

High-Efficiency Low EMI Boost Regulator

Features

- Over 80% Efficient at 1 mA Load
- 2.5V to 5.5V Input Voltage Range
- High Output Voltage Range: up to 37V
- 1.6A Switch Current (typ.)
- 52 μ A (typ.) Quiescent Current
- Constant Peak Current Control Reduces Output Ripple
- EMI Reduction Circuitry
- Stable with Small Ceramic Capacitors
- <1 μ A Shutdown Current
- UVLO and Thermal Shutdown
- 8-Pin 2 mm x 2 mm Leadless DFN Package (MIC2251)
- 5-Pin Thin SOT-23 Package (MIC2251-1 & MIC2251-2), Pin-to-Pin Compatible with MCP1661/3 (1.3A/1.8A Switch Current)
- -40°C to +125°C Junction Temperature Range

Applications

- LCD/OLED Display Bias Supply
- CCD Bias Supply
- Mobile Phones, PDAs, Media Players, GPS PNDs
- Haptic Displays
- Local 5V, 15V, and 24V Rails

General Description

The MIC2251 is a general-purpose DC/DC boost switching regulator that features low noise, EMI reduction circuitry, and high efficiency across a wide output current range.

The MIC2251 is optimized for noise-sensitive, handheld, battery-powered applications. A proprietary control method allows for low ripple across the output voltage and current ranges. The MIC2251 incorporates a pseudo-random dithering function, enabled by the DITH pin, to reduce EMI levels by up to 10 dB.

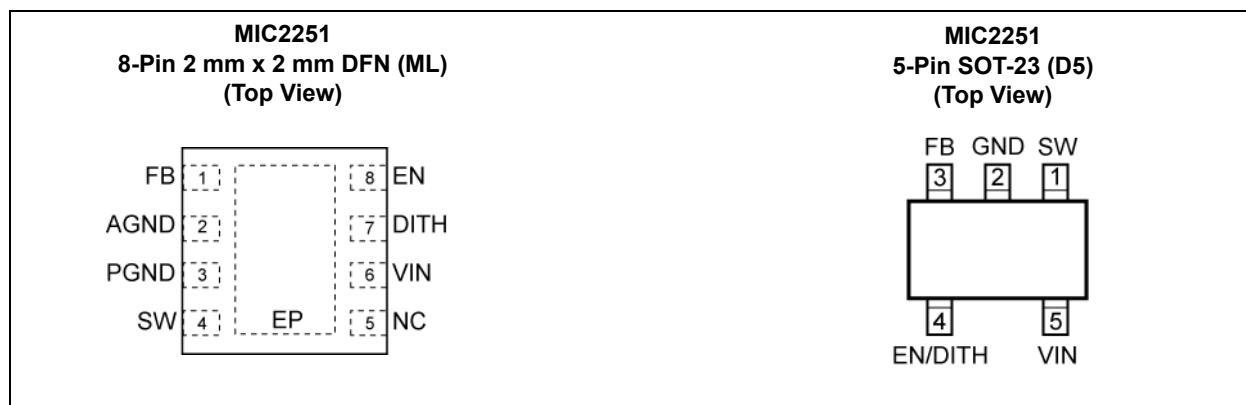
The MIC2251 is designed for use with inductor values from 4.7 μ H to 22 μ H and is stable with ceramic capacitors from 1 μ F to 22 μ F.

The MIC2251 achieves a high peak efficiency of up to 90% at 100 mA and excellent light-load efficiency of 80% at 1 mA.

The MIC2251-1 is available in a 5-pin Thin SOT-23 package with dithering disabled, while the MIC2251-2 is available in a 5-pin Thin SOT-23 package with dithering enabled.

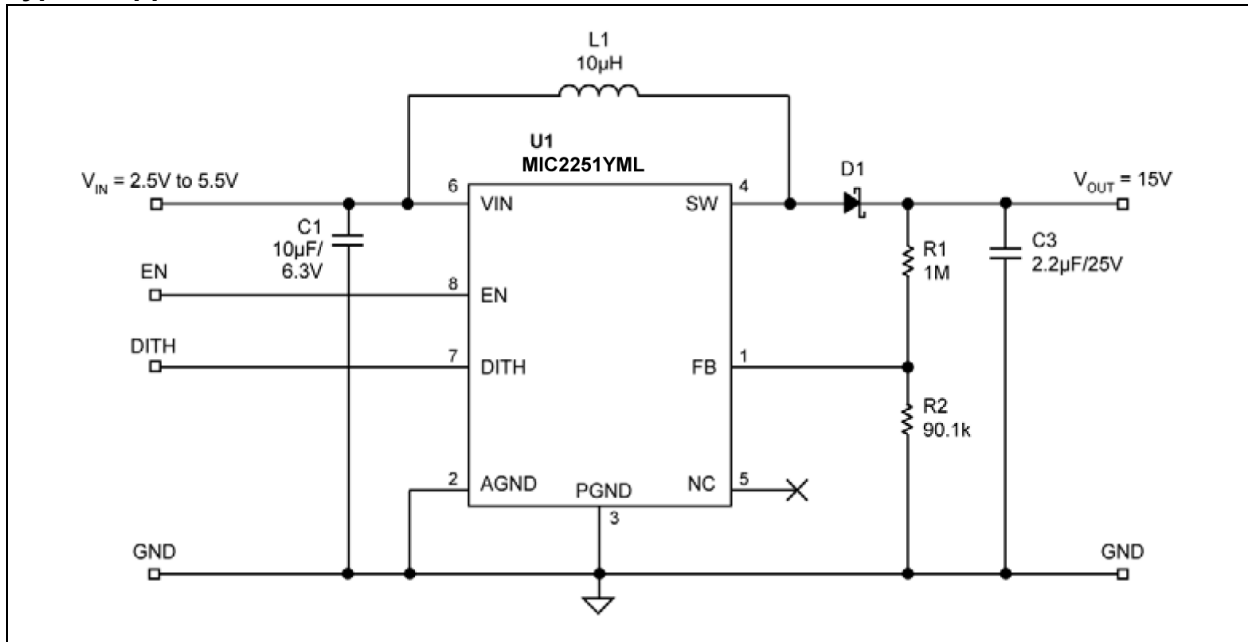
The MIC2251 is available in an 8-pin 2 mm x 2 mm DFN leadless package option with an operating junction temperature range of -40°C to +125°C.

