

Bias supply DC-DC KIT_6W_12V_ICE5

Auxiliary supply solution featuring off-line
SMPS current mode controller IC with
800 V CoolMOS™ P7 SJ MOSFET

Description

KIT_6W_12V_ICE5



Ordering code:
KIT_6W_12V_ICE5

Board components

- › QR flyback PWM controller 5th generation ([ICE5QSAG](#))
- › 800 V CoolMOS™ P7 SJ MOSFET ([IPU80R4K5P7](#))

Board specifications

- › Input voltage: 90 V_{DC} - 400 V_{DC}
- › Output voltage: 12 V_{DC} (prim. and sec. side)
- › Output power max.: 6 W (prim. + sec. side)

To be used with the following boards

- › [EVAL_800W_ZVS_FB_CFD7](#)
- › [EVAL_2KW_ZVS_FB_CFD2](#)
- › [EVAL_2KW_ZVS_FB_CFD7](#)
- › [EVAL_2.5KW_CCM_4PIN](#)
- › [EVAL_2K5W_CCM_4P](#)

Product features

ICE5QSAG

Description:

- › Infineon latest 5th generation quasi-resonant flyback PWM controller offers high performance and comprehensive suite of protection to increase system robustness.

Summary of Features:

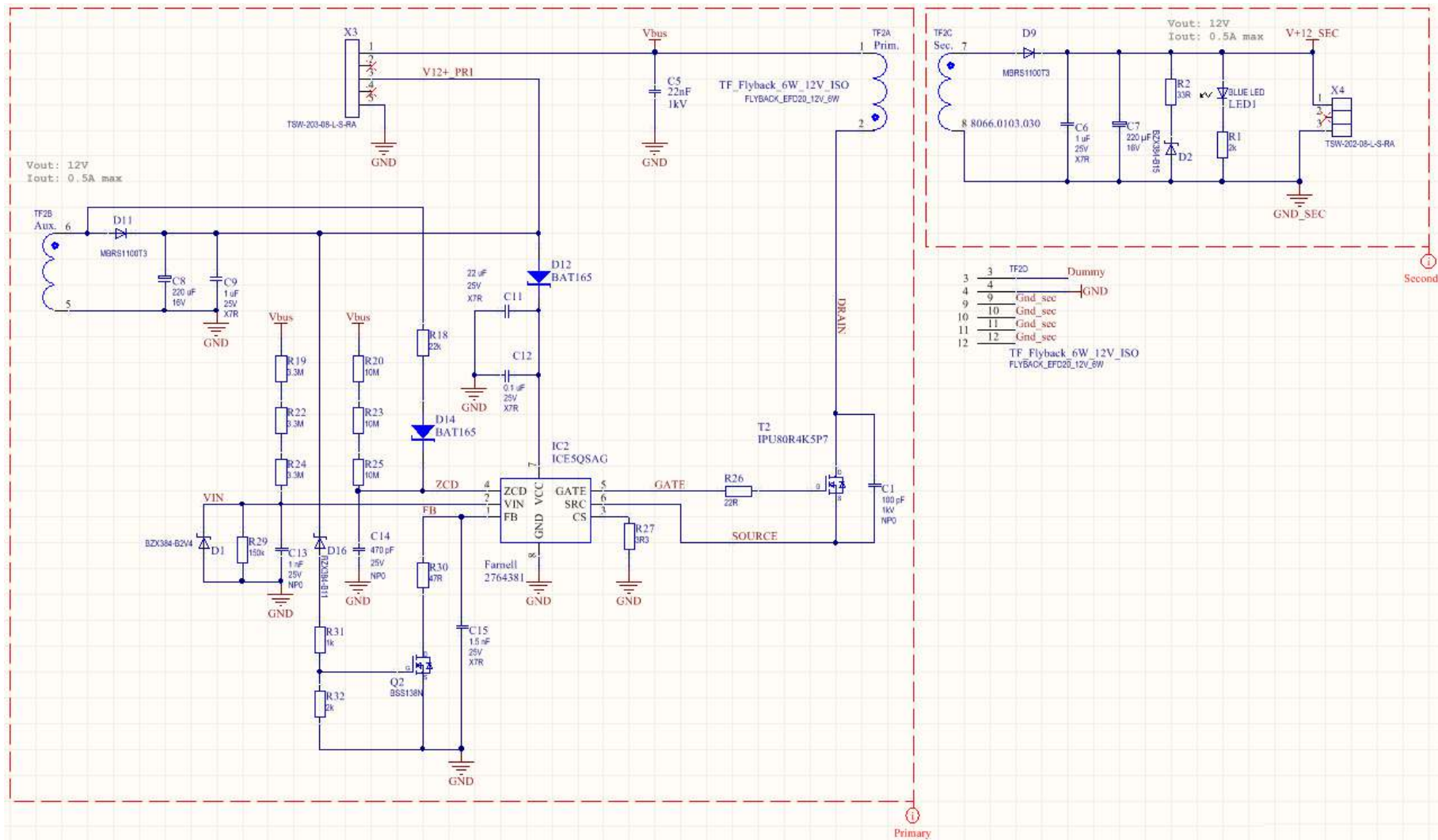
- › Novel quasi-resonant switching scheme
- › Rapid and adjustable start-up with cascode configuration
- › 2 level selectable active burst mode level
- › Built-in digital soft-start
- › Cycle by cycle peak current limitation
- › Digital frequency reduction with decreasing load for higher efficiency
- › Adjustable line input over-voltage and brown IN/OUT protection
- › V_{CC} and CS pin short to ground protection
- › OLP, output short, output over-voltage, OTP with hysteresis and V_{CC} over/under voltage protection
- › Auto-restart for all protection features



