General Description

The LTP7790 is a CMOS low dropout regulator that operates from 2.3V to 6.5V and provides up to 0.5A of output current. This high output current LDO is ideal for regulation of high-performance analog and mixed-signal circuits operating from 6V down to 1.2V rails. Using an advanced proprietary architecture, the device provides high power supply rejection and low noise and achieves excellent line and load transient response with just a small 4.7μF ceramic output capacitor. Load transient response is typically 1.5μs for a 1mA to 1.5A load step.

The LTP7790 is available in 17 fixed output voltage options. The following voltages are available from stock: 1.3V, 1.8V, 2.5V, 3.0V, 3.3V, 4.2V and 5.0V. Additional voltages that are available by special order are: 1.5V, 1.85V, 2.0V, 2.2V, 2.7V, 2.75V, 2.8V, 2.85V, 3.8V and 4.6V. An adjustable version is also available that allows output voltages that range from 1.2V to V_{IN}-V_{DO} with an external feedback divider.

Features

- Operating Input Voltage Range: 2.3 V to 6.5 V
- Maximum Output Current: 0.5 A
- Low noise: 5 µVrms independent of output voltage at 100 Hz to 100 kHz
- Fast transient response: 1.5 µs for 1 mA to 1.5 A load step
- High Power Supply Ripple Rejection: 60 dB PSRR at 100 kHz
- Initial accuracy: −0.8% (minimum), +0.7% (maximum)
- Accuracy over line, load and temperature: ±1.5%
- Quiescent current, I_{GND} = 0.7 mA with no load
- Low shutdown current: 5 µA at V_{IN} = 5 V
- Stable with small 4.7 µF ceramic output capacitor
- Adjustable and fixed output voltage options: 1.2 V to 5.0 V
- Adjustable output from 1.2 V to $V_{IN} - V_{DO}$
- Precision enable
- Adjustable soft start
- Package: DFN3x3-8L

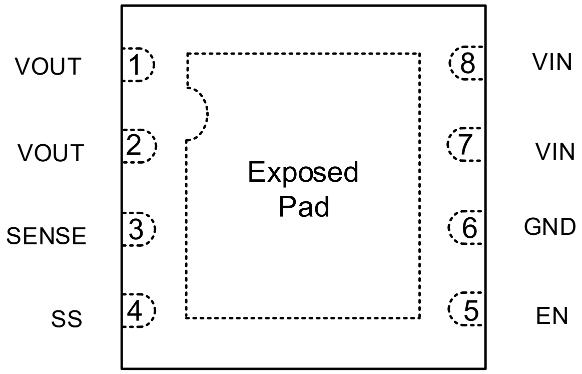
Applications

- Regulation to noise sensitive applications: ADC and DAC circuits, precision amplifiers, PLLs/VCOs and clocking ICs
- Communications and infrastructure
- Medical and healthcare
- Industrial and instrumentation

Ordering Information

Part Number	Package Type	Quantity	Marking Code
LTP7790-AXF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 A
LTP7790-13XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 13
LTP7790-15XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 15
LTP7790-18XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 18
LTP7790-185XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 185
LTP7790-20XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 20
LTP7790-22XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 22
LTP7790-25XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 25
LTP7790-27XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 27
LTP7790-275XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 275
LTP7790-28XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 28
LTP7790-285XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 285
LTP7790-30XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 30
LTP7790-33XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 33
LTP7790-38XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 38
LTP7790-42XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 42
LTP7790-46XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 46
LTP7790-50XF8/R10	DFN3x3-8L	Tape and Reel, 5000	SP0 50

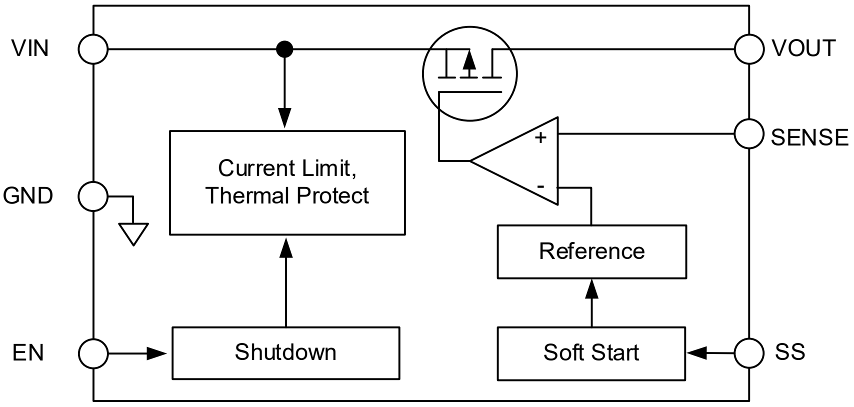
Pin Configurations (Top View)



Pin Function

Pin No.	Symbol	Function
1	VOUT	Regulated Output Voltage. Bypass this pin to GND with a 4.7 µF or greater capacitor.
2	VOUT	Regulated Output Voltage. This pin is internally connected to Pin 1.
3	SENSE	Sense Input. Connect this pin as close as possible to the load for best load regulation. Use an external resistor divider to set the output voltage higher than the fixed output voltage.
4	SS	Soft Start. A 1 nF external capacitor connected to SS results in a 1.0 ms start-up time.
5	EN	Regulator Enable. Drive EN high to turn on the regulator; drive EN low to turn off the regulator. For automatic startup, connect EN to VIN (Pin 7 or Pin 8).
6	GND	Ground.
7	VIN	Regulator Input Supply. Bypass this pin to GND with a 4.7 µF or greater capacitor.
8	VIN	Regulator Input Supply. This pin is internally connected to Pin 7.
9	EP	Exposed Pad. The exposed pad is on the bottom of the package. The exposed pad enhances thermal performance and is electrically connected to GND inside the package. Connect the exposed pad to the ground plane on the board to ensure proper operation.

