

3.8V-32V Vin, 3A Synchronous Step-down DCDC Converter with EMI Reduction

FEATURES

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|-----|---|---|
| BST | 6 | Power supply for the high-side power MOSFET gate driver. Must connect a 0.1uF or greater ceramic capacitor between BST pin and SW node. |
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RECOMMENDED OPERATING CONDITIONS

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ESD RATINGS

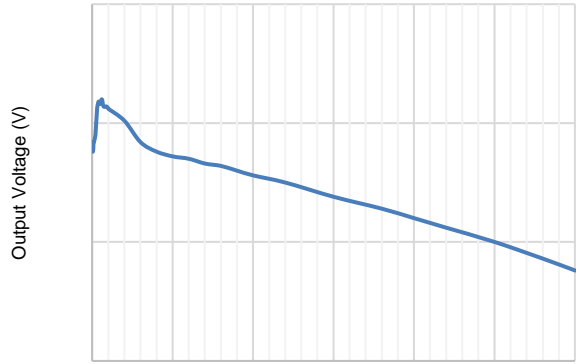
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- (1)
- (2)

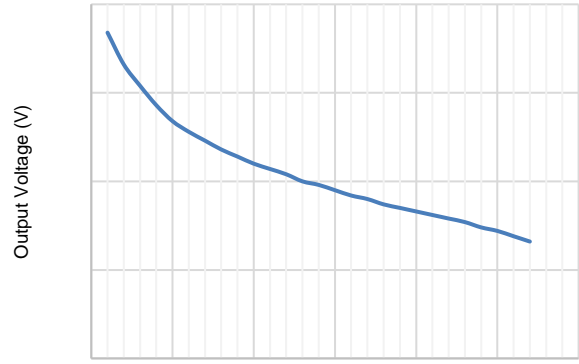
THERMAL INFORMATION

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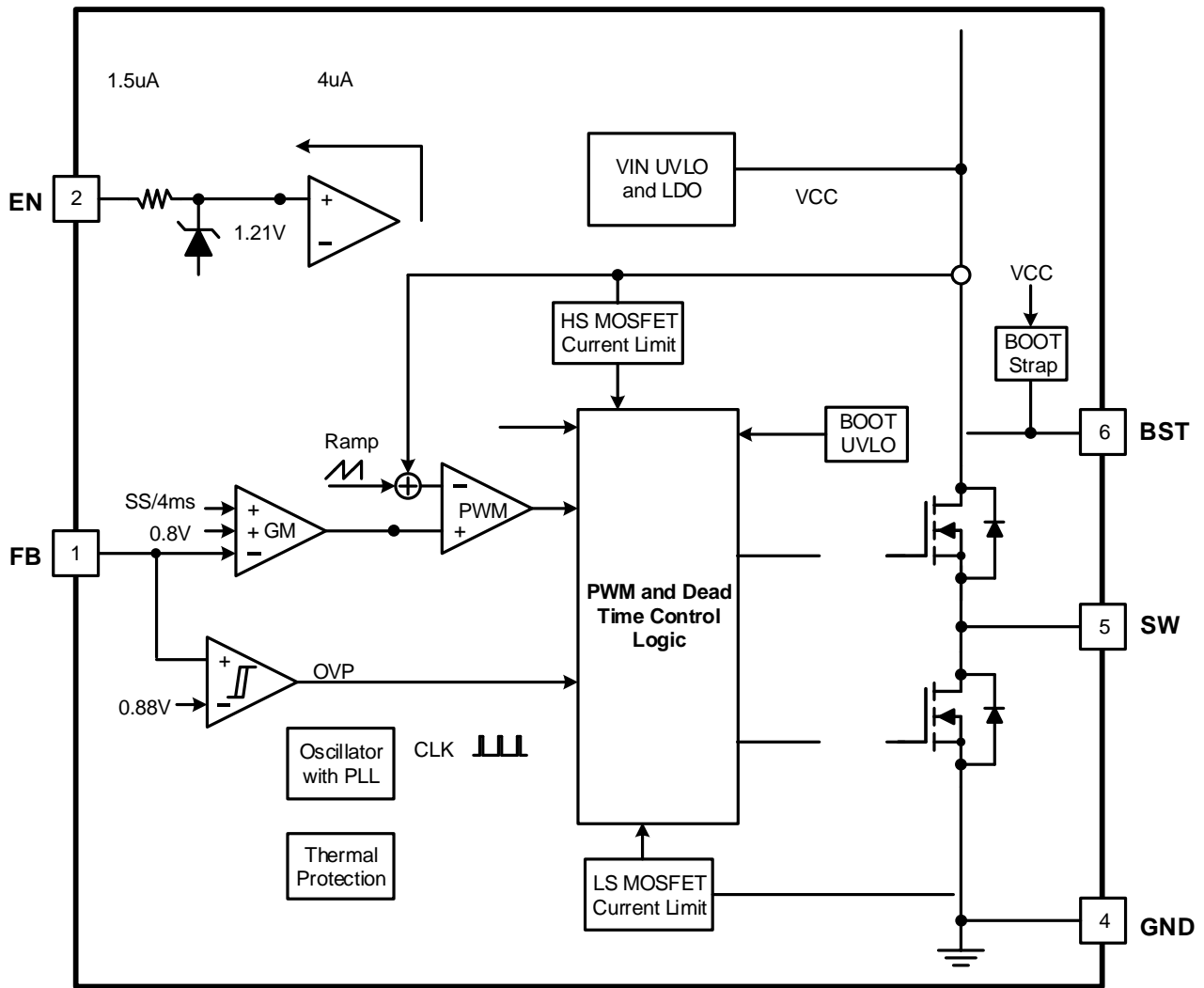


