Würth Elektronik eiSos GmbH & Co. KG
EMC & Inductive Solutions
Max-Eyth-Straße 1 · 74638 Waldenburg · Germany
Tel. +49 (0) 79 42 945-0 · Fax +49 (0) 79 42 945-400
eiSos@we-online.de · www.we-online.de

Product/Process Change Notice (PCN)

☒ Major change
☐ Minor change

PCN #: PCN_VDRM_20180201

Product Affected: 171020601

PCN Date: December 18th, 2017

Effective Date: February 1st, 2018

☐ Product Mark
☐ Date Code
☐ Packaging
☒ Others

Contact: Product Management

Phone: +49 (0) 7942 - 945 5001

Fax: +49 (0) 7942 - 945 5179

E-mail: pcn.eisos@we-online.de /

Attachment: ☐ Yes ☒ No

Samples:

DESCRIPTION AND PURPOSE OF CHANGE:

In the continuous process of offering more value to our customers,

Würth Elektronik has enlarged the technical content of the MagI³C power module 171 020 601 (TO263 2.0A 5Vout) datasheet significantly.

In addition the electrical specifications of the reference voltage has been adjusted to a tighter max value.

There will be no change in form, fit, quality or reliability of the product.

DETAIL OF CHANGE:

Changed reference voltage over temperature spec. from
(min. 0.784V; typ. 0.804V; max. 0.825V) to
(min. 0.775V; typ. 0.795V; max. 0.815V)
This has no impact on existing designs. No changes of the application circuitry have to be applied.

No further changes in the electrical specifications have been done.

Additional information has been included in the datasheet:

- Bookmarks have been activated for quick chapter navigation
- Package bottom view has been added
- Marking description has been added
- Ordering information of related family members has been added
- Electrical specifications table has been structured in sections in order to improve readability
- All electrical performance curves have been measured with higher resolution and presented with improved readability
- Line and load regulation diagrams have been added
- Links for equations, chapters, parameters, etc. have been implemented for easy navigation within the document

Würth Elektronik eiSos GmbH & Co. KG
EMC & Inductive Solutions
Max-Eyth-Straße 1 · 74638 Waldenburg · Germany
Tel. +49 (0) 79 42 945-0 · Fax +49 (0) 79 42 945-400
eiSos@we-online.de · www.we-online.de

- Added diagram of switching frequency versus R_{ON}
- Added diagram of efficiency versus switching frequency
- Output capacitor selection approach is explained and mathematically calculated based on ripple and transient requirements
- Load transition waveforms are displayed. A practical example is calculated and measured waveforms are presented.
- Effect of soft-start is shown
- Light load operation description has been added with inductor current diagrams showing the effect on the output voltage ripple
- Overvoltage protection, overcurrent protection, short circuit protection and startup into pre-biased load are described in detail and graphs have been added
- Layout section has been upgraded with more details, close up PCB pictures and additional recommendations
- EVAL board description has been extended with an explanation of the circuit and operational instructions
- EMI Filter design section has been added

RELIABILITY / QUALIFICATION SUMMARY:

Product specification approval, according to internal requirements, has been released by the Quality Department and the Product Management Department.

DATA SHEET CHANGE: ☒ Yes ☐ No