

Dear Customer,

With this INFINEON Technologies Errata Note we would like to inform you about the following

EiceDRIVER™ 1ED31xxMc12H R_{DSON} parameter update in datasheet

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N° 10246AERRA

EiceDRIVER™ 1ED31xxMc12H $R_{\text{DS(on)}}$ parameter update in datasheet

► **Products affected:** Please refer to attached affected product list 1_cip10246.xlsx

► **Detailed Change Information:**

Subject: EiceDRIVER™ 1ED31xxMc12H $R_{\text{DS(on)}}$ parameter update

Reason: Original values did not reflect min/max values over full temperature range and product variation

Description:

<u>Old 1ED31xxMc12H</u>	<u>New</u>
<ul style="list-style-type: none"> ■ <i>xx=20,21, and 31</i> $R_{\text{DS(on),H,max}} = 1.2 \Omega$ $R_{\text{DS(on),L,max}} = 0.9 \Omega$ 	<ul style="list-style-type: none"> ■ <i>xx=20,21, and 31</i> $R_{\text{DS(on),H,max}} = 1.45 \Omega$ $R_{\text{DS(on),H,max}} = 1.05 \Omega$
<ul style="list-style-type: none"> ■ <i>xx=22</i> $R_{\text{DS(on),H,max}} = 0.8 \Omega$ $R_{\text{DS(on),L,max}} = 0.75 \Omega$ $R_{\text{DS(on),L,min}} = 0.35 \Omega$ 	<ul style="list-style-type: none"> ■ <i>xx=22</i> $R_{\text{DS(on),H,max}} = 0.85 \Omega$ $R_{\text{DS(on),H,max}} = 0.76 \Omega$ $R_{\text{DS(on),L,min}} = 0.33 \Omega$
<ul style="list-style-type: none"> ■ <i>xx=23 and 24</i> $R_{\text{DS(on),H,max}} = 0.6 \Omega$ $R_{\text{DS(on),H,min}} = 0.30 \Omega$ $R_{\text{DS(on),L,min}} = 0.25 \Omega$ 	<ul style="list-style-type: none"> ■ <i>xx=23 and 24</i> $R_{\text{DS(on),H,max}} = 0.65 \Omega$ $R_{\text{DS(on),H,min}} = 0.27 \Omega$ $R_{\text{DS(on),L,min}} = 0.21 \Omega$

► **Impact of Change:** none

► **Attachments:** Affected product list 1_cip10246.xlsx
 Detailed Errata sheet 3_cip10246.pdf

► **Implementation Date:** 2021-03-01

If you have any questions, please do not hesitate to contact your local Sales office.

ERRATA 10246AERRA - EiceDRIVER™ 1ED31xxMc12H

Update of electrical parameters

About this document

Scope and purpose

This errata sheet shows the parameter updates required after product release to reflect the validity of parameters over temperature and product variation.

Intended audience

Engineers and circuit designers working with this product family.

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Errata

1 Errata

1.1 $R_{\text{DS(on)}}$ parameter update 1ED3120Mc12H, 1ED3121Mc12H, and 1ED3131Mc12H

The output on resistance value in the datasheet need updates for high level (source) and low level (sink) outputs.

Table 1 Parameter update for 1ED3120Mc12H, 1ED3121Mc12H, and 1ED3131Mc12H

Parameter	Symbol	From value	To value	Unit	Test condition
High level output on resistance, max	$R_{\text{DS(on),H,max}}$	1.20	1.45	Ω	$I_{\text{OUT,H}} = 0.1 \text{ A}$
High level output on resistance, min	$R_{\text{DS(on),H,min}}$	0.60	0.60	Ω	$I_{\text{OUT,H}} = 0.1 \text{ A}$
Low level output on resistance, max	$R_{\text{DS(on),L,max}}$	0.90	1.05	Ω	$I_{\text{OUT,L}} = 0.1 \text{ A}$
Low level output on resistance, min	$R_{\text{DS(on),L,min}}$	0.50	0.50	Ω	$I_{\text{OUT,L}} = 0.1 \text{ A}$

Workaround

There is no workaround.

Tracking reference

Datasheet for product variants 1ED31xxMU12H show this update from version v2.0 to v2.1. Datasheet for product variants 1ED31xxMC12H show this update already in version v2.0.