Block Diagram



Applications Information

General

The LTP7790 is a low quiescent current, low dropout linear regulator that operates from 2.3 V to 6.5 V and provides up to 0.5 A of load current. Drawing a low 3.5 mA of quiescent current at full load(typical) makes the LTP7790 ideal for portable equipment.

Input Bypass Capacitor

Connecting a 4.7 µF capacitor from VIN to GND reduces the circuit sensitivity to PCB layout, especially when long input traces or a high source impedance is encountered. If greater than 4.7 µF of output capacitance is required, increase the input capacitor to match it.

Output Capacitor

The LTP7790 is designed for operation with small, space-saving ceramic capacitors but functions with most commonly used capacitors as long as care is taken with regard to the ESR value. The ESR of the output capacitor affects the stability of the LDO control loop. A minimum of 4.7 µF capacitance with an ESR of 0.05 Ω or less is recommended to ensure the stability of the LTP7790. Transient response to changes in load current is also affected by output capacitance. Using a larger value of output capacitance improves the transient response of the LTP7790 to large changes in load current.

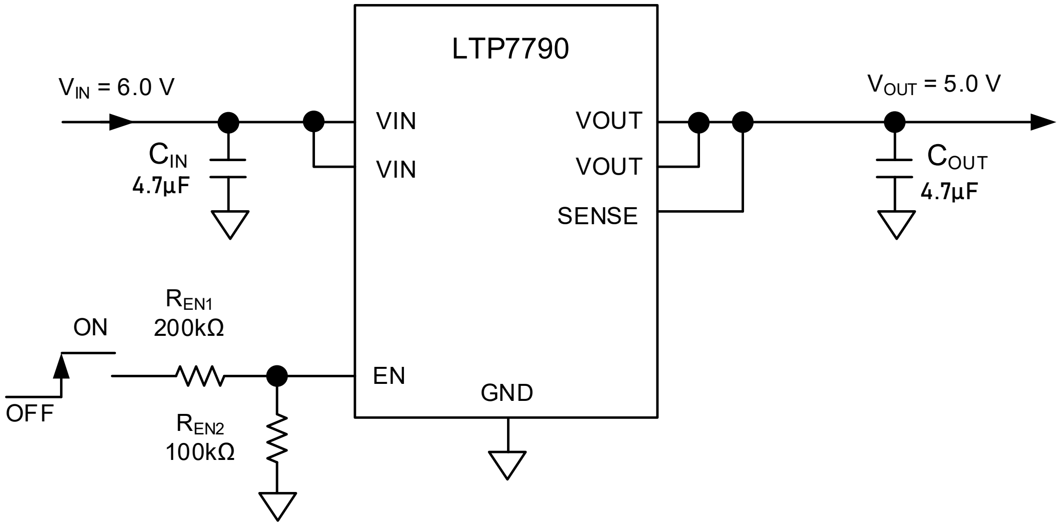
Programmable Precision Enable

The LTP7790 has an EN pin to turn on or turn off the regulator, When the EN pin is in logic high, the regulator will be turned on. The shutdown current is almost 5 µA typical. The EN pin may be directly tied to VIN to keep the part on. The Enable input is CMOS logic and cannot be left floating.

The upper and lower thresholds are user programmable and can be set higher than the nominal 1.2 V threshold by using two resistors. The resistance values, R_{EN1} and R_{EN2}, can be determined from

$R_{EN1} = R_{EN2} * (V_{IN} - 1.2\ V)/1.2\ V$

where:
R_{EN2} is nominally 10 kΩ to 100 kΩ.
V_{IN} is the desired turn-on voltage.
The hysteresis voltage increases by the factor $(R_{EN1} + R_{EN2})/R_{EN1}$



Applications Information (Cont.)

Current Limit Protection

When output current at the OUT pin is higher than current limit threshold, the current limit protection will be triggered and clamp the output current to approximately 3.3 A to prevent over-current and to protect the regulator from damage due to overheating.

Soft Start

The LTP7790 incorporates a Soft-Start function that reduces the start-up current surge into the output capacitor (C_{OUT}) by allowing V_{OUT} to rise slowly to the final value.

Thermal Shutdown

When the die temperature exceeds the Thermal Shutdown point (T_{SD} =150°C typically) the device goes to disabled state and the output voltage is not delivered until the die temperature decreases to 135°C. The Thermal Shutdown feature provides a protection from a catastrophic device failure at accidental overheating. This protection is not intended to be used as a substitute for proper heat sinking.

Power Dissipation and Heat sinking

The maximum power dissipation supported by the device is dependent upon board design and layout. Mounting pad configuration on the PCB, the board material and the ambient temperature affect the rate of junction temperature rise for the part. The maximum power dissipation the LTP7790 device can handle is given by:

$$P_{D(MAX)} = (T_{J(MAX)} - T_A) / \theta_{JA}$$

where $T_{J(MAX)}$ is the maximum junction temperature, T_A is the ambient temperature, and θ_{JA} is the junction to ambient thermal resistance. For recommended operating condition specifications the maximum junction temperature is 150°C and T_A is the ambient temperature. The junction to ambient thermal resistance, θ_{JA}, is layout dependent. The maximum power dissipation depends on the operating ambient temperature for fixed $T_{J(MAX)}$ and thermal resistance, θ_{JA}.