Output Current (mA)



Input Voltage (V)

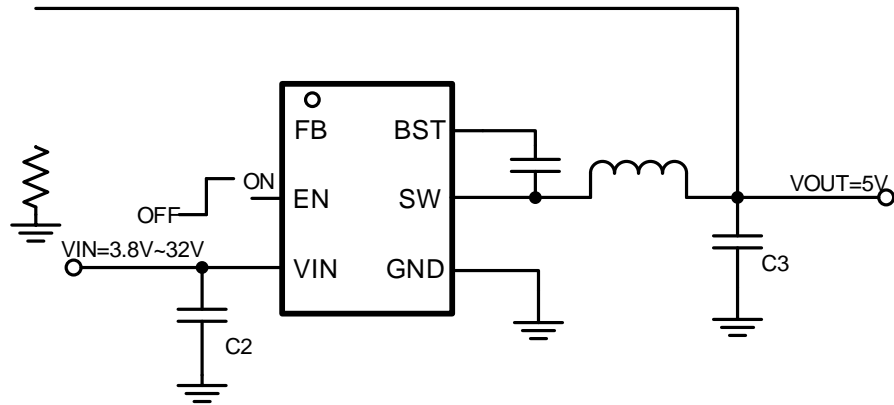
FUNCTIONAL BLOCK DIAGRAM







APPLICATION INFORMATION



| Design Parameters | Example Value |
|-------------------|---------------|
| Input Voltage | 24V |

(3)

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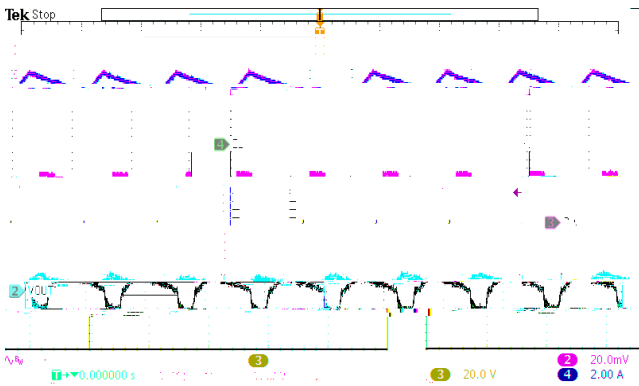