Package Types

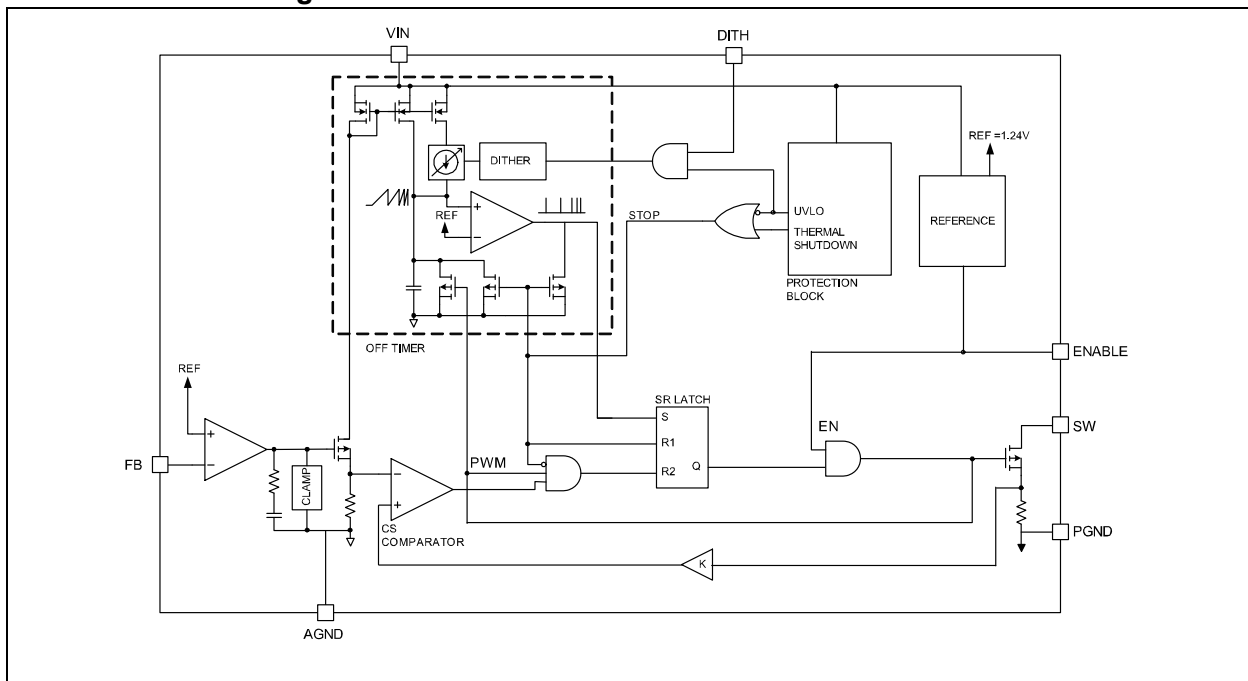


MIC2251

Typical Application Schematic



Functional Block Diagram



1.0 ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings †

Supply Voltage (V_{IN})	+6V
Switch Voltage (V_{SW})	–0.3V to +40V
Enable Voltage (V_{EN})	–0.3V to V_{IN}
FB Voltage (V_{FB})	+6V
Switch Current (I_{SW})	3.5A
ESD Rating (Note 1)	200V

Operating Ratings ‡

Supply Voltage (V_{IN})	+2.5V to +5.5V
Enable Voltage (V_{EN})	0V to V_{IN}

† **Notice:** Stresses above those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. This is a stress rating only and functional operation of the device at those or any other conditions above those indicated in the operational sections of this specification is not intended. Exposure to maximum rating conditions for extended periods may affect device reliability.

‡ **Notice:** The device is not guaranteed to function outside its operating ratings.

Note 1: Devices are ESD sensitive. Handling precautions are recommended. Human body model, 1.5 k Ω in series with 100 pF.

ELECTRICAL CHARACTERISTICS

Electrical Characteristics: $V_{IN} = V_{EN} = 3.6V$; $V_{DITH} = 0V$; $V_{OUT} = 15V$; $I_{OUT} = 40\text{ mA}$; $T_A = +25^\circ\text{C}$, unless otherwise noted. **Bold** values indicate $-40^\circ\text{C} \leq T_J \leq +85^\circ\text{C}$. Specification for packaged product only.

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Input Voltage Range	V_{IN}	2.5	—	5.5	V	—
Undervoltage Lockout	V_{UVLO}	1.8	2	2.4	V	V_{IN} rising
Quiescent Current	I_Q	—	70	120	μA	$V_{FB} = 1.5V$ (not switching)
Shutdown Current	I_{SD}	—	0.1	1	μA	$V_{EN} = 0V$, $I_{SD} = I_{VIN}$
Feedback Voltage	V_{FB}	1.20	1.24	1.277	V	—
		1.19	—	1.29	V	$-40^\circ\text{C} \leq T_J \leq +85^\circ\text{C}$
Feedback Input Current	I_{FB}	—	10	—	nA	$V_{FB} = 1.24V$
PFM Operation						
Soft-Start Time	t_{SS}	—	1	—	ms	—
Switch Off-Time	t_{SW}	—	1.6	—	μs	$V_{IN} = 3.6V$
Maximum Duty Cycle	D_{MAX}	75	87	—	%	—
Off-Time Dithering	t_{DITH}	—	± 20	—	%	$V_{DITH} = 3.6V$. Percentage from nominal.
Line Regulation	LINE_REG	—	0.3	2	%	$3V \leq V_{IN} \leq 5V$
Load Regulation	LOAD_REG	—	0.1	2	%	$1\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$
Switch Current-Limit	I_{SW}	0.9	1.6	—	A	—
Switch ON-Resistance	R_{ON}	—	0.7	1	Ω	$I_{SW} = 200\text{ mA}$
Switch Leakage Current	I_{LK}	—	0.01	5	μA	$V_{EN} = 0V$, $V_{SW} = 10V$
Logic Input Thresholds	V_{EN}, V_{DITH}	1.5	—	—	V	Turn On
		—	—	0.4	V	Turn Off
Enable Pin Current	I_{EN}	—	0.1	2	μA	$V_{EN} = V_{IN} = 5.0V$
Thermal Shutdown Threshold	T_{TSD}	—	130	—	$^\circ\text{C}$	—
		—	15	—	$^\circ\text{C}$	Hysteresis

TEMPERATURE SPECIFICATIONS

Parameters	Sym.	Min.	Typ.	Max.	Units	Conditions
Temperature Ranges						
Junction Operating Temperature	T_J	-40	—	+125	°C	(Note 1)
Ambient Storage Temperature Range	T_S	-65	—	+150	°C	—
Package Thermal Resistance						
Thermal Resistance, 2 mm x 2 mm DFN-8	θ_{JA}	—	90	—	°C/W	—

Note 1: The maximum allowable power dissipation is a function of ambient temperature, the maximum allowable junction temperature and the thermal resistance from junction to air (i.e., T_A , T_J , θ_{JA}). Exceeding the maximum allowable power dissipation will cause the device operating junction temperature to exceed the maximum +125°C rating. Sustained junction temperatures above +125°C can impact the device reliability.

2.0 TYPICAL PERFORMANCE CURVES

Note: The graphs and tables provided following this note are a statistical summary based on a limited number of samples and are provided for informational purposes only. The performance characteristics listed herein are not tested or guaranteed. In some graphs or tables, the data presented may be outside the specified operating range (e.g., outside the specified power supply range) and therefore outside the warranted range.

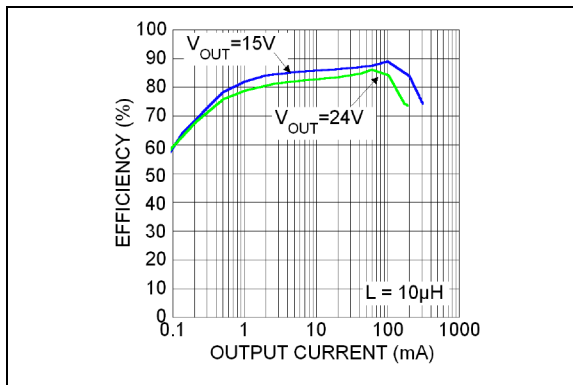


FIGURE 2-1: Efficiency $V_{IN} = 5V$.

