

# Features

- Efficiency up to 91%, no need for heatsinks!
- Pin-out compatible with LM78XX Linear Regs.
- Low profile (L\*W\*H=11.6\*8.5\*10.4mm)
- Wide input range (8V - 28V)
- Short Circuit Protection

## Description

The R-78E series is a switching regulator module that has been designed to offer all the advantages of a switching regulator (high efficiency, wide input range, accurate output voltage regulation) but with a low cost for production quantities. Due to the R-78E's high efficiency of up to 91% at an output voltage of 5V/1A at the output, no heat sink is required. The compact TO-220 compatible SIP3 package measures only 11.6 x 8.5 x 10.4 mm, so it saves precious board space. The warranty is 3 years.

## Selection Guide

Part Number SIP3	Input Voltage Range (V)	Output Voltage (V)	Output Current (A)	Efficiency min. (%)
R-78E5.0-1.0	8-28	5	1.0	91

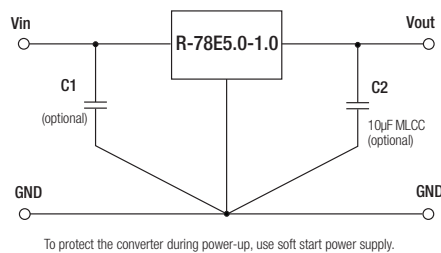
## Specifications (measured @ 25°C, at nominal input voltage 24V after warm-up time unless otherwise states )

Characteristics	Conditions	Min.	Typ.	Max.
Short Circuit Protection				Automatic Restart
Output Voltage Accuracy				±5%
Line Regulation	(@ Full load)			±1%
Load Regulation	(10-100%)			±1.5%
Ripple & Noise (20Mhz BW, @ Full load, 10uF MLCC)				75mVp-p typ.
Switching Frequency				330kHz
Operating Temperature Range				-40°C to +85°C
Storage Temperature Range				-40°C to +125°C
Dimensions (LxWxH)				11.6 x 8.5 x 10.4mm
Weight				2g

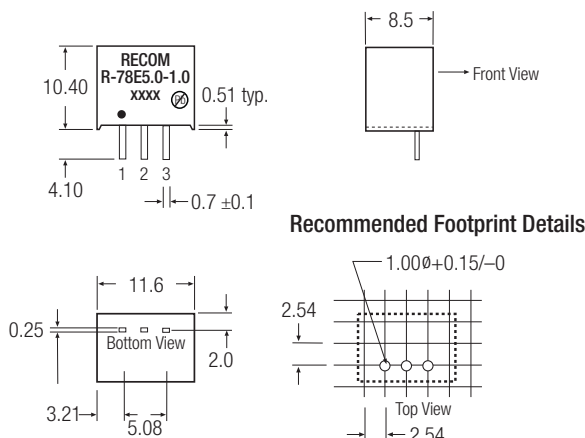
### Certifications:

IEC/EN General Safety Report: SPCLVD1407030-1 IEC/EN60950-1, 2nd Edition

## Standard Application



## Package Style and Pinning (mm)



### Pin Connections

Pin #	Connection
1	+Vin
2	GND
3	+Vout

xx.x ± 0.5mm  
xx.xx ± 0.25mm

# INNOLINE

## DC/DC-Converter

with 3 year Warranty

# RECOM

# 1.0 AMP

# Single

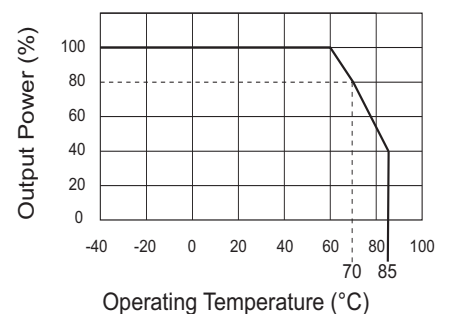
# Output



IEC/EN-60950-1 Certified

# R-78E-1.0

## Derating-Graph (Ambient Temperature)



Refer to Application Notes