

4.4V-80V Vin, 2A, High Efficiency Synchronous Step-down DCDC Converter

FEATURES

Operating Input Voltage Range: 4.4V~80V
 Output Voltage Range: 0.8V~5.5V
 Output Current: 2A
 High Efficiency: >90%
 Low Quiescent Current: <100μA
 Synchronous Rectification
 Thermal Shutdown
 Over Current Protection (OCP)
 Over Temperature Protection (OTP)
 Soft Start
 Enable Pin
 Pin 1: GND

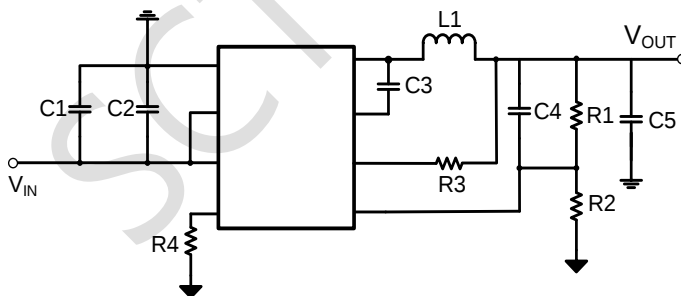
APPLICATIONS

Mobile Computing
 Industrial Control
 Power Management
 LED Driving
 Battery Charging

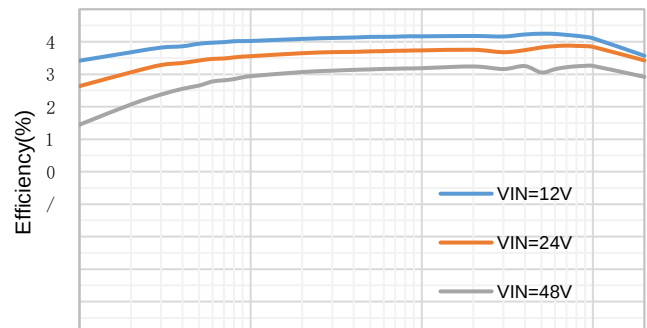
DESCRIPTION

The SCT100 is a high efficiency, synchronous step-down DCDC converter. It is designed to convert a wide range of input voltages (4.4V to 80V) to a regulated output voltage (0.8V to 5.5V) at an output current of up to 2A. The converter features a high efficiency of over 90%, low quiescent current of less than 100μA, and synchronous rectification. It also includes thermal shutdown, over current protection (OCP), and over temperature protection (OTP). The converter is available in a small package and is easy to use with a few external components.

