Features

- Low Profile 4.5mm
- Efficiency up to 87 %
- Wide Input Range (5V - 36V)
- Short Circuit Protection

Selection Guide

Part Number	Input Range (VDC)	Output Voltage (VDC)	Output Current (mA)	Efficiency (%)
ROF-78E3.3-0.5SMD	5 - 36	3.3	500	73 - 84
ROF-78E5.0-0.5SMD	9 - 36	5.0	500	79 - 87

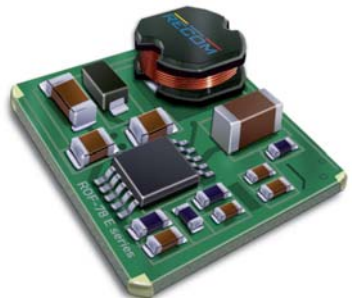
Specifications (measured at Ta=25°C, Full Load after Warm-Up)

Input Voltage Range		5 - 36 VDC (12/24V typ)
No Load Input Current		5mA max.
Maximum Input Current		0.5A max.
Short Input Current		200mA max.
Voltage Accuracy		±5% max.
Line Regulation	(LL to HL at Full Load)	±1% max.
Load Regulation	(10 ~ 100%)	±3% max.
Minimum Load		0%
Ripple & Noise	(20MHz Limited)	100mV max.
Transistent Response	100% ~ 50% Load	±100mV
(20MHz Limited)	100% ~ 10% Load	±200mV
Operating Frequency		650KHz typ.
ON/OFF Remoe Control Pin Drive Current	ON: Open or 3.3V or 5V OFF: GND	
Current Limit		950mA typ.
Short Circuit Protection		Auto Recovery
Operating Temperature		-40°C ~ 75°C
Storage Temperature		-55°C ~ 125°C
Humidity		95% RH
DImension (L x W x H)		12.5 x 13.5 x 4.5 mm
Weight		1g
Cooling Method		Free Air Convection
MTBF (25°C)	MIL-HDBK-217F	700 x 10^3 hours

INNOLINE
DC/DC-Converter

RECOM

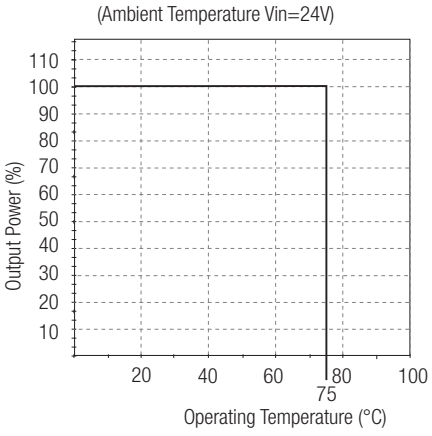
Non Isolated Power Module



RoHS 2002/95/EC 6/6

ROF-78E

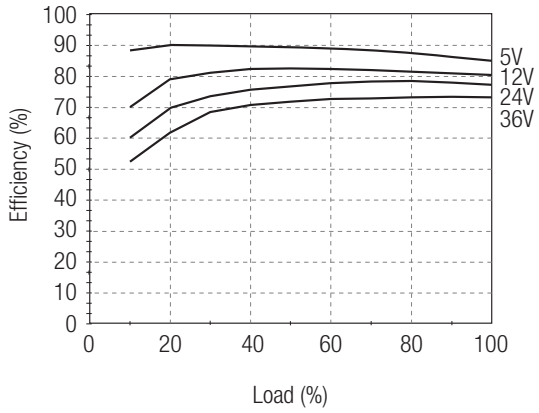
Derating-Graph
(Ambient Temperature)



