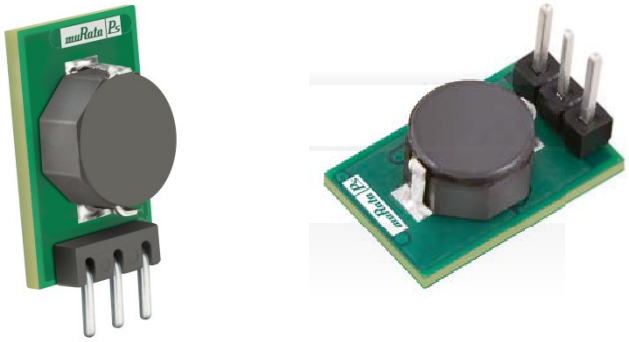
Murata Power Solutions

Okami OKI-78SR Series

Non-Isolated Switching Regulator DC-DC

New! 12V Model



Typical units

FEATURES

- 7-36Vin (3.3 & 5Vout), 15-36Vin (12Vout)
- Fixed Output: 3.3 or 5V @ 1.5A or 12V @ 1.0A
- Vertical SIP or horizontal mount, small footprint package
- "No heat sink" direct replacement for 3-terminal 78xx-series linear regulators
- High efficiency with no external components
- Short circuit protection
- Outstanding thermal derating performance
- UL/EN/IEC 60950-1, 2nd Edition safety approvals

PRODUCT OVERVIEW

Fabricated on a 0.41 x 0.65 inch (10.4 x 16.5 mm) Single Inline Package (SIP) module, the OKI-78SR series are non-isolated switching regulator (SR) DC-DC power converters for embedded applications. The fixed single output converters offer both tight regulation and high efficiency directly at the power usage site and are a direct plug-in replacement for TO-220 package 78xx series linear regulators. Typically, no extra outside components are required.

Three nominal output voltages are offered (3.3, 5 and 12 VDC), up to 1.5 Amp maximum output. Based on fixed-frequency buck switching topology, the high efficiency means very low heat and little electrical noise, requiring no external components. The 3.3 and 5Vout models have an ultra wide input range of 7 to 36 Volts DC and the 12Vout model has an input voltage range of 15 to 36V.

Protection features include short circuit current limit protection. The OKI-78SR is designed to meet all standards approvals. RoHS-6 (no lead) hazardous material compliance is specified as standard.

Connection Diagram

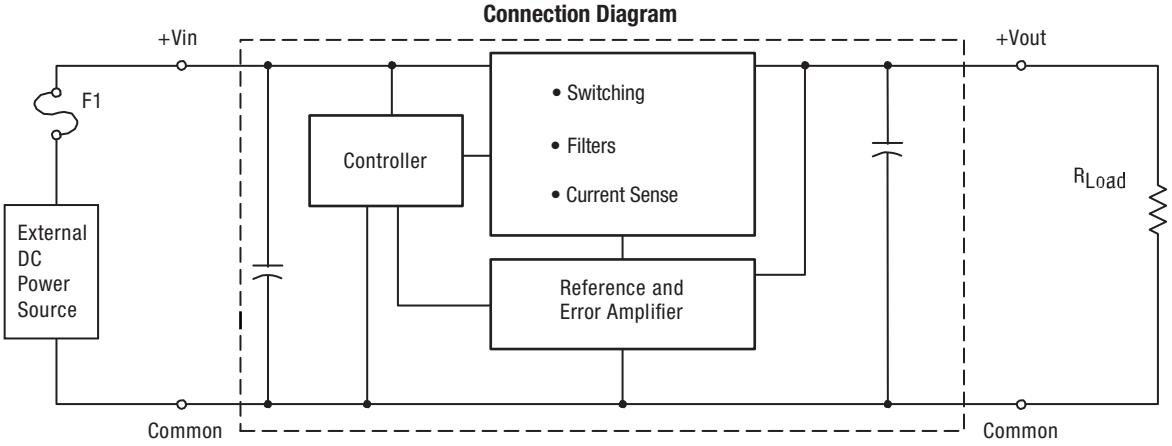


Figure 1. OKI-78SR

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

RoHS COMPLIANT

For full details go to www.murata-ps.com/rohs

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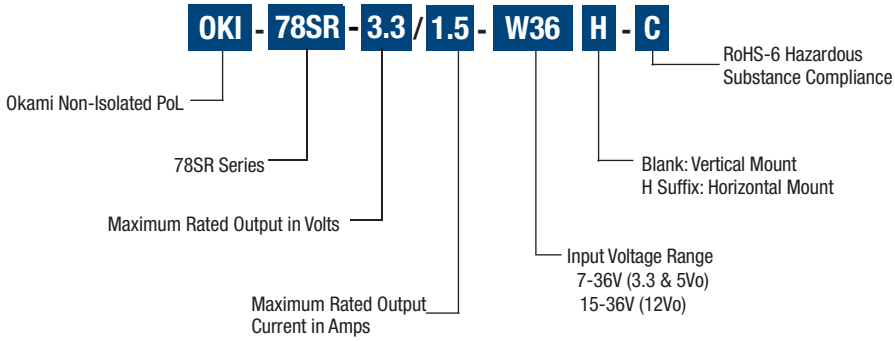
FUNCTIONAL SPECIFICATIONS SUMMARY AND ORDERING GUIDE

Root Model	Output						Input				Efficiency		Package Inches (mm)
	V_{OUT} (Volts)	I_{OUT} (Amps max)	Power (Watts)	R/N (mVp-p) Max.	Regulation (Typ.) Line	Regulation (Typ.) Load	V_{IN} Nom. (Volts)	Range (Volts)	I_{IN}, no load (mA)	I_{IN}, full load (Amps)	Min.	Typ.	
OKI-78SR-3.3/1.5-W36-C	3.3	1.5	4.95	40	±0.25%	±0.40%	12	7-36	5	0.48	84%	85.5%	0.41 x 0.3 x 0.65 (10.4 x 7.62 x 16.5)
OKI-78SR-5/1.5-W36-C	5	1.5	7.5	75	±0.25%	±0.40%	12	7-36	5	0.69	89%	90.5%	0.41 x 0.3 x 0.65 (10.4 x 7.62 x 16.5)
NEW **OKI-78SR-12/1.0-W36-C**	12	1.0	12	75	±0.25%	±0.25%	24	15-36	5	0.53	93.5%	95.3%	0.41 x 0.3 x 0.65 (10.4 x 7.62 x 16.5)

NOTE: All specifications are at nominal line voltage, Vout = nominal and full load, +25°C.with no external capacitor, unless otherwise noted.

PART NUMBER STRUCTURE



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

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:
The label contains three rows of information:

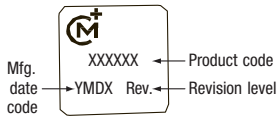


Figure 2. Label Artwork Layout

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
OKI-78SR-3.3/1.5-W36-C	I33115
OKI-78SR-5/1.5-W36-C	I50115
OKI-78SR-12/1.0-W36-C	I12110
OKI-78SR-3.3/1.5-W36H-C	I33115H
OKI-78SR-5/1.5-W36H-C	I50115H
OKI-78SR-12/1.0-W36H-C	I12110H

The manufacturing date code is four characters:

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