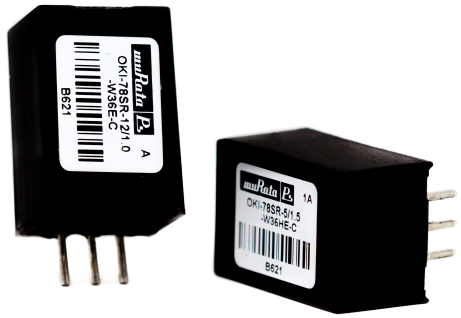
Murata Power Solutions

Okami OKI-78SR-E Series

Encapsulated Non-Isolated Switching Regulator DC-DC



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, in an Encapsulated 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

Encapsulated in a 0.47 x 0.69 inch (11.9 x 17.6 mm) vertical or horizontal package, the OKI-78SR-E 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-E is designed to meet all standards approvals. RoHS-6 (no lead) hazardous material compliance is specified as standard.

Connection Diagram

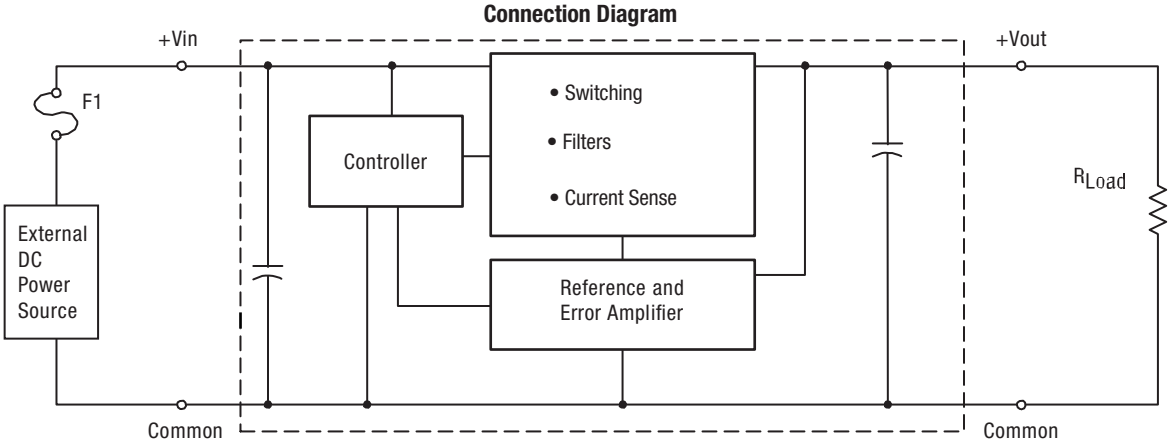


Figure 1. OKI-78SR-E

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

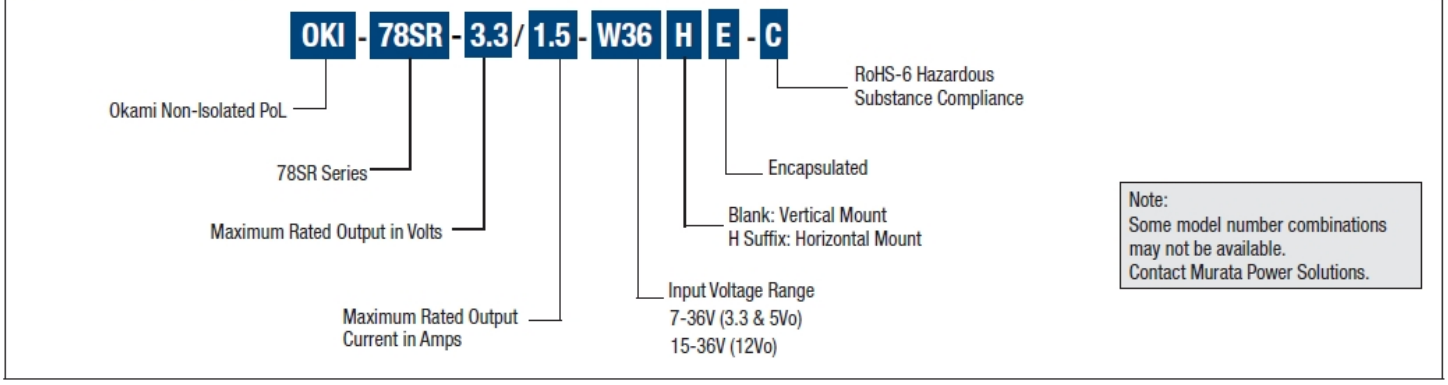
(Pending)

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-W36E-C	3.3	1.5	4.95	40	±0.30%	±0.40%	12	7-36	5	0.48	84%	85.5%	0.47 x 0.40 x 0.69 (11.9 x 10.0 x 17.6)
OKI-78SR-5/1.5-W36E-C	5	1.5	7.5	75	±0.30%	±0.40%	12	7-36	5	0.69	89%	90.5%	0.47 x 0.40 x 0.69 (11.9 x 10.0 x 17.6)
OKI-78SR-12/1.0-W36E-C	12	1.0	12	75	±0.25%	±0.25%	24	15-36	5	0.53	93.5%	95.3%	0.47 x 0.40 x 0.69 (11.9 x 10.0 x 17.6)

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: Please click here to view the data sheet for the OKI-78SR "Open-frame" series.