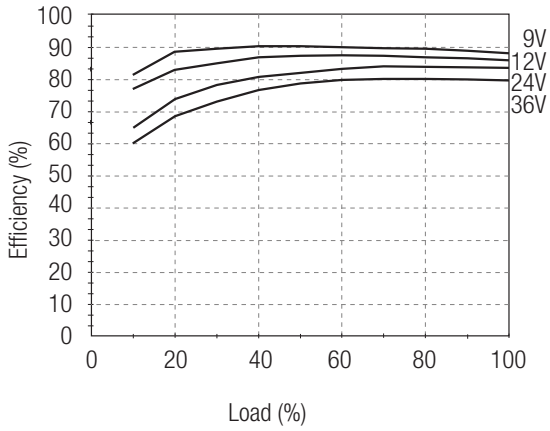
ROF-78Exx-0.5SMD Series

Characteristics

Efficiency

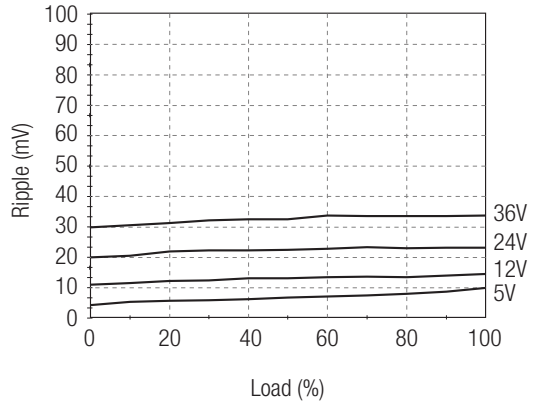


ROF-78E3.3-0.5SMD

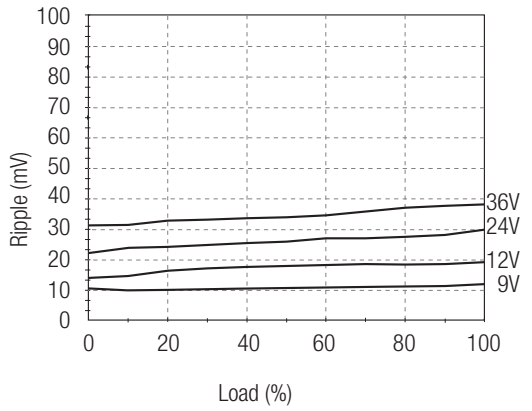


ROF-78E5.0-0.5SMD

Ripple



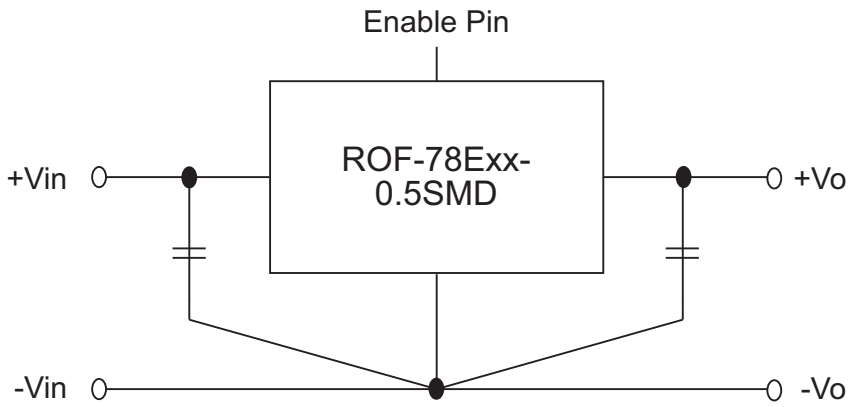
ROF-78E3.3-0.5SMD



ROF-78E5.0-0.5SMD

Applications

Standard Application Circuit

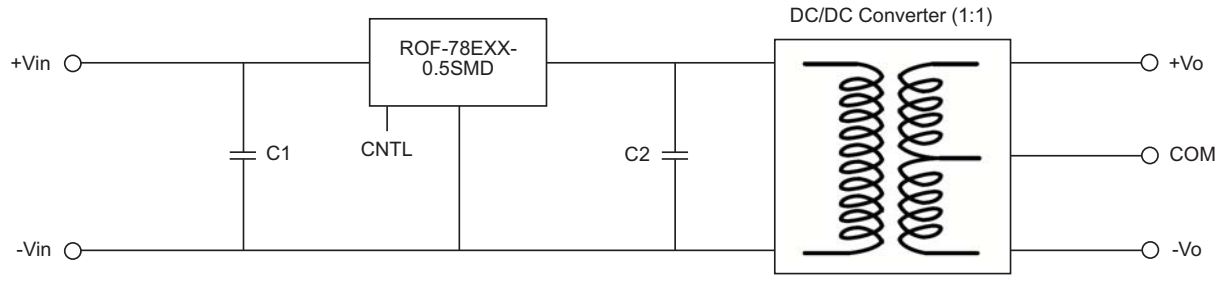


ROF-78Exx-0.5SMD Series

Applications

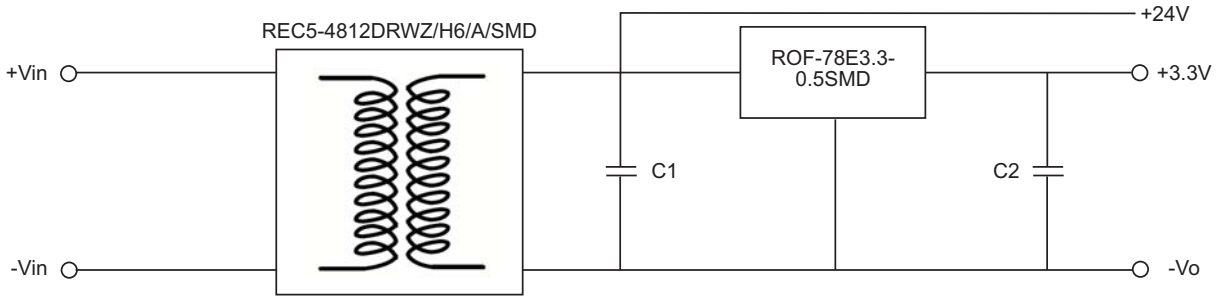
Recommended Application

High efficiency, isolated, dual unregulated outputs



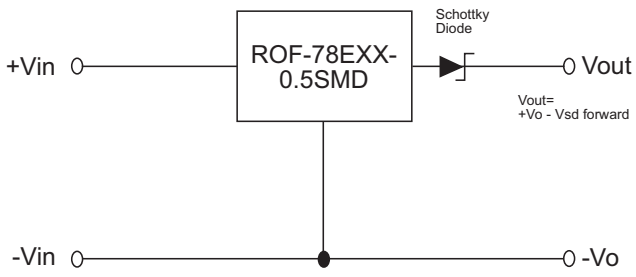
*Isolated dual output
*Wide Input Range

Isolated (Up to 6KV), wide input range regulated output

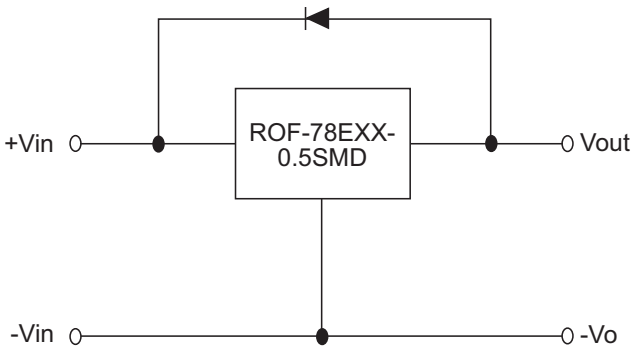


*High Isolated voltage
*Improved loading / line regulation
*Wide Input voltage range