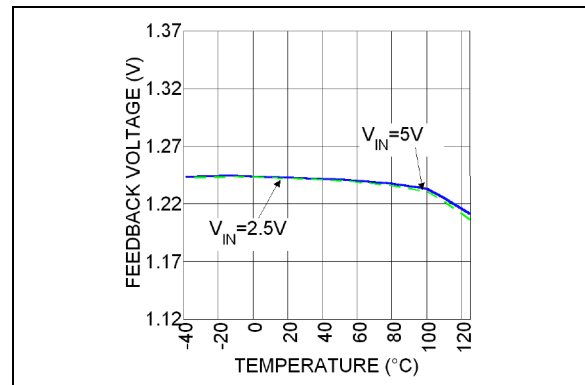


FIGURE 2-4: Feedback Voltage vs. Temperature.

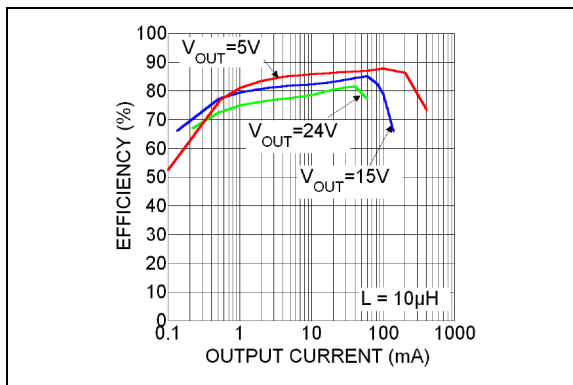


FIGURE 2-2: Efficiency $V_{IN} = 3.3V$.

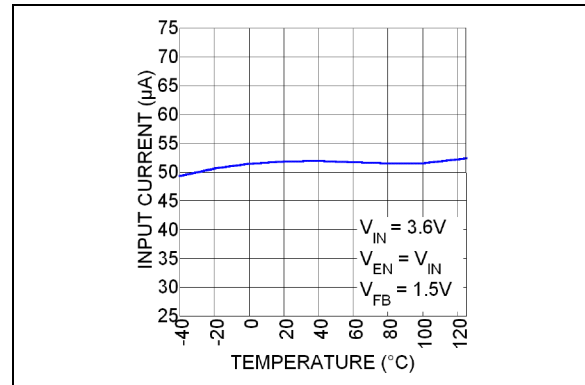


FIGURE 2-5: Input Current vs. Temperature.

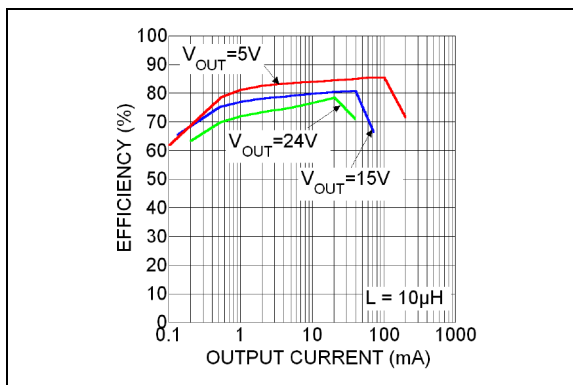


FIGURE 2-3: Efficiency $V_{IN} = 2.5V$.

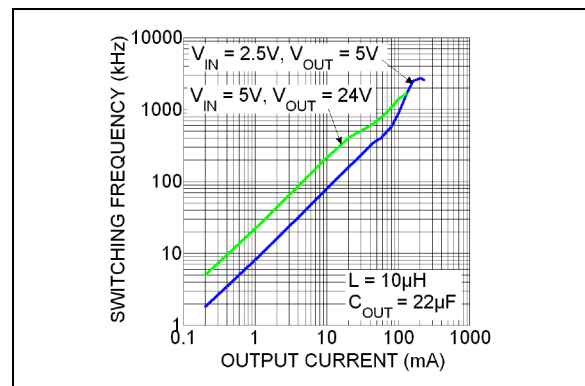


FIGURE 2-6: Switching Frequency vs. Load Current.

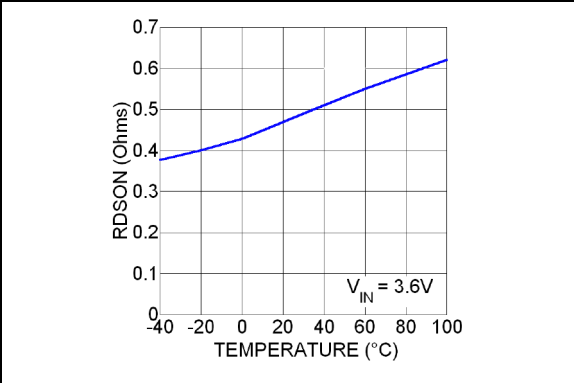


FIGURE 2-7: $R_{DS(ON)}$ vs. Temperature.

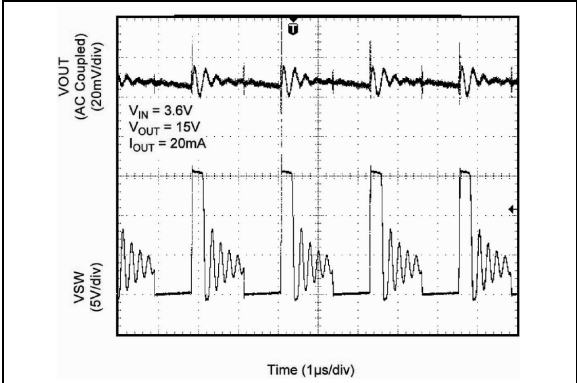


FIGURE 2-10: Switching Waveform.

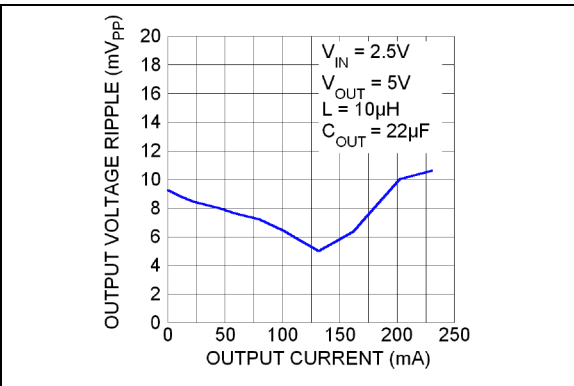


FIGURE 2-8: Output Voltage Ripple vs. Load Current.

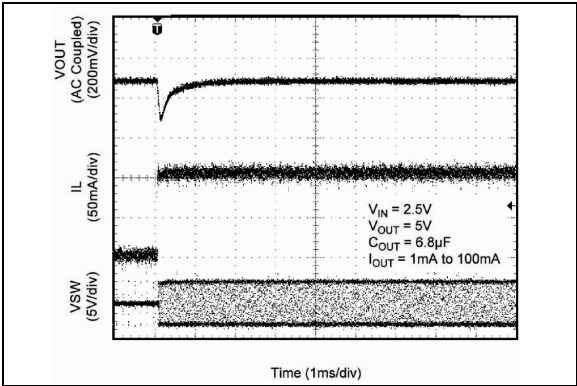


FIGURE 2-11: Load Transient Response.

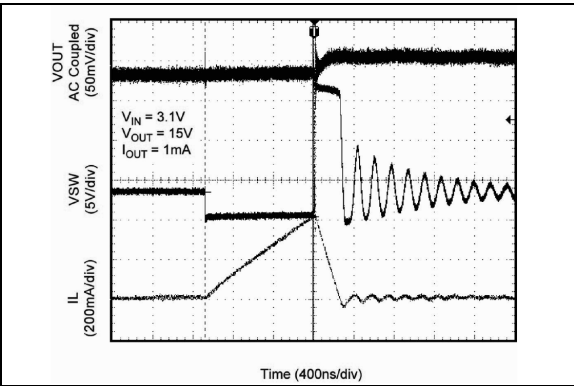


FIGURE 2-9: Switching Waveform.