TYPICAL APPLICATION



4.4V-80V, Synchronous Buck Converter

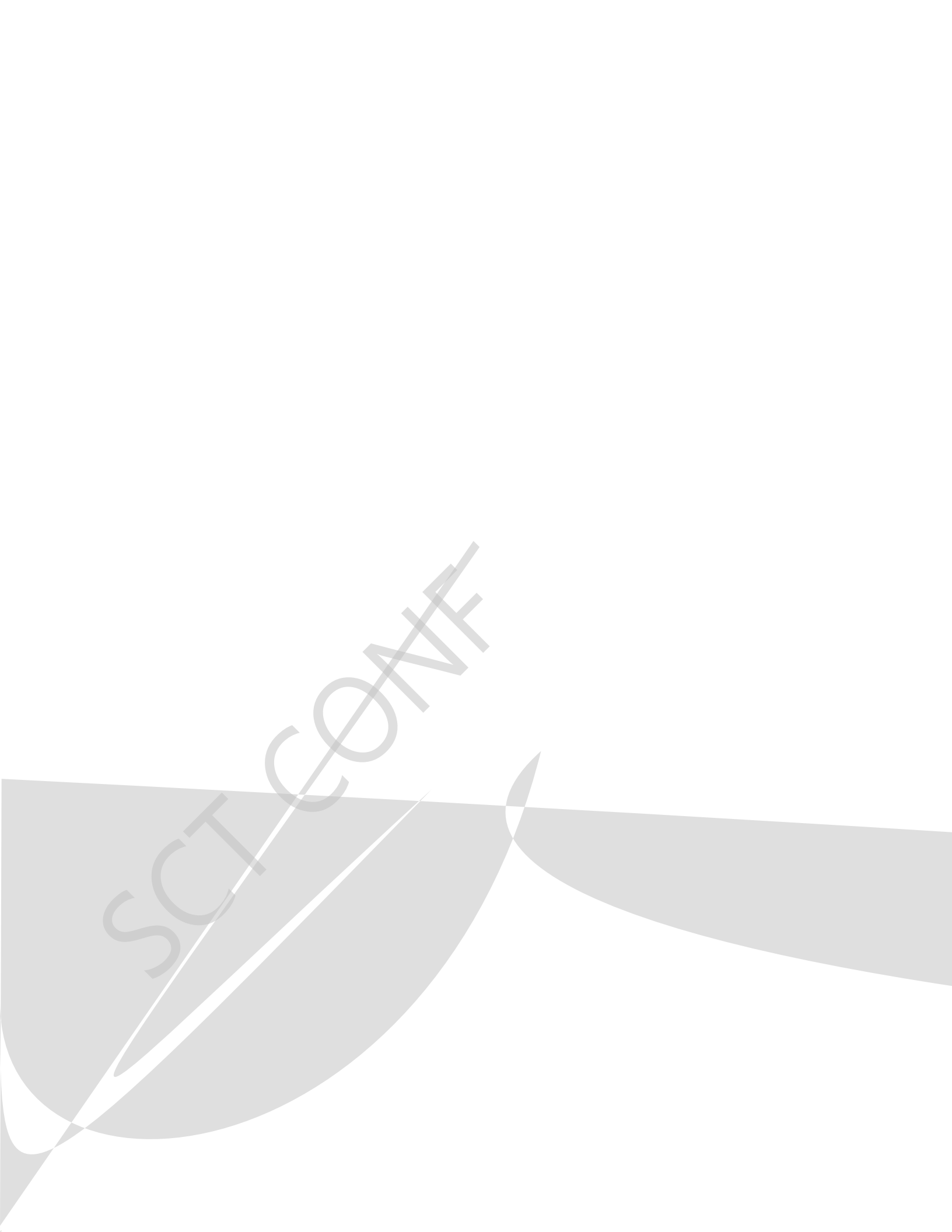


Output Current(A)

Efficiency, F_{sw}=400kHz, V_{OUT}=5V

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ELECTRICAL CHARACTERISTICS

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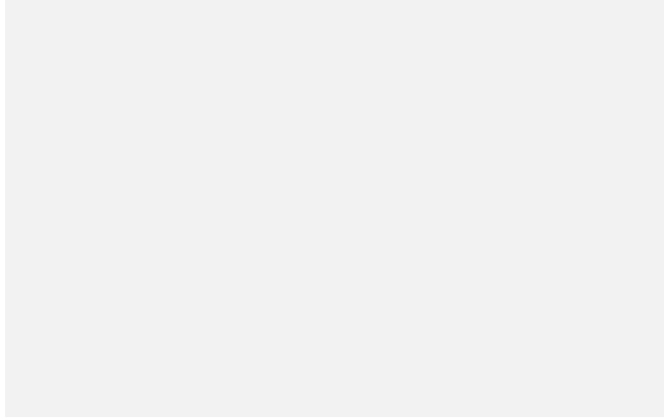
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TYPICAL CHARACTERISTICS