1.2 $R_{\text{DS(on)}}$ parameter update 1ED3122Mc12H

The output on resistance value in the datasheet need updates for high level (source) and low level (sink/clamp) outputs.

Table 2 Parameter update for 1ED3122Mc12H

Parameter	Symbol	From value	To value	Unit	Test condition
High level output on resistance, max	$R_{\text{DS(on),H,max}}$	0.80	0.85	Ω	$I_{\text{OUT,H}} = 0.1 \text{ A}$
High level output on resistance, min	$R_{\text{DS(on),H,min}}$	0.30	0.30	Ω	$I_{\text{OUT,H}} = 0.1 \text{ A}$
Low level output on resistance, max	$R_{\text{DS(on),L,max}}$	0.65	0.65	Ω	$I_{\text{OUT,L}} = 0.1 \text{ A}$
Low level output on resistance, min	$R_{\text{DS(on),L,min}}$	0.30	0.30	Ω	$I_{\text{OUT,L}} = 0.1 \text{ A}$
Low level clamp on resistance, max	$R_{\text{DS(on),L,max}}$	0.75	0.76	Ω	$I_{\text{CLAMP,L}} = 0.1 \text{ A}$
Low level clamp on resistance, min	$R_{\text{DS(on),L,min}}$	0.35	0.33	Ω	$I_{\text{CLAMP,L}} = 0.1 \text{ A}$

Workaround

There is no workaround.

Tracking reference

Datasheet for product variants 1ED31xxMU12H show this update from version v2.0 to v2.1. Datasheet for product variants 1ED31xxMC12H show this update already in version v2.0.

Errata
1.3 R_{DSON} parameter update 1ED3123Mc12H and 1ED3124Mc12H

The output on resistance value in the datasheet need updates for high level (source) and low level (sink) outputs.

Table 3 Parameter update for 1ED3123Mc12H and 1ED3124Mc12H

Parameter	Symbol	From value	To value	Unit	Test condition
High level output on resistance, max	$R_{\text{DSON,H,max}}$	0.60	0.65	Ω	$I_{\text{OUT,H}} = 0.1 \text{ A}$
High level output on resistance, min	$R_{\text{DSON,H,min}}$	0.30	0.27	Ω	$I_{\text{OUT,H}} = 0.1 \text{ A}$
Low level output on resistance, max	$R_{\text{DSON,L,max}}$	0.60	0.60	Ω	$I_{\text{OUT,L}} = 0.1 \text{ A}$
Low level output on resistance, min	$R_{\text{DSON,L,min}}$	0.25	0.21	Ω	$I_{\text{OUT,L}} = 0.1 \text{ A}$

Workaround

There is no workaround.

Tracking reference

Datasheet for product variants 1ED31xxMU12H show this update from version v2.0 to v2.1. Datasheet for product variants 1ED31xxMC12H show this update already in version v2.0.



Revision history

Revision history

Document version	Date of release	Description of changes
v1.0	2021-03-01	<ul style="list-style-type: none">Initial version

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**Do you have a question about any
aspect of this document?**

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ERRATA N° 10246AERRA
EiceDRIVER™ 1ED31xxMc12H RDSON parameter change in datasheet



Sales name	SP number	OPN	Package
1ED3120MU12H	SP005352070	1ED3120MU12HXUMA1	PG-DSO-8
1ED3121MU12H	SP005353276	1ED3121MU12HXUMA1	PG-DSO-8
1ED3122MU12H	SP005352068	1ED3122MU12HXUMA1	PG-DSO-8
1ED3123MU12H	SP005352072	1ED3123MU12HXUMA1	PG-DSO-8
1ED3124MU12H	SP005353278	1ED3124MU12HXUMA1	PG-DSO-8
1ED3131MU12H	SP005353280	1ED3131MU12HXUMA1	PG-DSO-8
1ED3120MC12H	SP001878178	1ED3120MC12HXUMA1	PG-DSO-8
1ED3121MC12H	SP001878188	1ED3121MC12HXUMA1	PG-DSO-8
1ED3122MC12H	SP001878172	1ED3122MC12HXUMA1	PG-DSO-8
1ED3123MC12H	SP001878182	1ED3123MC12HXUMA1	PG-DSO-8
1ED3124MC12H	SP001878200	1ED3124MC12HXUMA1	PG-DSO-8
1ED3131MC12H	SP003244266	1ED3131MC12HXUMA1	PG-DSO-8