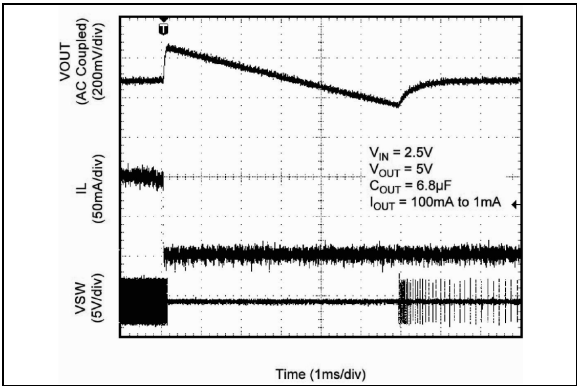


FIGURE 2-12: Load Transient Response.

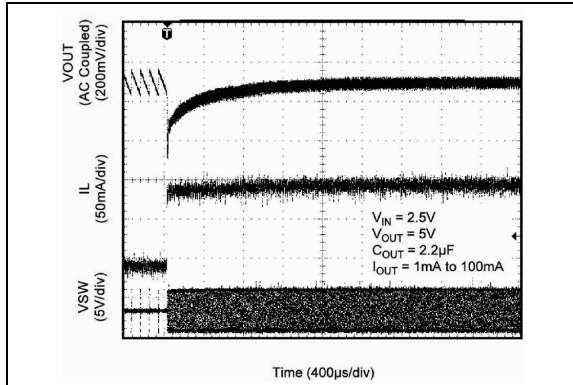


FIGURE 2-13: Load Transient Response.

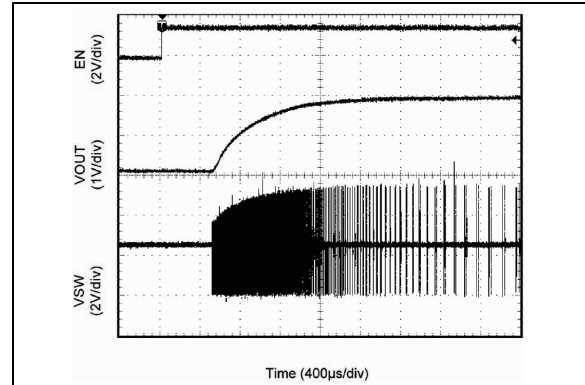


FIGURE 2-16: Start-Up Waveform.

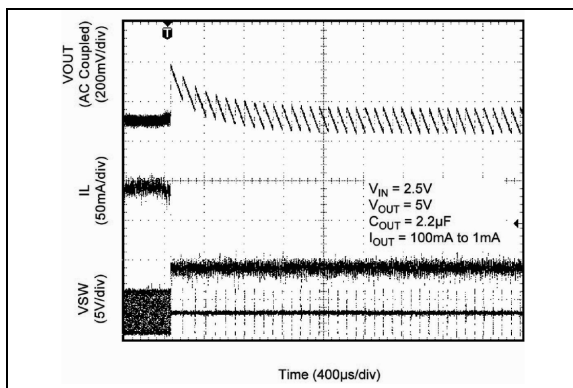


FIGURE 2-14: Load Transient Response.

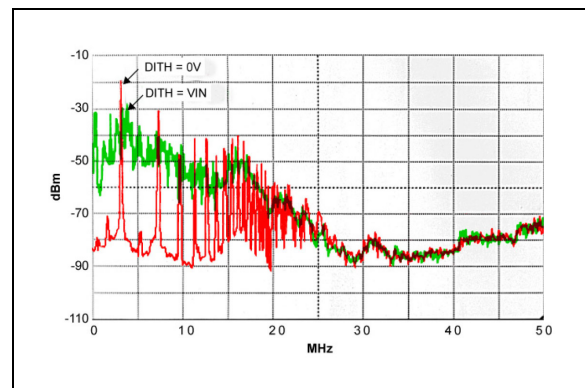


FIGURE 2-17: EMI Improvement Using Dithering.

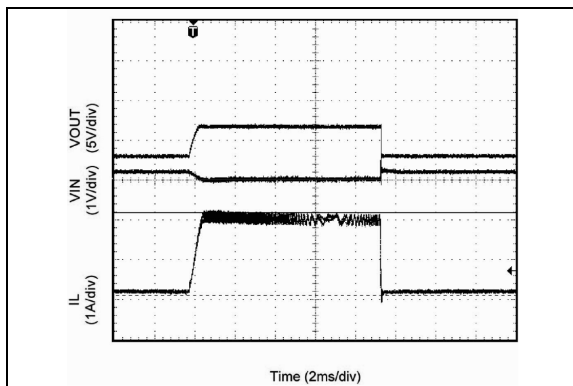


FIGURE 2-15: Current Limit.

MIC2251

3.0 PIN DESCRIPTIONS

The descriptions of the pins are listed in [Table 3-1](#).

TABLE 3-1: PIN FUNCTION TABLE

Pin Number MIC2251YML	Pin Number MIC2251-1YD5	Pin Number MIC2251-2YD5	Pin Name	Description
1	3	3	FB	Feedback (input): 1.24V output voltage sense node. $V_{OUT} = 1.24V (1 + R1/R2)$
2	—	—	AGND	Analog ground. Connect to power ground.
3	2	2	PGND	Power ground.
4	1	1	SW	Switch node (input): Internal power NMOS drain.
5	—	—	NC	Not internally connected.
6	5	5	VIN	Supply (input): 2.5V to 5.5V input voltage.
7	—	4	DITH	Frequency dithering (input): Connect this pin high to enable pseudo-random on-time dithering to reduce EMI. Connect this pin to ground to disable this function.
8	4	4	EN	Enable (input): Logic high enables the regulator. Logic low shuts down the regulator. Do not leave floating.
EP	—	—	HS PAD	Ground (return): Exposed backside pad. Connect to power ground.

4.0 FUNCTIONAL DESCRIPTION

4.1 VIN

The input supply (V_{IN}) provides power to the internal MOSFET and control circuitry for the switch-mode regulator. The operating input voltage range is 2.5V to 5.5V. An input capacitor with a minimum voltage rating of 6.3V is recommended.

4.2 EN

A logic-level input of 1.5V or higher enables the regulator. A logic input of 0.4V or lower places the regulator in shutdown mode, which reduces the supply current to less than 1 μ A. The MIC2251 features built-in soft-start circuitry that reduces inrush current and prevents the output voltage from overshooting during startup. Do not leave the Enable pin floating.

4.3 SW

The MIC2251 has an internal MOSFET switch that connects directly to one end of the inductor (SW pin) and provides a current path to ground during switching cycles. The source of the internal MOSFET is connected through a current sense resistor to ground.

4.4 PGND

The power ground pin is the high-current path to ground. The current loop for the power ground should be as small as possible and separate from the analog ground (AGND).

4.5 AGND

Analog ground (AGND) is the ground path for the biasing and control circuitry. The current loop for the signal ground should be separate from the power ground (PGND) loop.

4.6 DITH

The DITH function is a frequency dithering technique that reduces EMI noise by spreading the boost regulator's noise spectrum. This technique reduces EMI peaks by distributing the switching frequency across a wider spectrum. Connect this pin high to enable the pseudo-random on-time dithering. Connect this pin to ground to disable this function.