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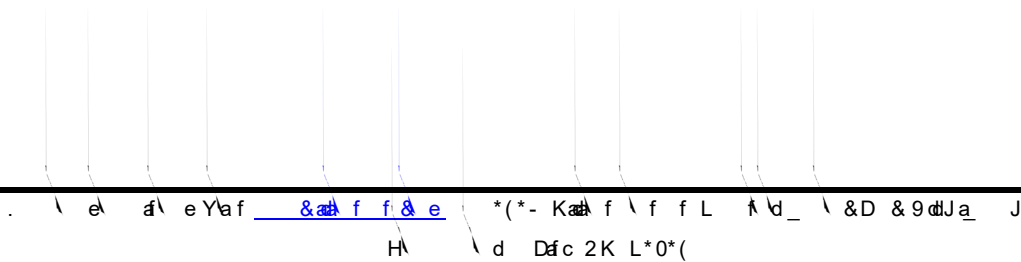
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FUNCTIONAL BLOCK DIAGRAM

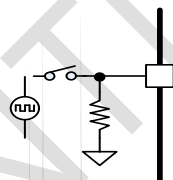
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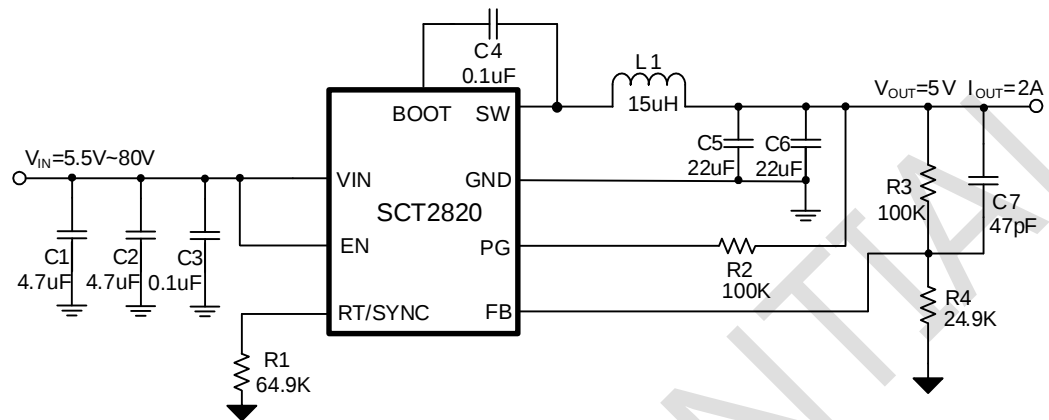
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APPLICATION INFORMATION