*Point-of-Load Architecture

Optional Protection Circuit



Add a blocking diode to Vout if current can flow backwards into the output, as this can damage the converter when it is powered down.

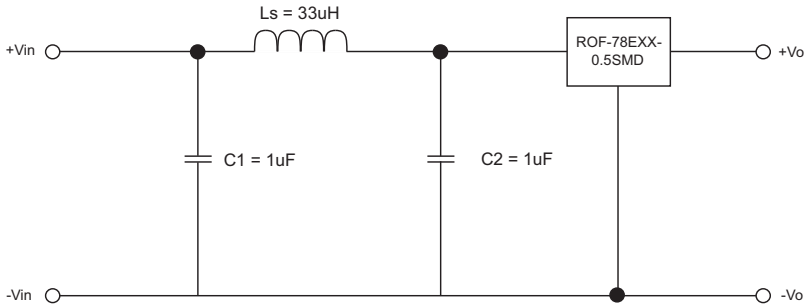


The Diode can either be fitted across the device if the source is low impedance or fitted in series with the output.

Applications

Conduction / Radiation Emission Filer Suggestion

Suggestion for conduction Emission Class A, meet radiation emission Class B

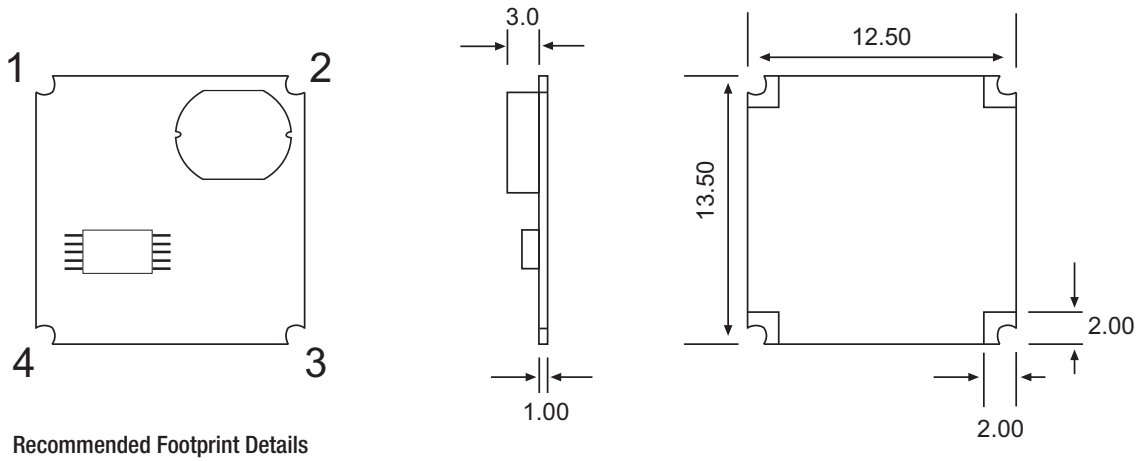


The Capacitor used ceramic capacitor, rated voltage 50V

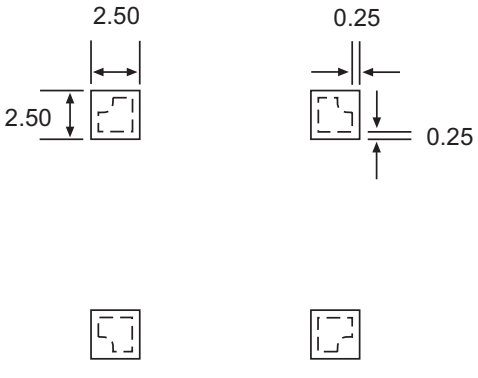
Package Style and Pinning (mm)

ROF-78EXX-0.5SMD
Surface Mount Package

3rd angle projection



Recommended Footprint Details



Pin Connections

Pin #	Out
1	+Vin
2	GND
3	+Vout
4	EN

XX.X ± 0.5 mm
XX.XX ± 0.25 mm