4.7 FB

The feedback pin (FB) allows the regulated output voltage to be set by applying an external resistor divider network. The internal reference voltage is 1.24V. The output voltage can be calculated using the following equation:

EQUATION 4-1:

$$V_{OUT} = 1.24V \left(1 + \frac{R1}{R2} \right)$$

5.0 APPLICATION INFORMATION

5.1 Overview

The MIC2251 boost regulator utilizes a combination of PFM and current-mode regulation to achieve very high efficiency over a wide range of output load. This innovative design is the basis for the regulator's high efficiency, excellent stability and self-compensation technique. The boost regulator performs a power conversion that results in an output voltage greater than the input. Operation starts with the activation of an internal MOSFET switch that draws current through the inductor (L1). While one end of the inductor is fixed at V_{IN} , the other end is switched up and down. While the switch is on, the current through the inductor increases. When the switch is off, the inductor current continues to flow through the output diode.

The current flow imposes a voltage across the inductor, which is added to V_{IN} to produce a higher output voltage, V_{OUT} . At low power levels (typically less than 1W), the period varies between switching cycles, which is indicative of pulse frequency modulation (PFM). As the output power increases beyond approximately 1W, the period between switching cycles continues to decrease, and the power (switch current) delivered with each cycle increases, which is indicative of current-mode regulation.

5.2 PFM Regulation

The error amplifier compares the regulator's reference voltage with the feedback voltage obtained from the output resistor voltage divider network. The resulting error voltage acts as a correction input signal to the control block. The control block generates two signals that turn the output MOSFET switch on and off. An increase in load current causes V_{OUT} and V_{FB} to decrease. The control loop then changes the switching frequency to increase the energy transferred to the output capacitor to regulate the output voltage. A reduction in load causes V_{OUT} and V_{FB} to increase. Now the control loop compensates by reducing the effective switching frequency, thus reducing the amount of energy delivered to the output capacitor in order to keep the output voltage within regulation.

5.3 Current Mode Regulation

The control block's oscillator starts the cycle by setting the MOSFET switch control flip-flop. The switch then turns on. This flip-flop is reset when the switch current ramp reaches the threshold set by the error amplifier. If the error amplifier indicates that V_{FB} is either too high or too low, the threshold for the comparator measuring the switch current is appropriately adjusted to bring V_{OUT} within regulation limits. The level of the error signal also sets the off time of the switch. A higher error signal (when the output voltage is low) will reduce the

off time to increase energy transfer to the output. Conversely, a lower error signal (when the output voltage is high) will increase the off time to reduce energy transfer to the output.

5.4 Component Selection

RESISTORS

An external resistive divider network (R1 and R2), with its center tap connected to the feedback pin, sets the output voltage. The appropriate R1 and R2 values for the desired output voltage are calculated as follows:

EQUATION 5-1:

$$R2 = \frac{R1}{\left(\frac{V_{OUT}}{1.24V} - 1\right)}$$

Large resistor values are recommended to reduce light-load operating current and improve efficiency. The table below provides a good compromise between quiescent current and accuracy. Additionally, a feed-forward capacitor (C_{FF}) placed in parallel with R1 may be added to improve transient performance. Recommended values are suggested below:

TABLE 5-1: RECOMMENDED R1 AND C_{FF} VALUES

V_{OUT}	Suggested R1	C_{FF}
5V to 10V	100 k Ω	4.7 nF
10V to 15V	240 k Ω	2.2 nF
15V to 37V	1M Ω	470 pF

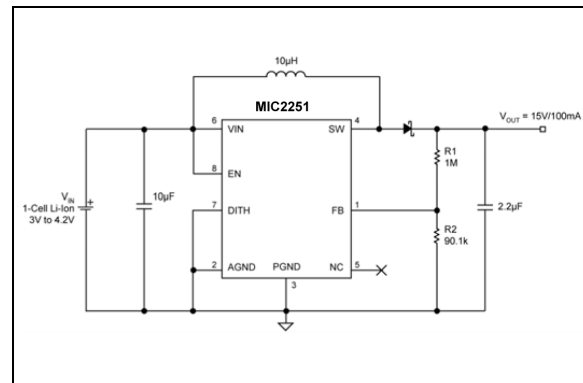


FIGURE 5-1: Typical Application Circuit.

INDUCTOR

Inductor selection is a balance between efficiency, stability, cost, size, and rated current. For most applications, inductors in the range 4.7 μ H to 22 μ H are recommended. Larger inductance values reduce the

peak-to-peak ripple current, thereby reducing both the DC losses and the transition losses for better efficiency. The inductor's DC resistance (DCR) also plays an important role. Because the majority of the input current (minus the MIC2251 operating current) passes through the inductor, higher DCR inductors will reduce efficiency at higher load currents. Figure 5-2 shows a comparison of efficiency between a 140 mΩ DCR, 4.7 μH inductor and a 190 mΩ DCR, 10 μH inductor. The switch current limit for the MIC2251 is typically 1.6A. The saturation current rating of the selected inductor should be 20-30% higher than the 1.6A specification for proper operation.

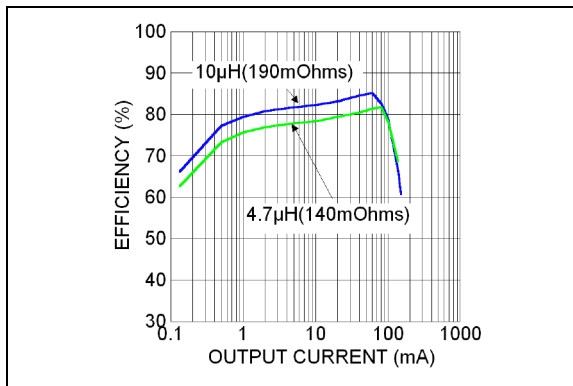


FIGURE 5-2: Efficiency Comparison between Lower and Higher Inductor Values.

INPUT CAPACITOR

The boost converter exhibits a triangular current waveform at its input, so an input capacitor is required to decouple this waveform and thereby reduce the input voltage ripple. A 10 μF to 22 μF ceramic capacitor should be sufficient for most applications. A minimum input capacitance of 1 μF is recommended. The input capacitor should be as close as possible to the inductor and the MIC2251, with short PCB traces for good noise performance.

OUTPUT CAPACITOR

Output capacitor selection is also a trade-off between performance, size, and cost. Increasing C_{OUT} will lead to an improved transient response; however, the size and cost also increase. X5R and X7R ceramic capacitors are recommended. For most applications, 2.2 μF to 22 μF should be sufficient.

DIODE

The MIC2251 requires an external diode for operation. The diode must be rated for the peak inductor current, and its reverse voltage rating must be greater than the output voltage. A Schottky diode is recommended for lower output voltages due to its lower forward voltage drop and reverse recovery time. However, at higher output voltages (>10V), a high-speed diode such as LS4148 can be more efficient because it has the advantage of considerably lower leakage currents, especially at higher temperatures. This will greatly improve light-load efficiency when compared to a Schottky diode.

For example: At a 70°C ambient temperature:
 $V_{IN} = 2.5V$, $V_{OUT} = 24V$ at no load.

Input current (Vishay SL04 Schottky) = 2.1 mA.

Input current (Generic LS4148) = 0.37 mA.

