

Typical unit

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.

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 capacitive loads
- High power conversion efficiency 94% at 3.3 Vout
- 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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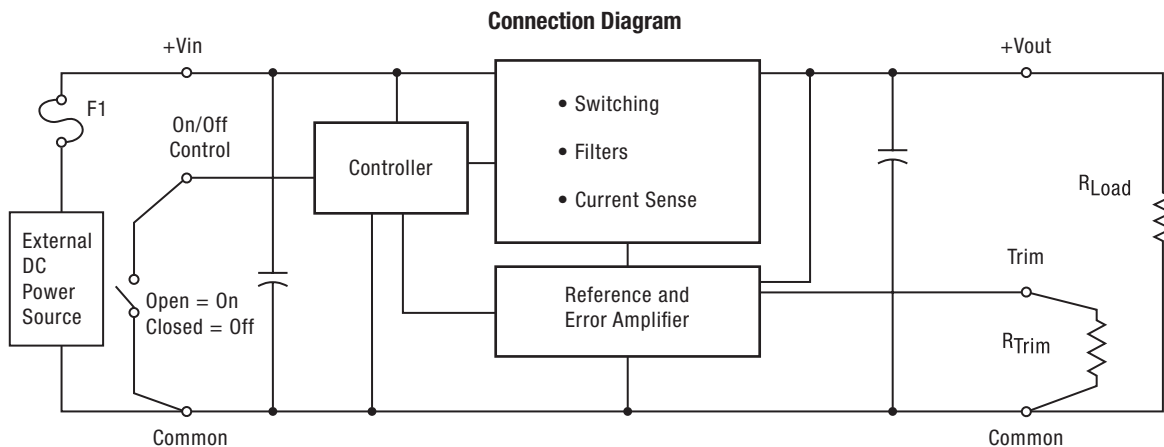


Figure 1. OKY-T/3, -T/5

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



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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)			Case C72 ①	Pinout
				Max.	Line	Load					Min.	Typ.		
OKY-T/3-W5N-C	0.7525-3.63 ⑥	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 ⑥	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 ⑥	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 ⑥	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.

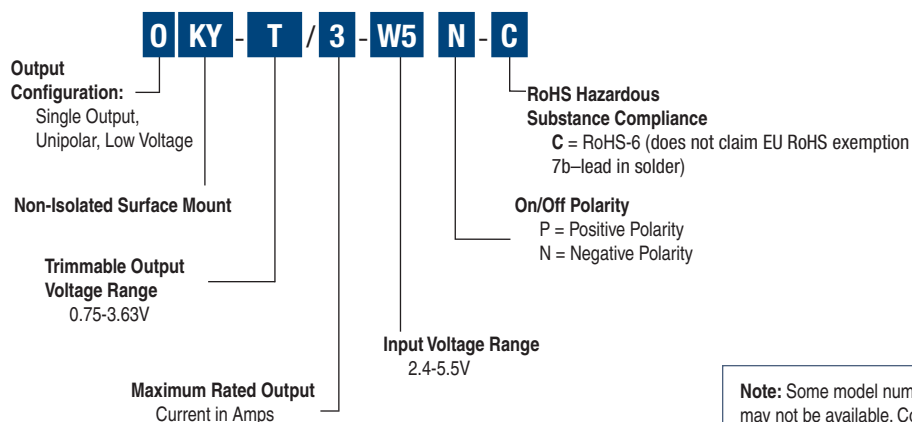
I/O caps are necessary for our test equipment and may not be needed for your application.

④ V_{IN} must be 0.5V or higher than V_{OUT}.

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

⑥ Output range is shown at 50% load.