Figure 14. SW node waveform and Output Ripple
VIN=24V, IOU=3A

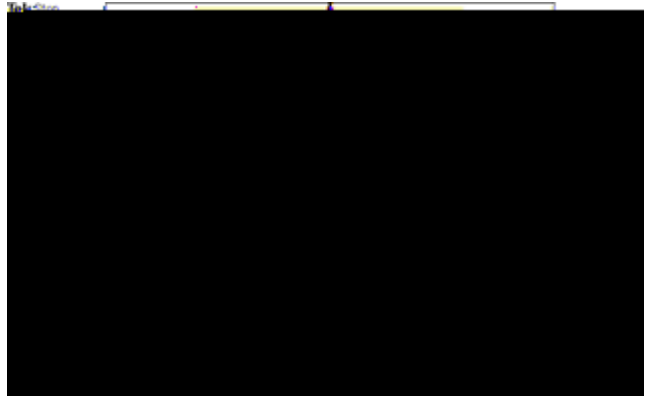


Figure 15. SW node Waveform and Output Ripple
VIN=24V, IOU=10mA

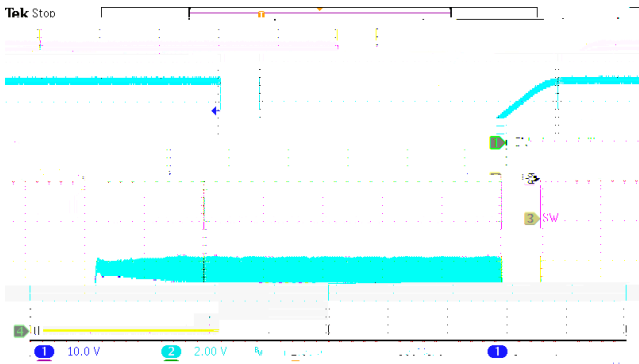


Figure 16. Power Up
VIN=24V, VOUT=5V, IOU=3A

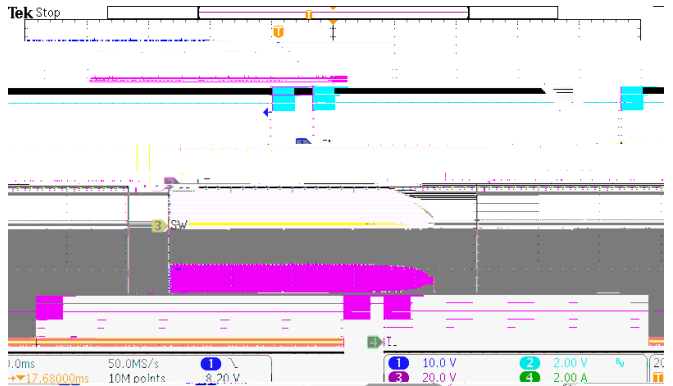


Figure 17. Power Down
VIN=24V, VOUT=5V, IOU=3A

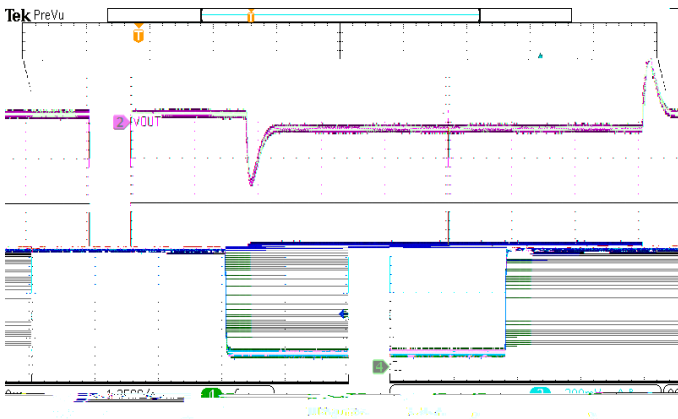


Figure 18. Load Transient