6.0 PACKAGING INFORMATION

6.1 Package Marking Information

5-Lead SOT-23*

XXX

Example

DZ1

8-Lead DFN*

● XXX
NNN

Example

● ADA
916

Legend:

XX...X

Y

YY

WW

NNN

(e3)

*

●, ▲, ▼

Product code or customer-specific information

Year code (last digit of calendar year)

Year code (last 2 digits of calendar year)

Week code (week of January 1 is week '01')

Alphanumeric traceability code

Pb-free JEDEC® designator for Matte Tin (Sn)

This package is Pb-free. The Pb-free JEDEC designator (e3) can be found on the outer packaging for this package.

Pin one index is identified by a dot, delta up, or delta down (triangle mark).

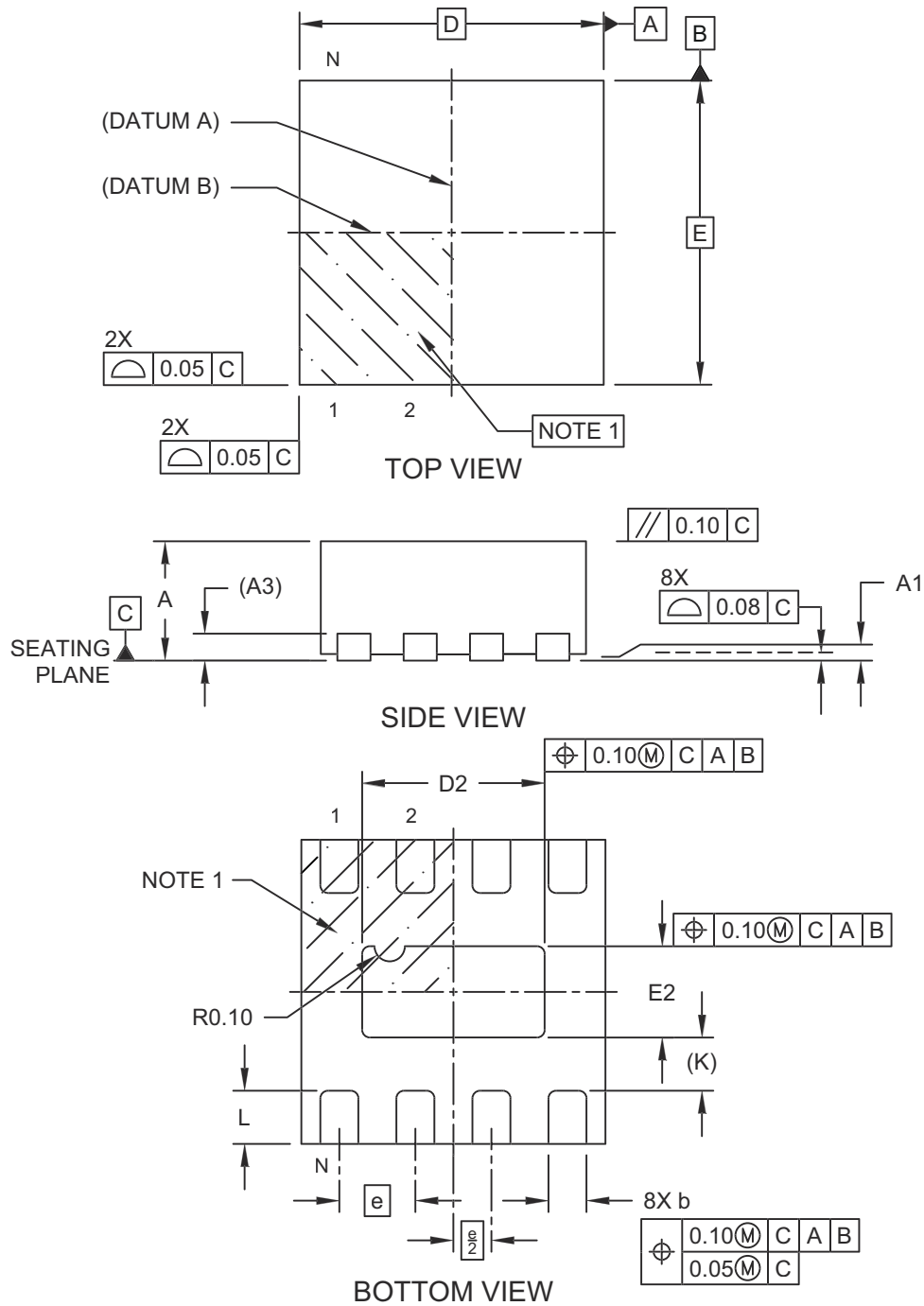
Note:

In the event the full Microchip part number cannot be marked on one line, it will be carried over to the next line, thus limiting the number of available characters for customer-specific information. Package may or may not include the corporate logo.

Underbar (_) symbol may not be to scale.

8-Lead Very Thin Plastic Dual Flat, No Lead Package (H2A) - 2x2x1.0 mm Body [VDFN] With 1.20x0.6 mm Exposed Pad

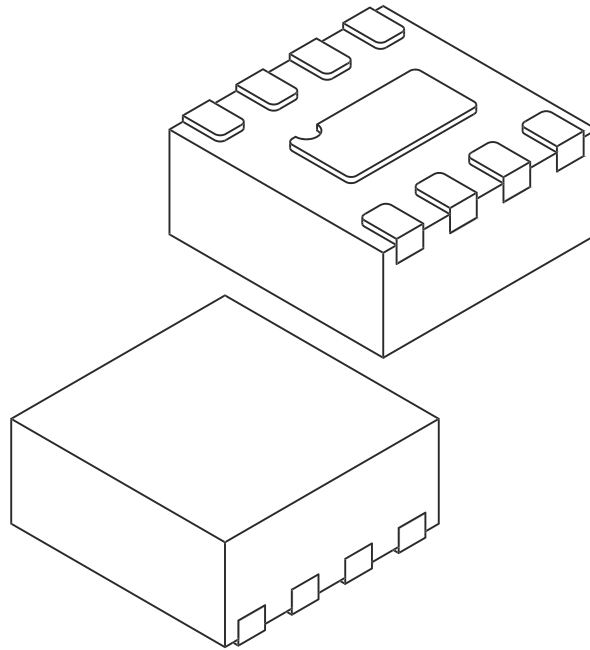
Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



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8-Lead Very Thin Plastic Dual Flat, No Lead Package (H2A) - 2x2x1.0 mm Body [VDFN] With 1.20x0.6 mm Exposed Pad