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage	V_{IN}	-0.3 to 7	V
Output Voltage	V_{OUT}	−0.3 to V_{IN}	V
Enable Voltage	V_{EN}	−0.3 to 7	V
Soft-start Voltage	V_{SS}	−0.3 to V_{IN}	V
Sense Voltage	V_{SENSE}	−0.3 to 7	V
Operating Junction Temperature	T_J	-40 to +125	°C
Storage Temperature	T_{STG}	-65 to +150	°C
Thermal Resistance, Junction-to-Air	θ_{JA}	36.4	°C /W

ESD Ratings

Parameter	Level	Unit
Human Body Modle(HBM), per ANSI/ESDA/JEDEC JS-001	±6000	V
Charged Device Modle(CDM), per ANSI/ESDA/JEDEC JS-002	±2000	V

Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
Input Voltage	V_{IN}	2.3		6.5	V
Output Current	I_{OUT}		0.5		A
Effective Input Ceramic Capacitor Value	C_{IN}	3.3	4.7		µF
Effective Output Ceramic Capacitor Value	C_{OUT}		4.7		µF

Electrical Characteristics

(V_{IN}= $V_{OUT-NOM}$ + 0.5 V or 2.3 V, EN = V_{IN}, I_{OUT}=10 mA, T_a= 25 °C, C_{IN}= C_{OUT} = 4.7 µF, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage Operation Range	V_{IN}		2.3		6.5	V
Fixed Output Voltage Accuracy	V_{OUT}	I_{LOAD} = 10 mA, T_J= 25°C	-0.8		0.7	%
		I_{LOAD} = 100 µA to 0.5A, V_{IN} = (V_{OUT} + 0.5 V) to 6.5 V	-1.5		1.5	
Adjustable Output Voltage Accuracy	V_{SENSE}	I_{LOAD} = 10 mA	1.194	1.2	1.212	V
		I_{LOAD} = 100 µA to 0.5A, V_{IN} = (V_{OUT} + 0.5 V) to 6.5 V	1.182		1.218	
Line Regulation	$\Delta V_{O(\Delta VI)}$	V_{IN} = $V_{OUT-NOM}$+0.5 V to 6.5 V	-0.1		0.1	%/V
Load Regulation	$\Delta V_{O(\Delta IO)}$	I_{OUT} = 100 µA to 0.5 A		0.1	0.3	%/A
Load Current	I_{LOAD}				0.5	A
Ground Current	I_{GND}	I_{OUT} = 0 µA		0.7	2	mA
		I_{OUT} = 0.5 A		3.5	5	
Shutdown Current	I_{SHDN}	V_{EN} = 0 V, I_{OUT} = 0 mA, V_{IN} = 5 V		5	10	µA
Output Current Limit	I_{OLIM}	V_{I_LOAD} Sweep from 0.6A to 1A at Step=20mA, V_{IN}=2.3V ,V_{EN}=2.3V, when V_{OUT} = 0.9*V_{NOM}(V_{NOM}=1.2) Measure I_LOAD	2.4	3.2	3.9	A
Soft Start Current	I_{SS}	V_{IN} = 5 V	0.5	1	1.5	µA
Dropout Voltage	V_{DO}	I_{OUT} = 500 mA, V_{OUT} = 3 V		35	70	mV
Power Supply Rejection Ratio	PSRR	100 kHz, V_{IN} = 4.0 V, V_{OUT} = 3 V, I_{LOAD} = 1.5A		60		dB
		100 kHz, V_{IN} = 3.5 V, V_{OUT} = 3 V, I_{LOAD} = 1.5A		53		
		100 kHz, V_{IN} = 3.3 V, V_{OUT} = 3 V, I_{LOAD} = 1.5A		42		
		1 MHz, V_{IN} = 4.0 V, V_{OUT} = 3 V, I_{LOAD} = 1.5A		31		
		1 MHz, V_{IN} = 3.5 V, V_{OUT} = 3 V, I_{LOAD} = 1.5A		30		
		1 MHz, V_{IN} = 3.3 V, V_{OUT} = 3 V, I_{LOAD} = 1.5A		20		
Output Voltage Noise	V_N	10 Hz to 100 kHz, all fixed output voltages		6		μV_{RMS}
		100 Hz to 100 kHz, all fixed output voltages		5		
		100 Hz, all fixed output voltages		110		nV/√Hz
		1 kHz, all fixed output voltages		40		
		10 kHz, all fixed output voltages		20		
		100 kHz, all fixed output voltages		12		
Start-up time	t_{START}	V_{OUT} = 5 V, C_{SS} = 0 nF		380		µs
		V_{OUT} = 5 V, C_{SS} = 1 nF		1		ms

Electrical Characteristics (Cont.)

(V_{IN}= $V_{OUT\text{-}NOM}$ + 0.5 V or 2.3 V, EN = V_{IN}, I_{OUT}=10 mA, T_a= 25 °C, C_{IN}= C_{OUT} = 4.7 µF, unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage Rising	$UVLO_{RISE}$	V_{IN} = 2.3 V to 6.5 V			2.28	V
Input Voltage Falling	$UVLO_{FALL}$		1.94			V
Internal UVLO Hysteresis	$UVLO_{HYS}$			200		mV
Transient Load Response	t_{TR_REC}	Time for output voltage to settle within ±V_{SETTLE} from V_{DEV} for a 1 mA to 1.5 A load step, load step rise time = 400 ns	1.5			µs
	V_{DEV}	Output voltage deviation due to 1 mA to 1.5 A load step	35			mV
	V_{SETTLE}	Output voltage deviation after transient load response time (t_{TR_REC}) has passed, V_{OUT} = 5 V, C_{OUT} = 4.7 µF	0.1			%
EN Input Logic High	$V_{EN\text{-}HIGH}$	V_{IN} = 2.3 V to 6.5 V	1.27			V
EN Input Logic Low	$V_{EN\text{-}LOW}$				0.4	V
EN Input Logic Hysteresis	$V_{EN\text{-}HY}$			90		mV
EN Input Logic High	$V_{EN\text{-}HIGH}$	V_{IN} = 2.3 V to 6.5 V, EN = V_{IN} or GND, From EN rising from 0 V to V_{IN} to 0.1 V × V_{OUT}	1.11	1.2	1.27	V
EN Input Logic Low	$V_{EN\text{-}LOW}$		1.01	1.1	1.16	V
EN Input Logic Hysteresis	$V_{EN\text{-}HY}$			100		mV
EN Input Leakage Current	$I_{EN\text{-}LK}$			0.1		µA
EN Input Delay Time	$T_{EN\text{-}DLY}$			100		µs
VOUT Pull-down Resistance	$V_{OUT\text{-}PULL}$	EN = 0 V, V_{OUT} = 1 V		4		kΩ
Thermal Shutdown Temperature	T_{SD}	Temperature rising from T_J=+25°C		150		°C
Thermal Shutdown Hysteresis	T_{SDH}	Temperature falling from T_{SD}		15		°C

