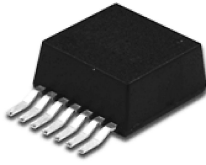
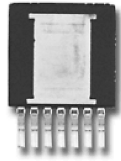


3A Simple Switcher® Power Module with 20V Maximum Input Voltage

Easy to use 7 pin package



Top View



Bottom View

TO-PMOD 7 Pin Package
 10.16 x 13.77 x 4.57 mm (0.4 x 0.542 x 0.18 in)
 $\theta_{JA} = 20^{\circ}\text{C/W}$, $\theta_{JC} = 1.35^{\circ}\text{C/W}$
 RoHS Compliant

30109086

Electrical Specifications

- 18W maximum total power output
- Up to 3A output current
- Input voltage range 4.5V to 20V
- Output voltage range 0.8V to 6V
- 2% output accuracy over temperature
- Efficiency up to 92%

Key Features

- Integrated shielded inductor
- Simple PCB layout
- Flexible startup sequencing using external soft-start capacitor and precision enable
- Protection against inrush currents and faults such as input UVLO and output short circuit
- -40°C to 80°C operating temperature at full load
- Single exposed pad and standard pinout for easy mounting and manufacturing
- Fast transient response for FPGAs and ASICs
- Low output voltage ripple
- Pin-to-pin compatible family:
 LMZ14203/2/1 (42V max 3A, 2A, 1A)
 LMZ12003/2/1 (20V max 3A, 2A, 1A)
- Fully Webench® Power Designer enabled

Applications

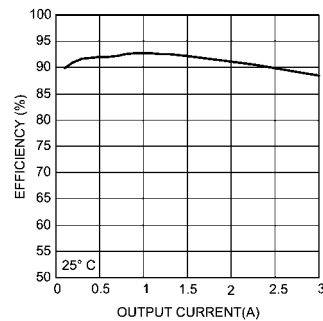
- Point of load conversions from 6V and 12V input rail
- Time critical projects
- Space constrained high thermal requirement applications
- Negative output voltage applications

Performance Benefits

- Operates at high ambient temperature with no thermal derating
- High efficiency reduces system heat generation
- Low radiated emissions (EMI) complies with EN55022 class B standard
- Passes 10V/m radiated immunity EMI test standard EN61000 4-3

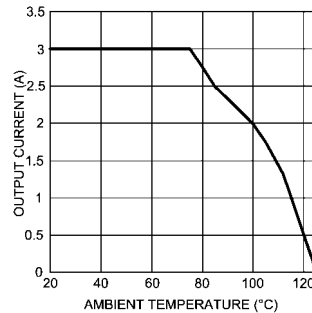
System Performance

Efficiency $V_{IN} = 12\text{V}$ $V_{OUT} = 5.0\text{V}$,



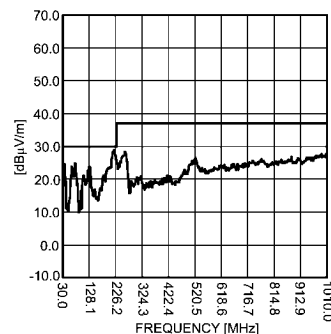
30109018

Thermal derating curve
 $V_{IN} = 12\text{V}$ $V_{OUT} = 5.0\text{V}$



30109019

Radiated Emissions (EN 55022 Class B)
 Evaluation Board



30109020

Notes

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LED Lighting	www.national.com/led	Feedback/Support	www.national.com/feedback
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