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



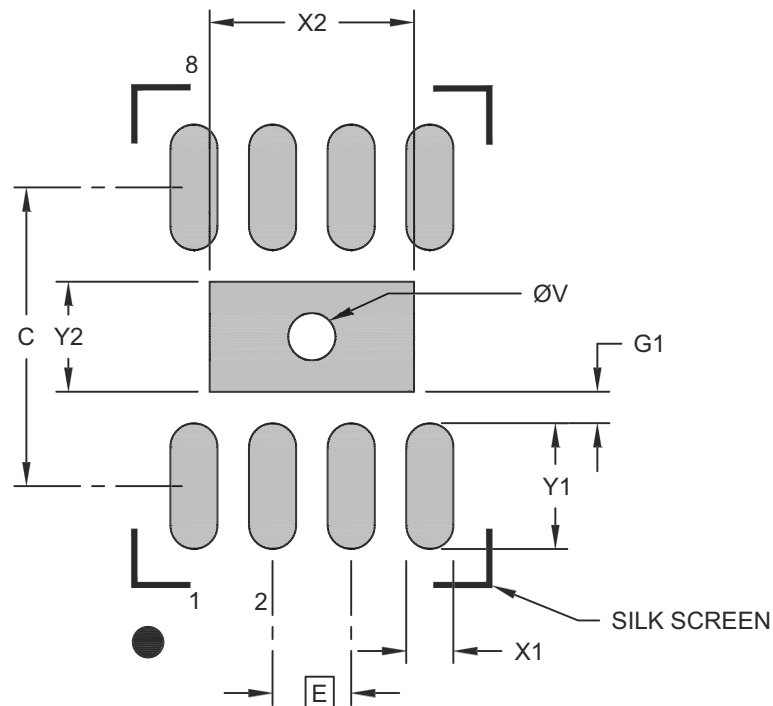
Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Terminals	N	8		
Pitch	e	0.50 BSC		
Overall Height	A	0.80	0.90	1.00
Standoff	A1	0.00	-	0.05
Terminal Thickness	A3	0.20 REF		
Overall Length	D	2.00 BSC		
Exposed Pad Length	D2	1.10	1.20	1.30
Overall Width	E	2.00 BSC		
Exposed Pad Width	E2	0.50	0.60	0.70
Terminal Width	b	0.20	0.25	0.30
Terminal Length	L	0.30	0.35	0.40
Terminal-to-Exposed-Pad	K	0.35 REF		

Notes:

1. The Pin 1 visual index feature may vary, but it must be located within the hatched area.
2. The package is saw singulated.
3. Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. The theoretically exact value is shown without tolerances.
REF: Reference Dimension, usually without tolerance, is for information purposes only.

8-Lead Very Thin Plastic Dual Flat, No Lead Package (H2A) - 2x2x1.0 mm Body [VDFN] With 1.20x0.6 mm Exposed Pad

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Contact Pitch	E	0.50 BSC		
Optional Center Pad Width	X2			1.30
Optional Center Pad Length	Y2			0.70
Contact Pad Spacing	C		1.90	
Contact Pad Width (X8)	X1			0.30
Contact Pad Length (X8)	Y1			0.80
Contact Pad to Center Pad (X8)	G1	0.20		
Thermal Via Diameter	V	0.27	0.30	0.33

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M

BSC: Basic Dimension. The theoretically exact value is shown without tolerances.

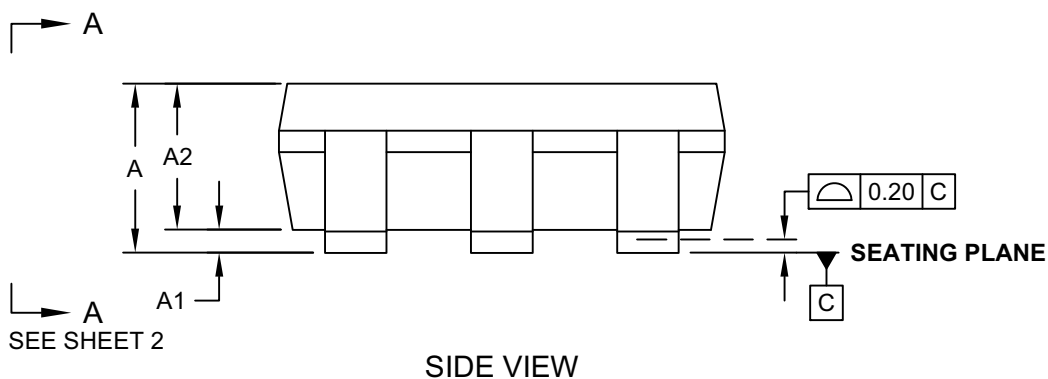
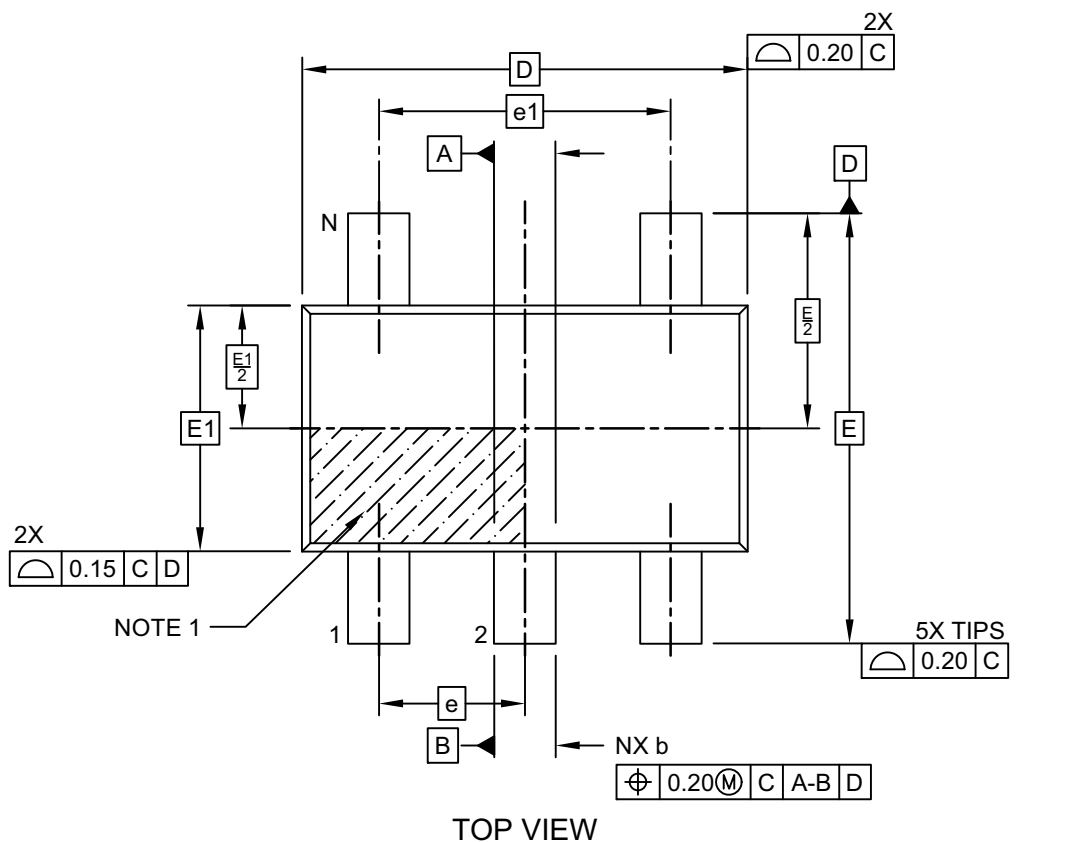
2. For best soldering results, thermal vias, if used, should be filled or tented to avoid solder loss during the reflow process.