Typical Performance Characteristics

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

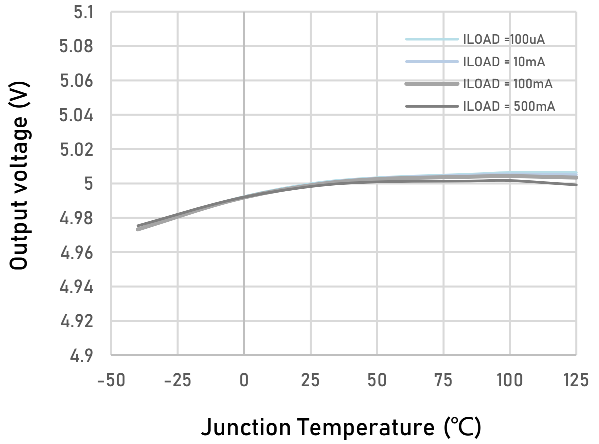


Figure 1. Output voltage vs Junction Temperature

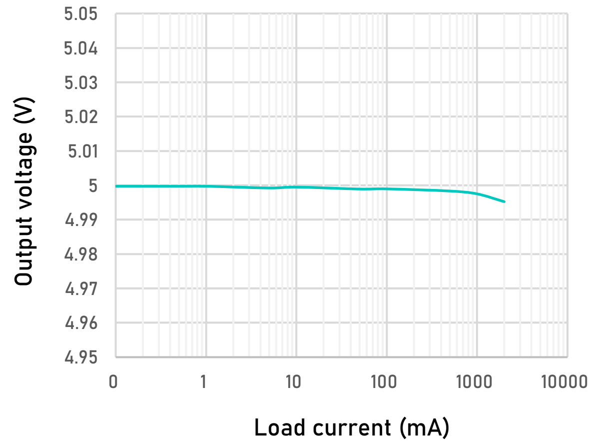


Figure 2. Output voltage vs Load current

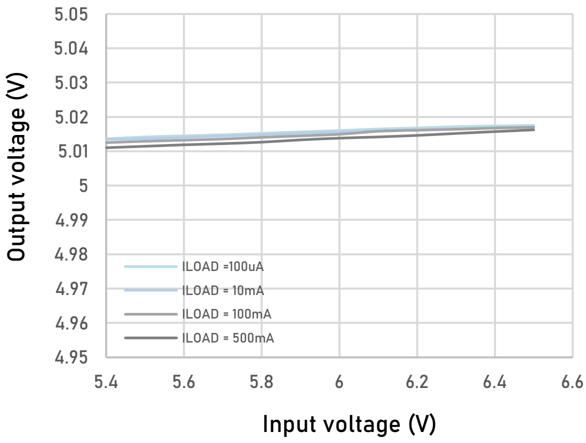


Figure 3. Output voltage vs Input voltage

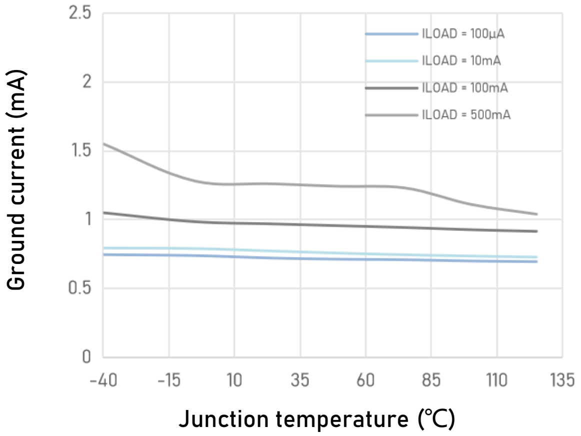


Figure 4. Ground current vs Junction temperature

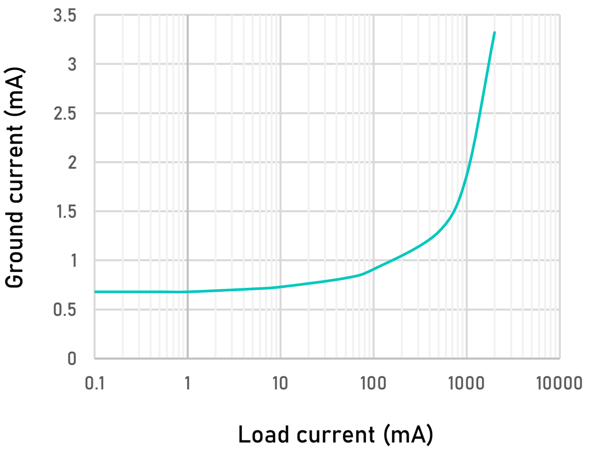


Figure 5. Ground current vs Load current

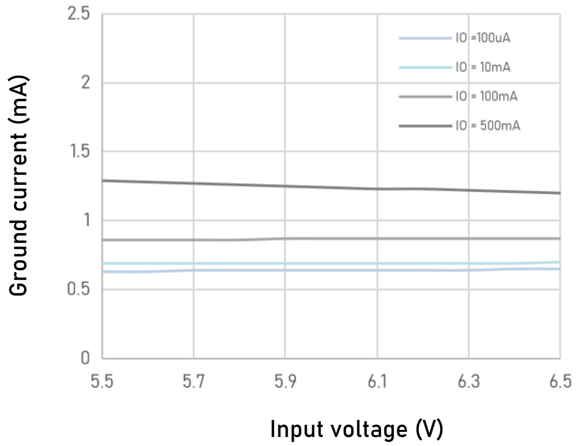


Figure 6. Ground current vs Input voltage

Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

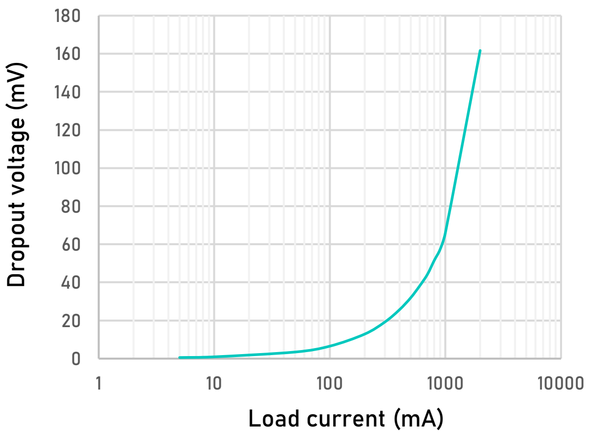


Figure 7. Dropout voltage vs Load current
(1.2 V Adjustable version & Vout = 5 V)

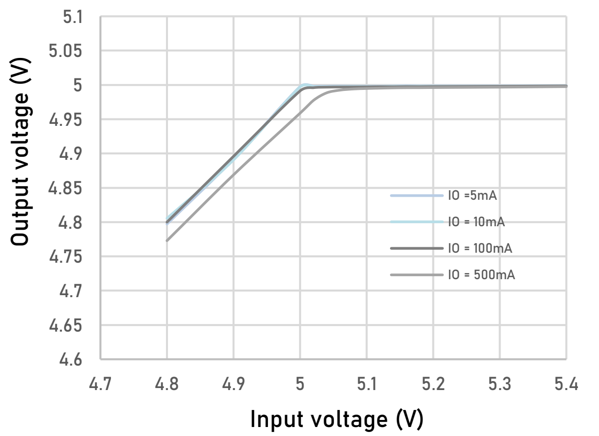


Figure 8. Output voltage vs Input voltage in dropout
(1.2 V Adjustable version & Vout = 5 V)

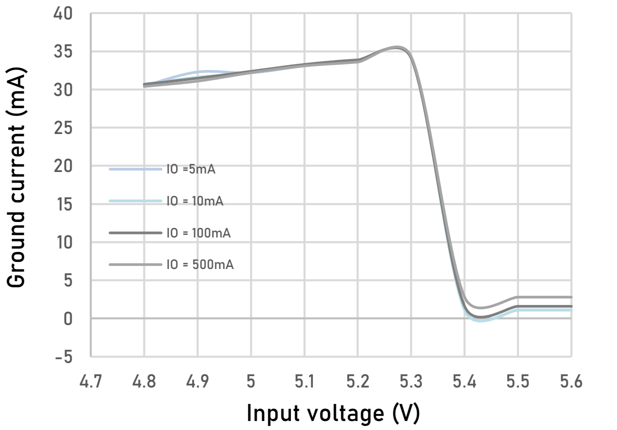


Figure 9. Ground current vs Input voltage in dropout
(1.2 V Adjustable version & Vout = 5 V)

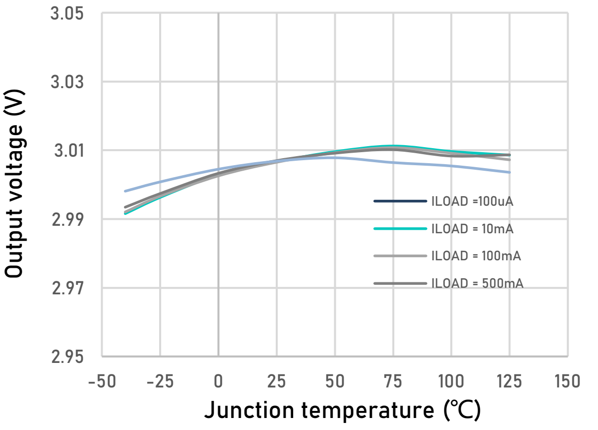


Figure 10. Output voltage vs Junction temperature
(Vout = 3 V)

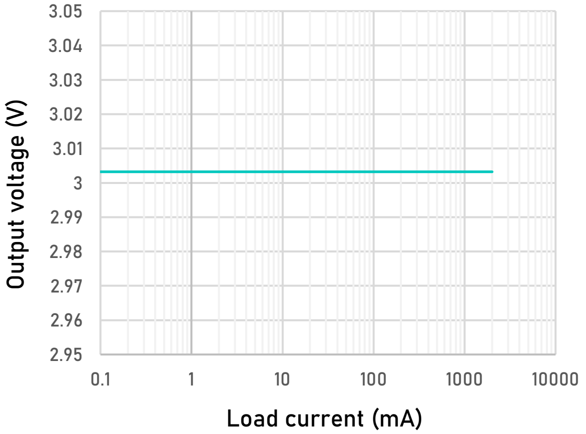


Figure 11. Output voltage vs Load current
(Vout = 3 V)

