

Features

Switching Regulator

- Efficiency up to 94%, no need for heatsinks
- Pin compatible with LM78XX linears
- Low profile (L/W/H=11.5 x 7.55 x 10.2mm)
- Wide input range
- Short circuit protection, thermal shutdown
- Low ripple and noise
- IEC/EN60950-1 certified



R-78-1.0

1.0 Amp
SIP3
Single Output



Description

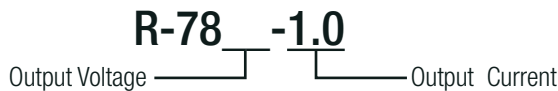
The R-78xx-1.0 series switching regulators are ideally suited to replace 1 Amp 78xx linear regulators and are pin compatible. Efficiencies of up to 94% mean that very little energy is wasted as heat so there is no need for any heat sinks with their additional space and mounting costs.

Selection Guide

Part Number	Input Voltage Range [VDC]	Output Voltage [VDC]	Output Current [A]	Efficiency	
				@ min Vin [%]	@ max. Vin [%]
R-781.8-1.0	4.75 - 18	1.8	1.0	82	76
R-782.5-1.0	4.75 - 18	2.5	1.0	87	81
R-783.3-1.0	4.75 - 18	3.3	1.0	90	84
R-785.0-1.0	6.5 - 18	5.0	1.0	94	89



Model Numbering



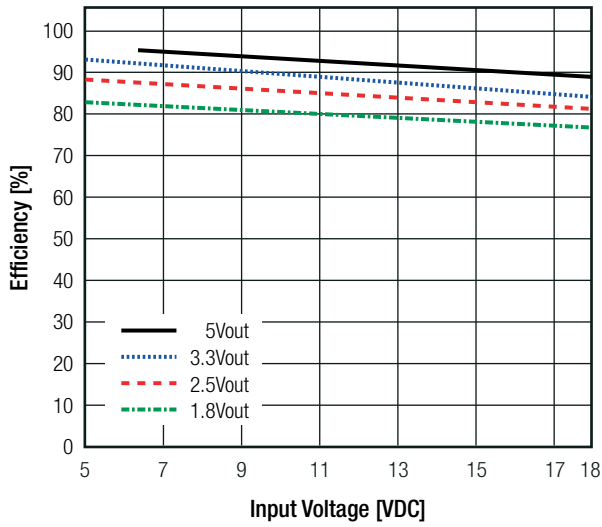
IEC/EN60950-1 certified
EN55032 compliant

Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

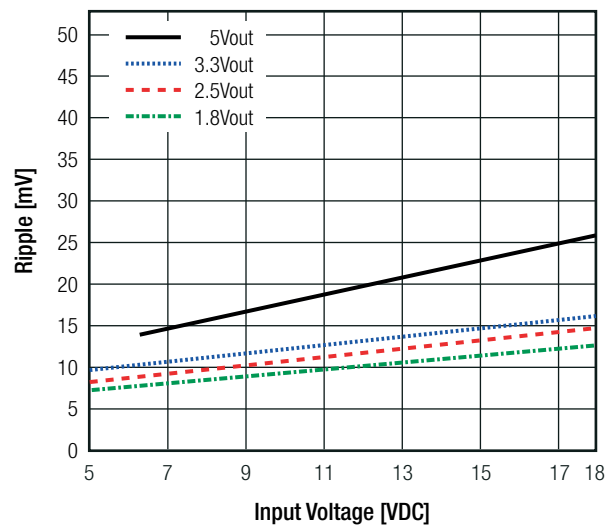
BASIC CHARACTERISTICS				
Parameter	Condition	Min.	Typ.	Max.
Quiescent Current	Vin = min. to max. at 0% load		5mA	7mA
Internal Power Dissipation				0.4W
Minimum Load ⁽¹⁾		0%		
Internal Operating Frequency		280kHz	350kHz	430kHz
Output Ripple and Noise	measured at 20MHz BW		20mVp-p	30mVp-p
Absolute Maximum Capacitive Load	1 second start up, no external components			220µF
	<1 second start up + diode protection circuit			6800µF
Notes: Note1: Operation under no load will not harm the converter, but specifications may not be met A minimum load of 10mA is recommended				
continued on next page				

