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 $11.6 \times 8.5 \times 10.4 \, \text{mm}$, so it saves precious board space. The warranty is 3 years.

Selection Guide

Part	Input	Output	Output	Efficiency	
Number	Voltage Range	Voltage	Current	min.	
SIP3	(V)	(V)	(A)	(%)	
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.	Тур.	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, @ Fu		75	mVp-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	5 x 10.4mm	
Weight				2g	

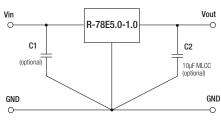
Certifications:

IEC/EN General Safety

Report: SPCLVD1407030-1

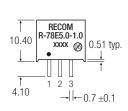
IEC/EN60950-1, 2nd Edition

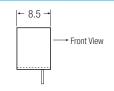
Standard Application



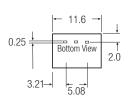
To protect the converter during power-up, use soft start power supply.

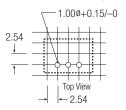
Package Style and Pinning (mm)





Recommended Footprint Details





Pin Connections			
Pin #			
1	+Vin		
2	GND		
3	+Vout		
$xx.x \pm 0.5$ mm $xx.xx \pm 0.25$ mm			

INNOLINEDC/DC-Converter

with 3 year Warranty



1.0 AMP Single Output



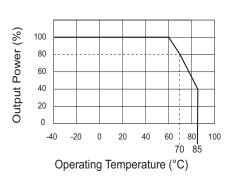


IEC/EN-60950-1 Certified

R-78E-1.0

Derating-Graph

(Ambient Temperature)



Refer to Application Notes

The product information and specifications are subject to change without prior notice. RECOM products are not authorized for use in safety-critical applications (such as life support) without RECOM's explicit written consent. A safety-critical application is defined as an application where a failure of a RECOM product may reasonably be expected to endanger or cause loss of life, inflict bodily harm or damage property. The buyer shall indemnify and hold harmless RECOM, its affiliated companies and its representatives against any damage claims in connection with the unauthorized use of RECOM products in such safety-critical applications.