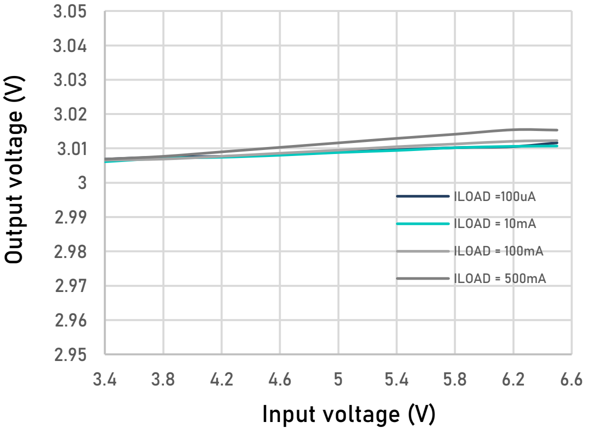


Figure 12. Output voltage vs Input voltage
(Vout = 3 V)

Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

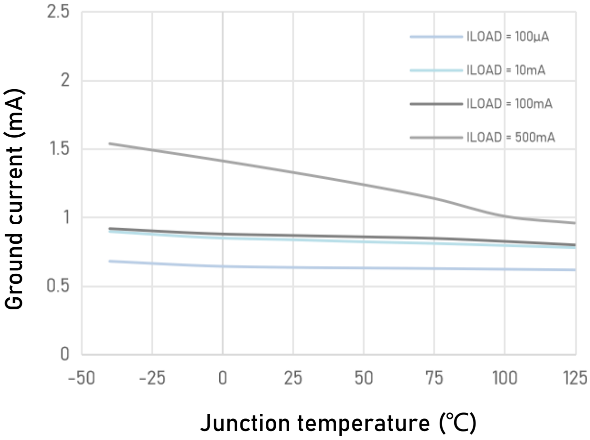


Figure 13. Ground current vs Junction temperature (Vout = 3 V)

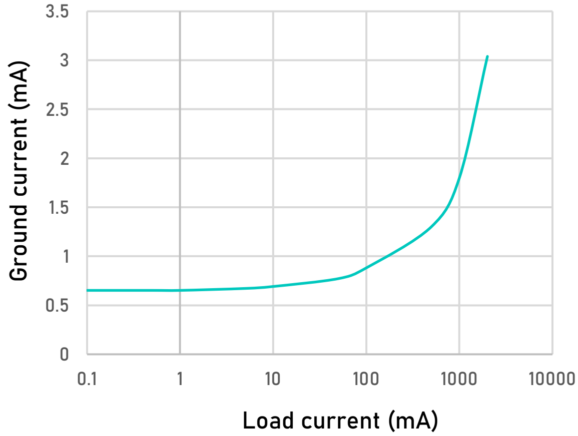


Figure 14. Ground current vs Load current (Vout = 3 V)

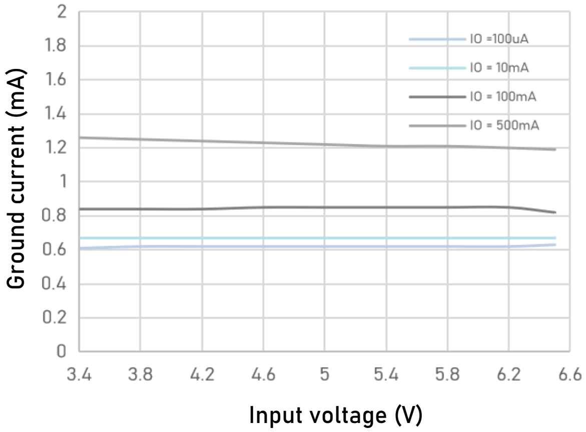


Figure 15. Ground current vs Input voltage (Vout = 3 V)

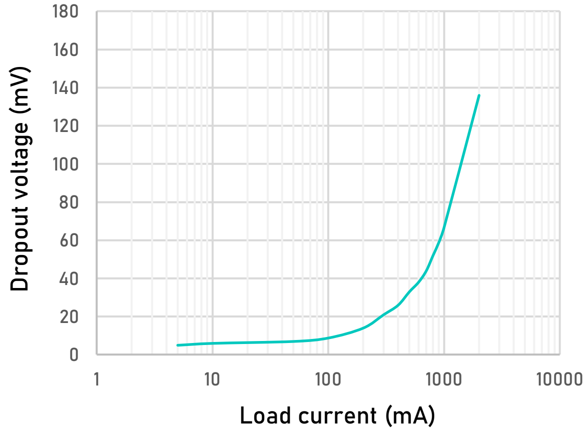


Figure 16. Dropout voltage vs Load current (Vout = 3 V)

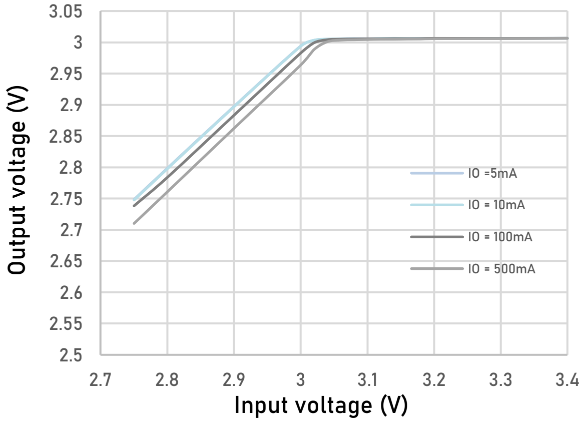


Figure 17. Output voltage vs Input voltage in dropout (Vout = 3 V)