PART NUMBER STRUCTURE



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

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MECHANICAL SPECIFICATIONS

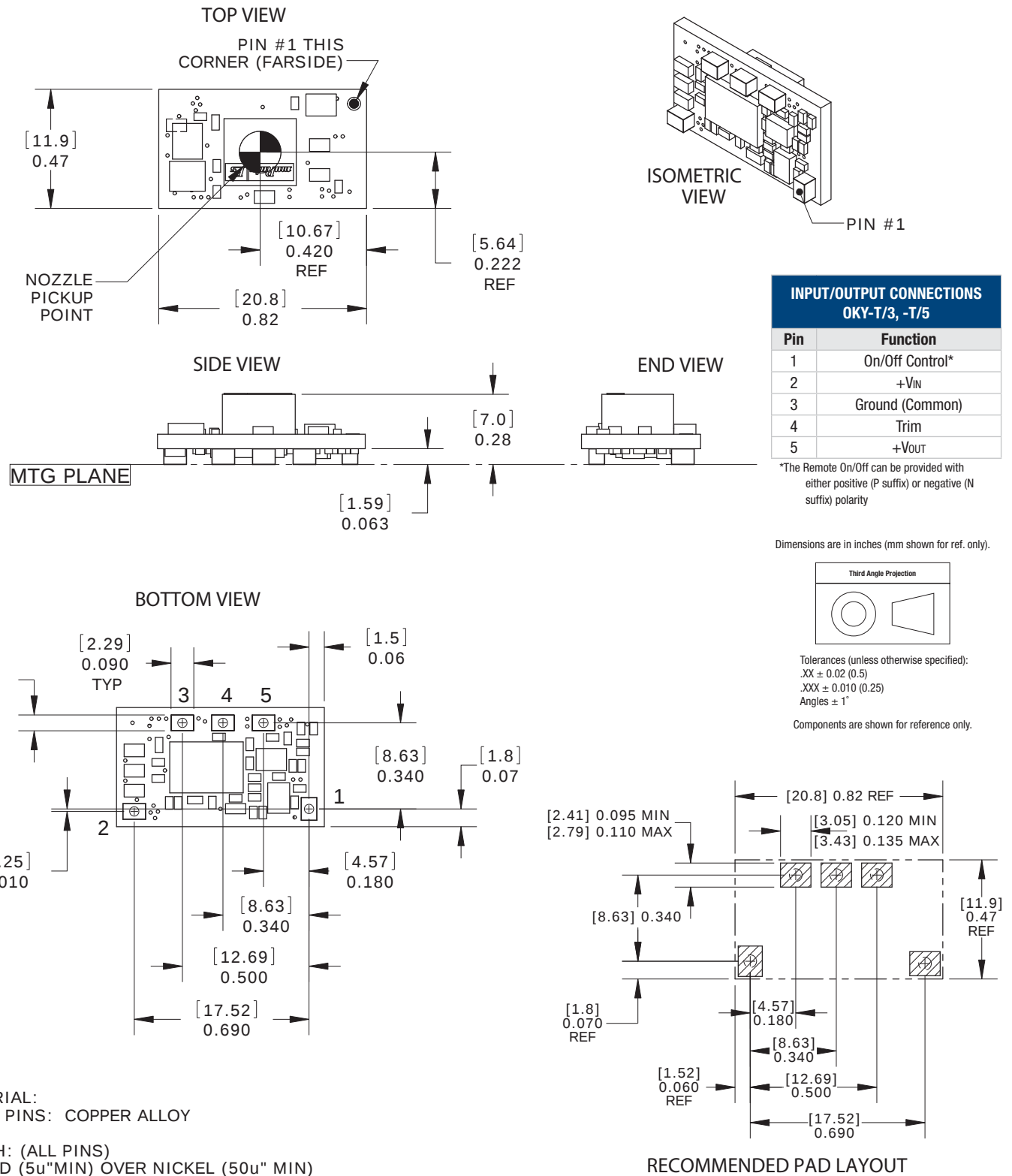


Figure 2. OKY-T/3, -T/5 Mechanical Outline

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Murata Power Solutions, Inc.

11 Cabot Boulevard, Mansfield, MA 02048-1151 U.S.A.

Tel: (508) 339-3000 (800) 233-2765 Fax: (508) 339-6356

www.murata-ps.com email: sales@murata-ps.com ISO 9001 and 14001 REGISTERED

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USA: Mansfield (MA), Tel: (508) 339-3000, email: sales@murata-ps.com
Canada: Toronto, Tel: (866) 740-1232, email: toronto@murata-ps.com
UK: Milton Keynes, Tel: +44 (0)1908 615232, email: mk@murata-ps.com
France: Montigny Le Bretonneux, Tel: +33 (0)1 34 60 01 01, email: france@murata-ps.com
Germany: München, Tel: +49 (0)89-544334-0, email: munich@murata-ps.com
Japan: Tokyo, Tel: 3-3779-1031, email: sales_tokyo@murata-ps.com
Osaka, Tel: 6-6354-2025, email: sales_osaka@murata-ps.com
China: Shanghai, Tel: +86 215 027 3678, email: shanghai@murata-ps.com
Guangzhou, Tel: +86 208 221 8066, email: guangzhou@murata-ps.com
Singapore: Parkway Centre, Tel: +65 6348 9096, email: singapore@murata-ps.com



www.murata-ps.com

Technical enquiries email: sales@murata-ps.com, tel: +1 508 339 3000