Specifications (measured @ Ta= 25°C, 10% minimum load, unless otherwise stated)

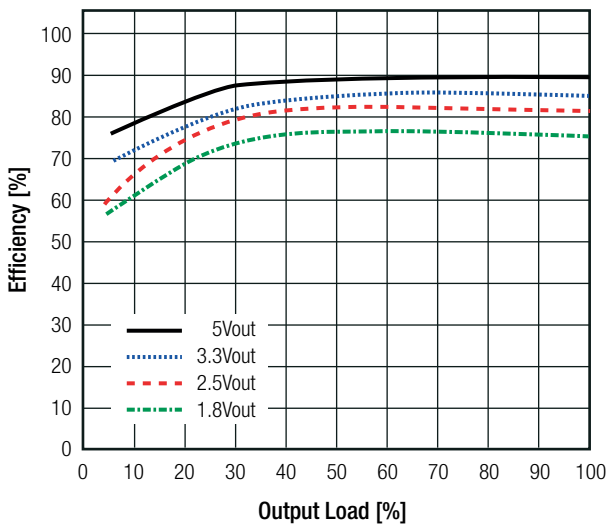
Efficiency vs. Vin (full load)



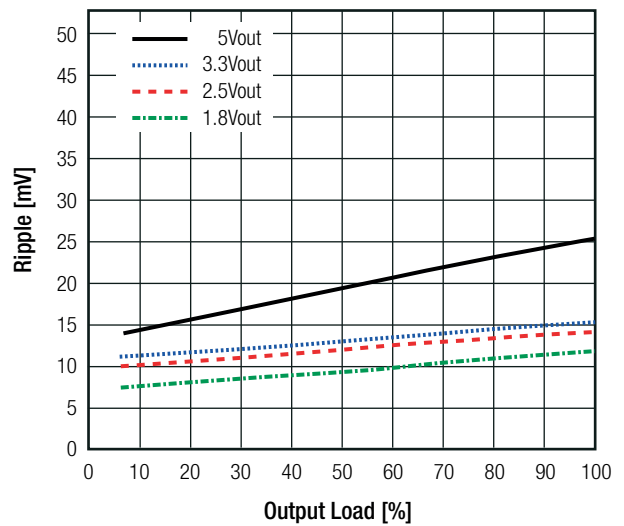
Ripple vs. Vin (full load)



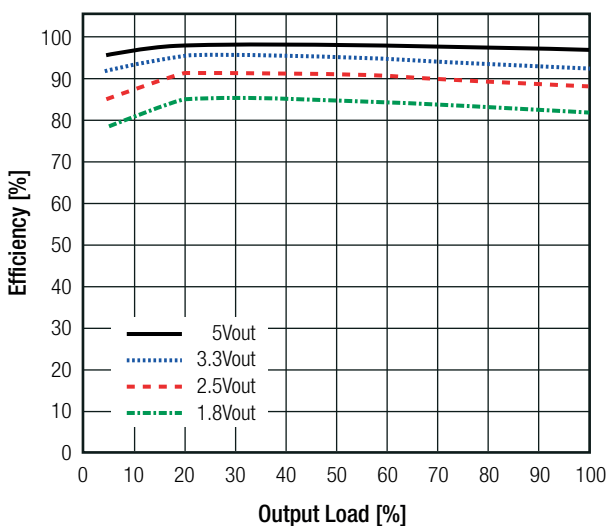
Efficiency vs. Load (max. Vin)



Ripple vs. Load (max. Vin)



Efficiency vs. Load (min. Vin)



Ripple vs. Load (min. Vin)