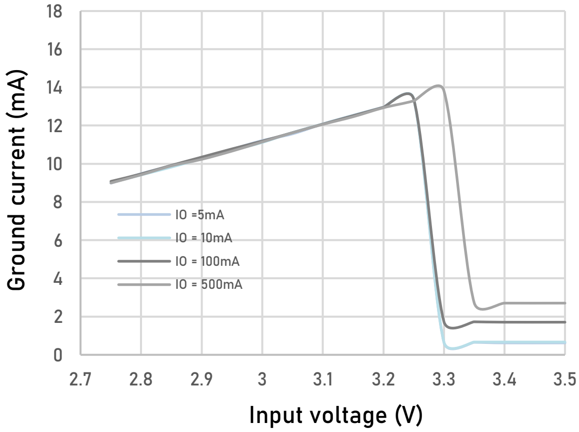


Figure 18. Ground current vs Input voltage in dropout (Vout = 3 V)

Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

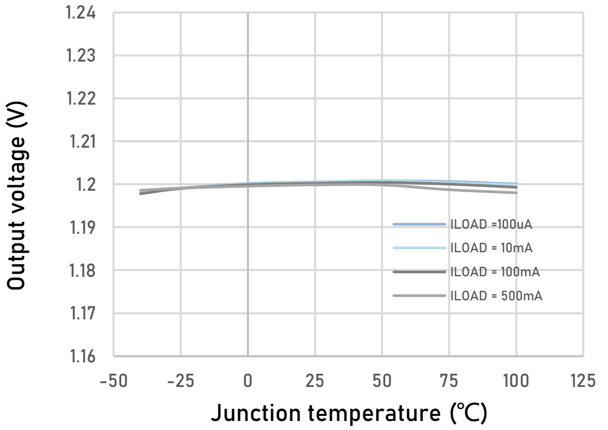


Figure 19. Output voltage vs Junction temperature
Adjustable version (Vout = 1.2 V)

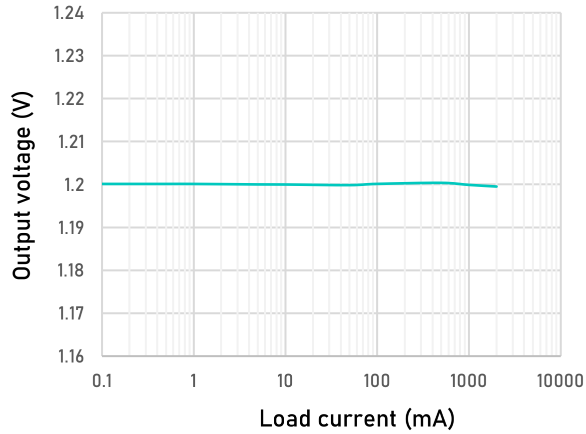


Figure 20. Output voltage vs Load current
Adjustable version (Vout = 1.2 V)

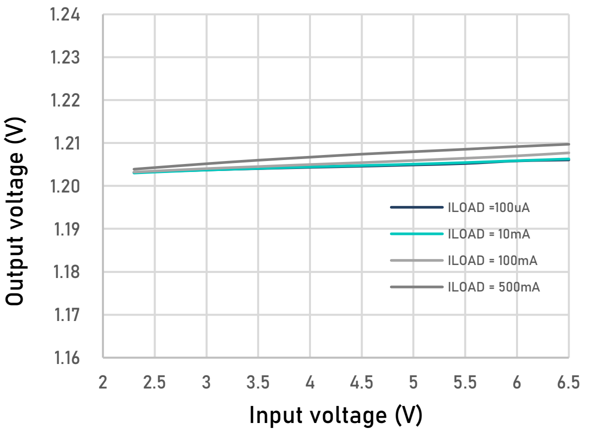


Figure 21. Output voltage vs Input voltage
Adjustable version (Vout = 1.2 V)

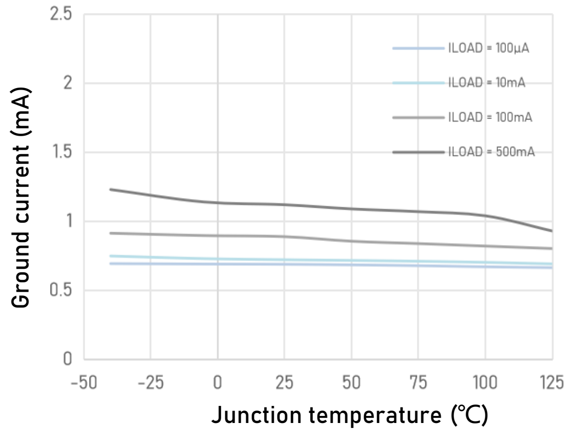


Figure 22. Ground current vs Junction temperature
Adjustable version (Vout = 1.2 V)

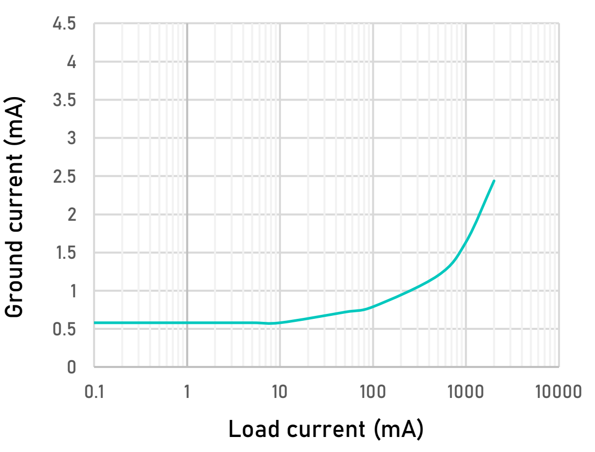


Figure 23. Ground current vs Load current
Adjustable version (Vout = 1.2 V)

