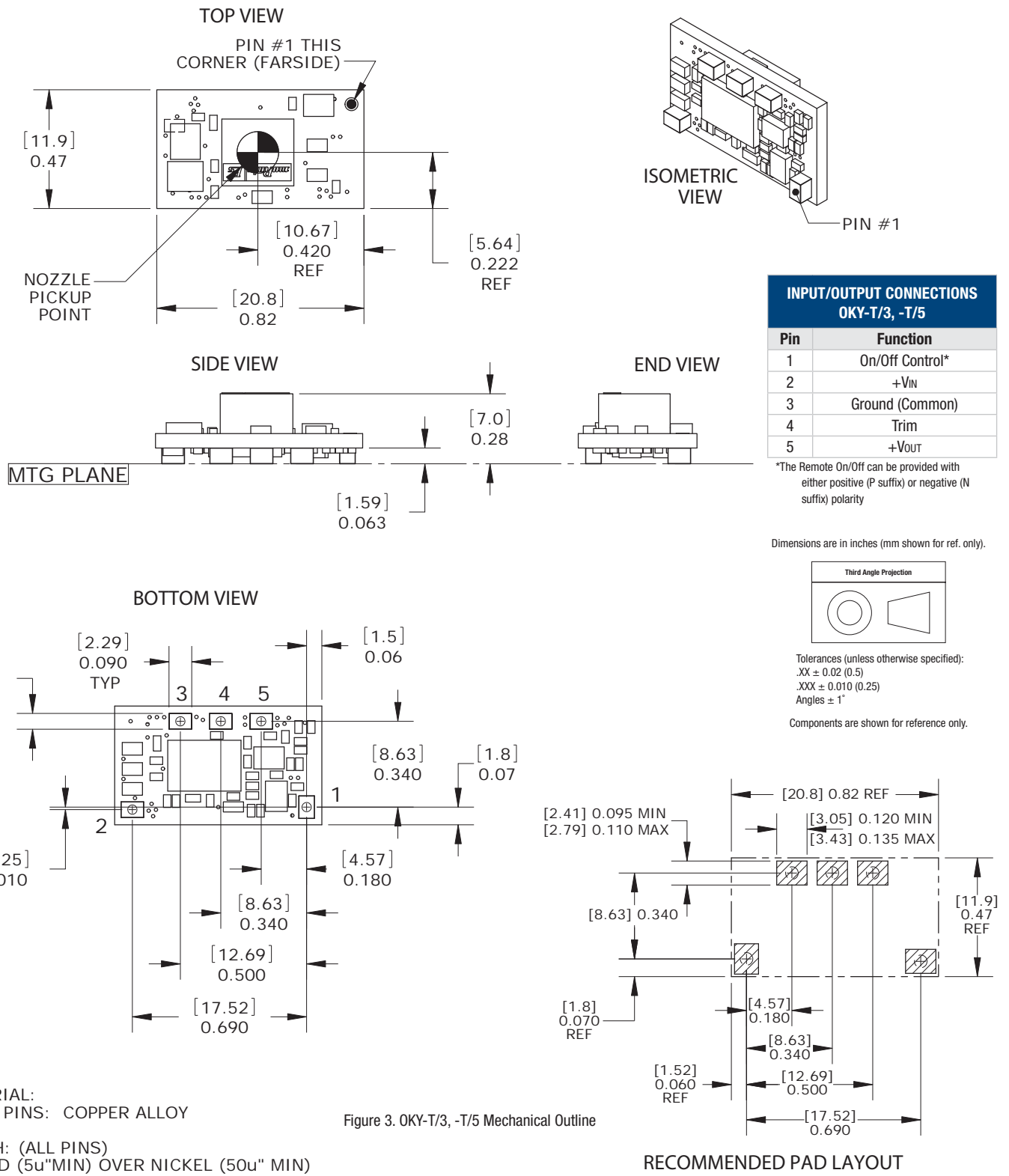



Figure 3. OKY-T/3, -T/5 Mechanical Outline

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 **OKY T/3, T/5-W5 Series**
Adjustable Output 3 and 5-Amp DOSA-SMT PoLs

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