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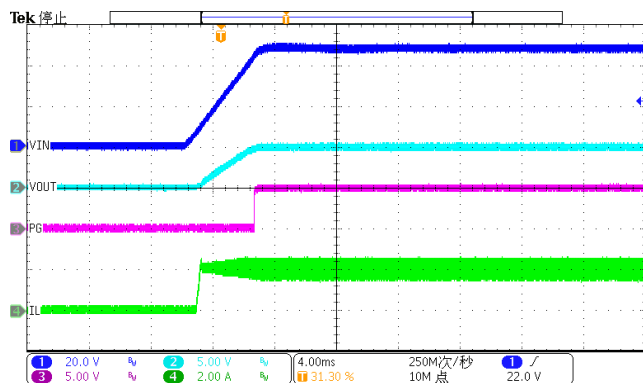
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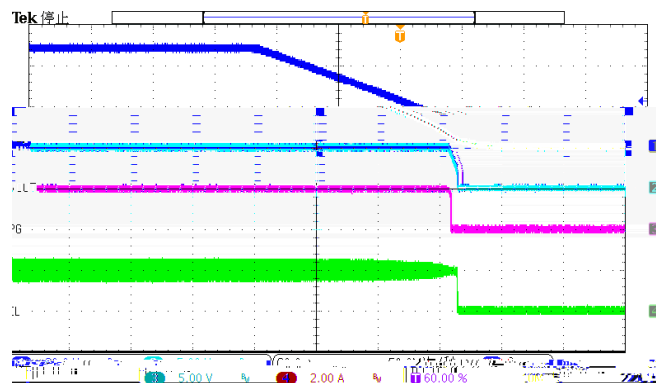
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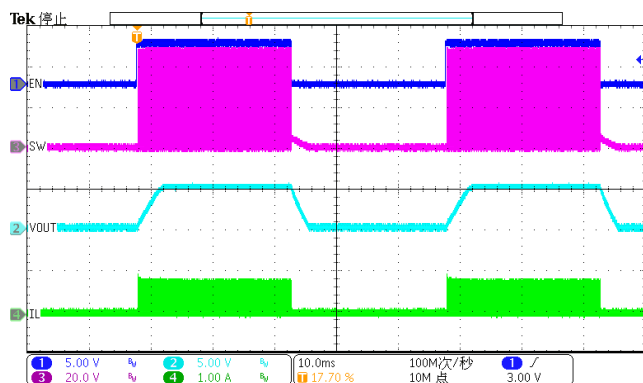
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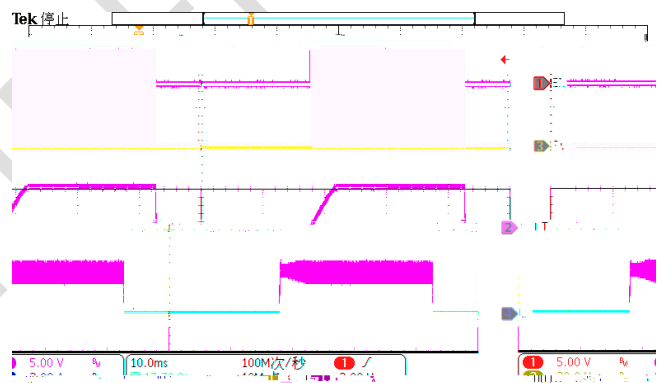
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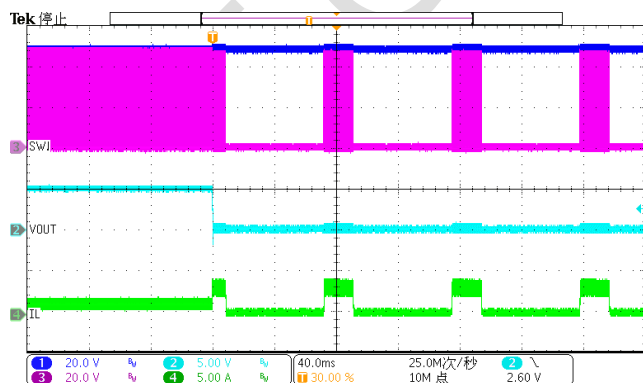
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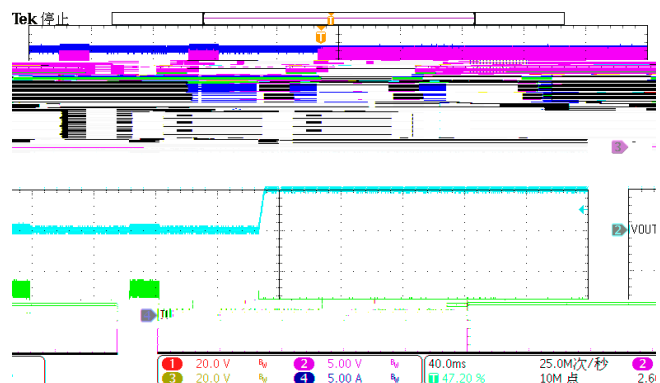