VOUT=5V, IOU=0.3A to 2.7A, SR=250mA/us

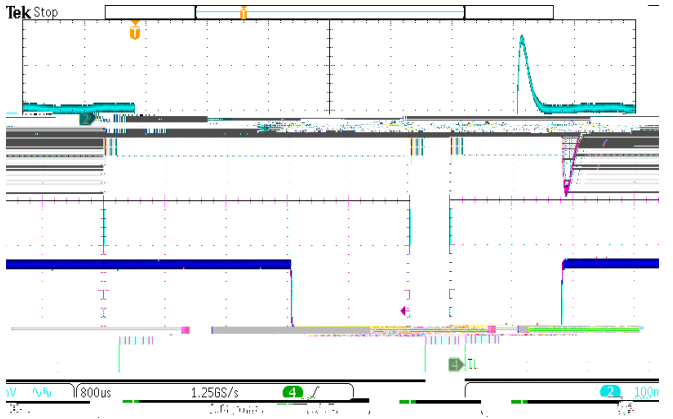
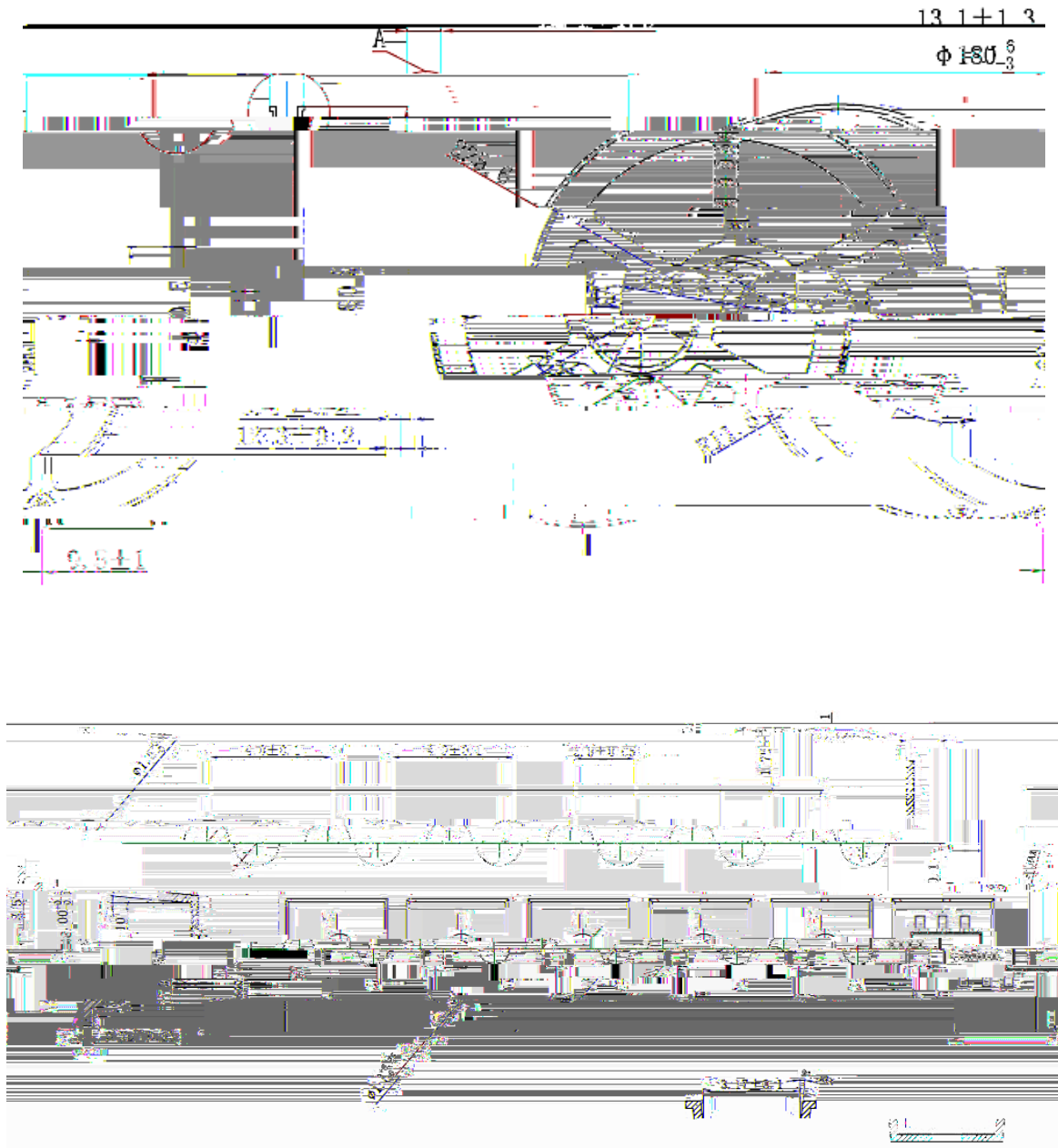


Figure 19. Load Transient
VOUT=5V, IOU=0.75A to 2.25 A, SR=250mA/us

PACKAGE INFORMATION

TAPE AND REEL INFORMATION



RELATED PARTS

| PN | DESCRIPTION | COMMENTS |
|----------------------------------|---|----------|
| SCT2320 SCT2321 | 3.8V-32V Vin, 2A Synchronous Step-down DCDC Converter with | |