Microchip Technology Drawing C04-03247 Rev. C

MIC2251

5-Lead Plastic Thin Small Outline Transistor (D5A) [TSOT] Micrel Legacy Package TSOT-5LD-PL-1

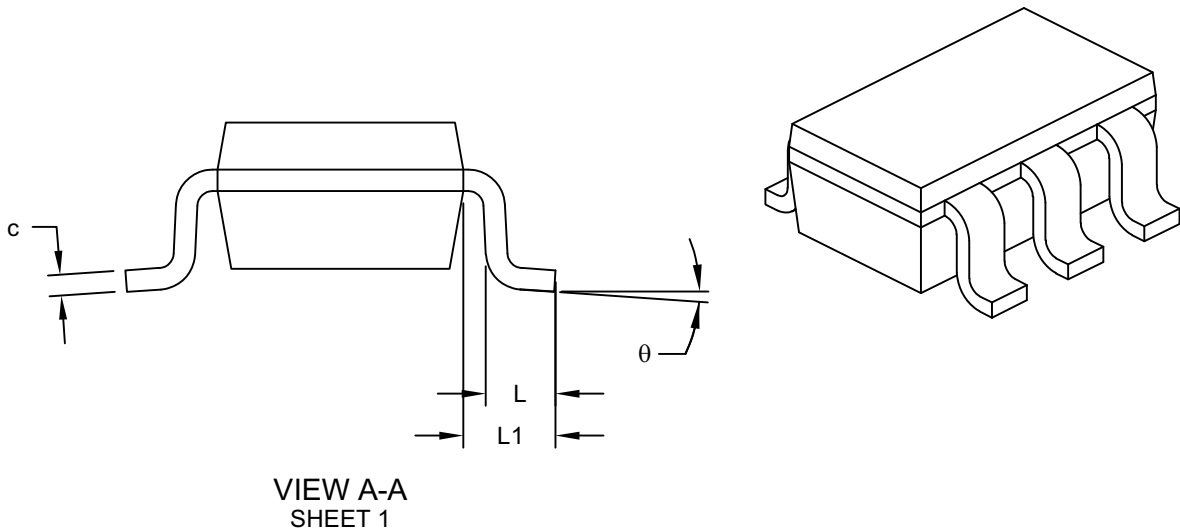
Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Microchip Technology Drawing C04-1179 Rev A Sheet 1 of 2

5-Lead Plastic Thin Small Outline Transistor (D5A) [TSOT] Micrel Legacy Package TSOT-5LD-PL-1

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



Units		MILLIMETERS		
Dimension Limits		MIN	NOM	MAX
Number of Leads	N	5		
Pitch	e	0.95 BSC		
Outside lead pitch	e1	1.90 BSC		
Overall Height	A	-	-	1.00
Molded Package Thickness	A2	0.84	0.87	0.90
Standoff	A1	0.00	-	0.10
Overall Width	E	2.80 BSC		
Molded Package Width	E1	1.60 BSC		
Overall Length	D	2.90 BSC		
Foot Length	L	0.30	0.40	0.50
Footprint	L1	0.60 REF		
Foot Angle	φ	0°	-	4°
Lead Thickness	c	0.127 REF		
Lead Width	b	0.30	-	0.50

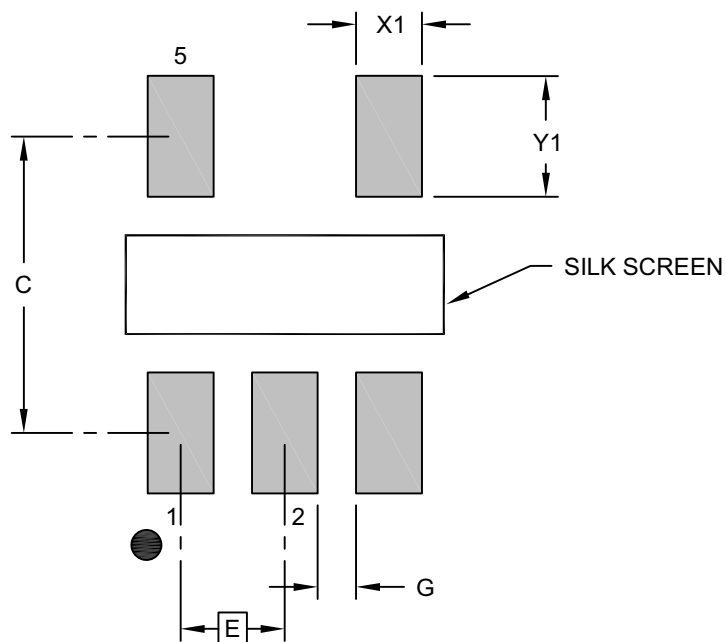
Notes:

- Dimensions D and E1 do not include mold flash or protrusions. Mold flash or protrusions shall not exceed 0.25mm per side.
- Dimensioning and tolerancing per ASME Y14.5M
BSC: Basic Dimension. Theoretically exact value shown without tolerances.
REF: Reference Dimension, usually without tolerance, for information purposes only.

Microchip Technology Drawing C04-1179 Rev A Sheet 1 of 2

5-Lead Plastic Thin Small Outline Transistor (D5A) [TSOT] Micrel Legacy Package TSOT-5LD-PL-1

Note: For the most current package drawings, please see the Microchip Packaging Specification located at <http://www.microchip.com/packaging>



RECOMMENDED LAND PATTERN

Dimension Limits	Units	MILLIMETERS		
		MIN	NOM	MAX
Contact Pitch	E	0.95 BSC		
Contact Pad Spacing	C		2.60	
Contact Pad Width (X5)	X1			0.60
Contact Pad Length (X5)	Y1			1.10
Contact Pad to Center Pad (X2)	G	0.20		

Notes:

1. Dimensioning and tolerancing per ASME Y14.5M

BSC: Basic Dimension. Theoretically exact value shown without tolerances.

Microchip Technology Drawing C04-3179 Rev A

APPENDIX A: REVISION HISTORY

Revision B (July 2025)

- Updated Package Drawings in [Section 6.0, Packaging Information](#).
- [Section “Product Identification System”](#) was updated to include both dithering feature options.

Revision A (January 2021)

- Converted Micrel document MIC2251 to Microchip data sheet DS20006487A.
- Minor text changes throughout.
- Added “Pin to Pin Compatible with MCP1661/3 (1.2A/1.8A Switch Current)” as a new bullet under [Features](#).

MIC2251

NOTES:

PRODUCT IDENTIFICATION SYSTEM

To order or obtain information, e.g., on pricing or delivery, contact your local Microchip representative or sales office.

<u>PART NO.</u>	<u>-X</u>	<u>X</u>	<u>XX</u>	<u>-XX</u>
Device	Dithering Feature	Junction Temperature Range	Package	Media Type
Device:	MIC2251:	High-Efficiency Low EMI Boost Regulator		
Feature:	-1 =	Dithering Disabled (TSOT Package)		
	-2 =	Dithering Enabled (TSOT Package)		
Temperature:	Y =	-40°C to +125°C (Extended Industrial, RoHS Compliant)		
Package:	D5 =	5-Lead Thin SOT-23		
	ML =	8-Lead Thin DFN, 2 mm x 2 mm x 0.9 mm		
Media Type:	TR =	3,000/Reel for D5 Package		
	TR =	5,000/Reel for ML Package		

Examples:

a) MIC2251YML-TR: High-Efficiency Low EMI Boost Regulator, Extended Industrial 40°C to +125°C Junction Temperature Range, RoHS Compliant, 8-lead DFN Package, 5,000/Reel

b) MIC2251-1YD5-TR: High-Efficiency Low EMI Boost Regulator with Dithering Disabled, Extended Industrial -40°C to +125°C Junction Temperature Range, RoHS Compliant, 5-lead Thin SOT-23 Package, 3,000/Reel

c) MIC2251-2YD5-TR: High-Efficiency Low EMI Boost Regulator with Dithering Enabled, Extended Industrial -40°C to +125°C Junction Temperature Range, RoHS Compliant, 5-lead Thin SOT-23 Package, 3,000/Reel

Note 1: Tape and Reel identifier only appears in the catalog part number description. This identifier is used for ordering purposes and is not printed on the device package. Check with your Microchip Sales Office for package availability with the Tape and Reel option.

MIC2251

NOTES:

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