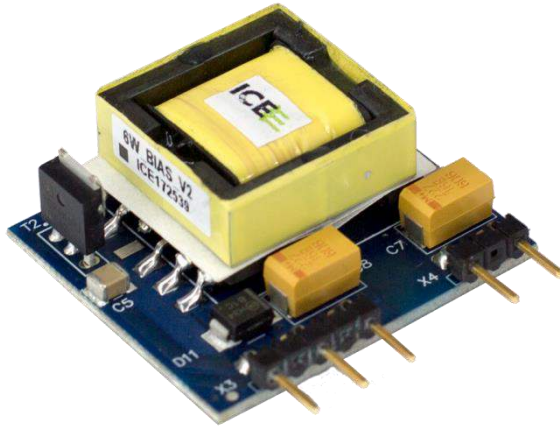
Benefits:

- › High efficiency with latest CoolMOS™ P7 SJ MOSFET family and quasi-resonant switching scheme
- › Auto-restart recovery scheme to minimize interruption to system operation
- › Extensive protection coverage to increase system robustness
- › Rapid start-up performance with cascode configuration

Schematic

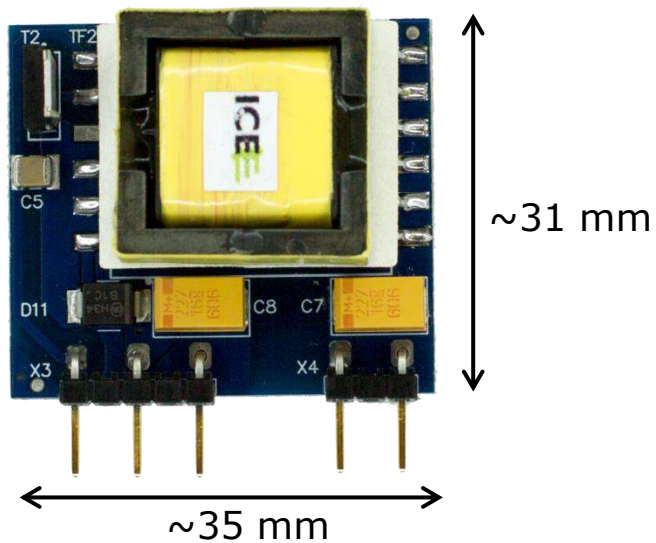


Base board KIT_6W_12V_ICE5



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Technical Material

- > Application Notes
- > Simulation Models
- > Datasheets
- > PCB Design Data

> [KIT 6W 12V ICE5](#)

Evaluation Boards

- > Evaluation Boards
- > Demoboards
- > Reference Designs

> www.infineon.com/evaluationboards

Videos

- > Technical Videos
- > Product Information Videos

> www.infineon.com/mediacenter

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The screenshot shows the Infineon website header with the following elements:

- Infineon logo
- Navigation menu: Products, Applications, **Tools** (highlighted with a red box and number 3), About Infineon, Careers
- Utility links: **Newsletter** (highlighted with a red box and number 1), Contact, **Where to Buy** (highlighted with a red box and number 2), English, Login
- Search bar with a magnifying glass icon

The main content area features a large image of a city skyline at night. Overlaid on the right side of the image is a teal box with the following text:

- Section: **Lighting**
- Text: "New LED controller enables low-wattage luminaire designs August 26th 17:00 CEST"
- Button: "Register Now!" with a right-pointing arrow

Navigation arrows are visible on the left and right sides of the main image area.

- 1 **Subscribe to Newsletter**
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 - Applications
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- **Power**
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 - ESD & EMI
 - Microcontroller
 - RF & Wireless Control
 - Security IC
 - Sensor
 - Smart Card IC
 - Interface
 - Transistor & Diode
- **Power Overview**
 - Power MOSFET
 - IGBT
 - Smart Low-Side & High-Side Switches
 - Linear Voltage Regulator
 - DC-DC Converter
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 - Silicon Carbide (SiC)
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