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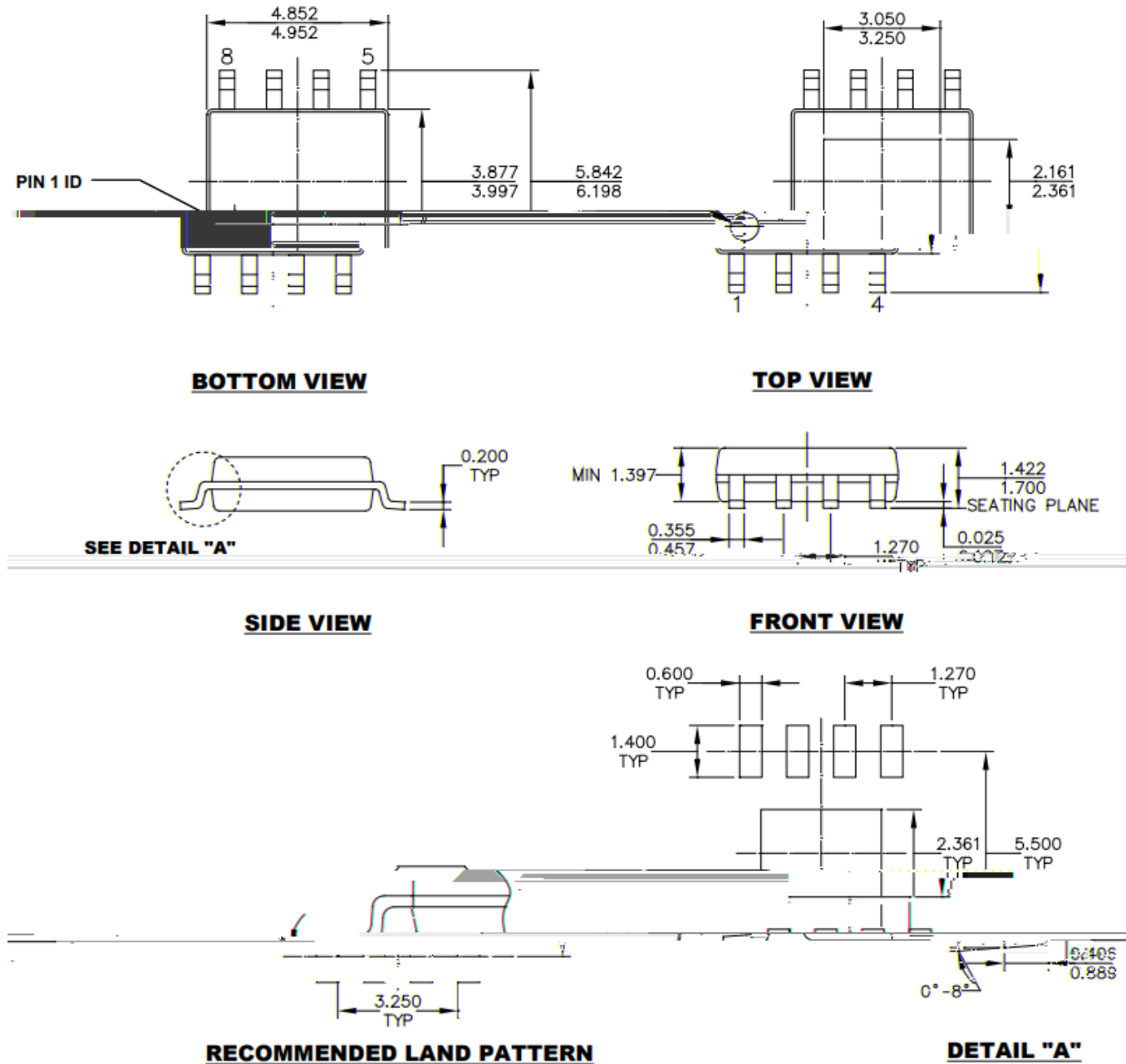
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PACKAGE INFORMATION



NOTE:

- 1) ALL DIMENSIONS ARE IN MILLIMETERS.
- 2) PACKAGE LENGTH DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURR
- 3) PACKAGE WIDTH DOES NOT INCLUDE INTERLEAD FLASH OR PROTRUSIONS.
- 4) LEAD COPLANARITY (BOTTOM OF LEADS AFTER FORMING) SHALL BE 0.1 MILLIMETER
- 5) DRAWING REFERENCE TO JEDEC MS-012, VARIATION AA.
- 6) DRAWING IS NOT TO SCALE.

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