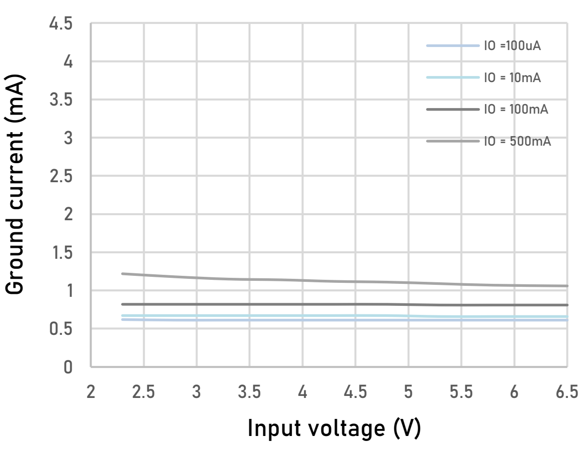


Figure 24. Ground current vs Input voltage
Adjustable version (Vout = 1.2 V)

Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

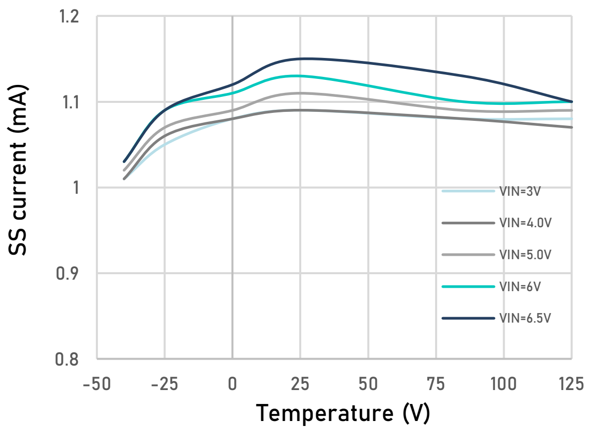


Figure 25. Soft start current vs Temperature, Input voltage (1.2 V Adjustable version & Vout = 5 V)

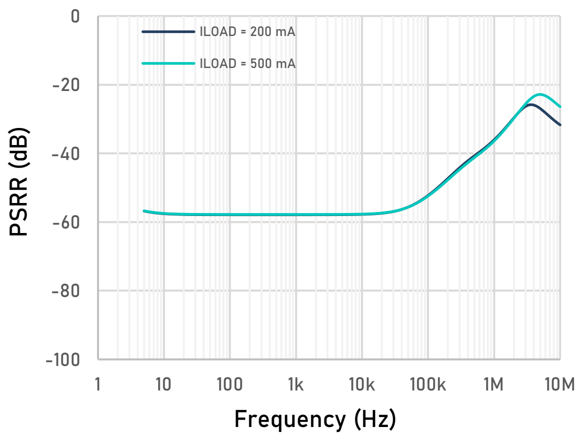


Figure 26. Power supply rejection ratio vs Frequency (Vout = 3 V, 800mV headroom)

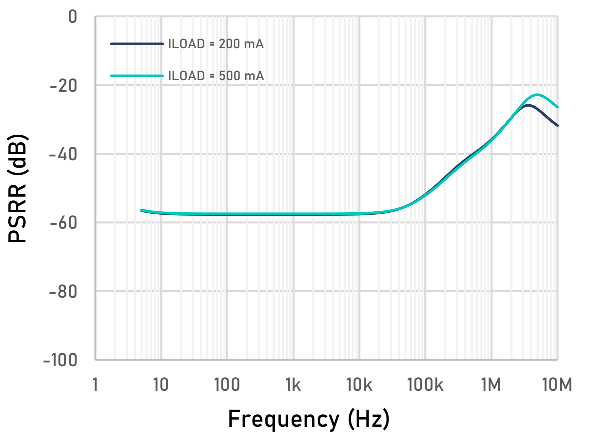


Figure 27. Power supply rejection ratio vs Frequency (Vout = 3 V, 500mV headroom)

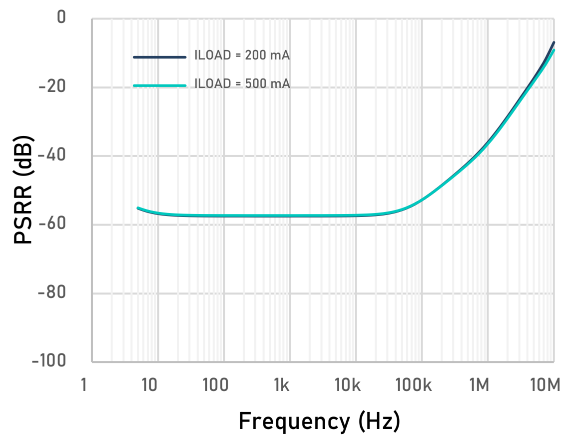


Figure 28. Power supply rejection ratio vs Frequency (1.2 V Adjustable version & Vout = 5 V, 800mV headroom)

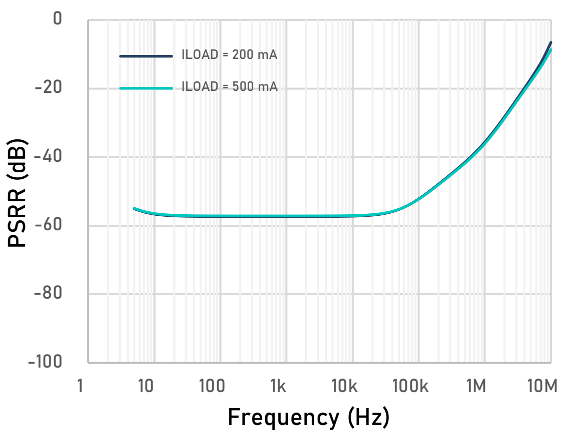


Figure 29. Power supply rejection ratio vs Frequency (1.2 V Adjustable version & Vout = 5 V, 500mV headroom)

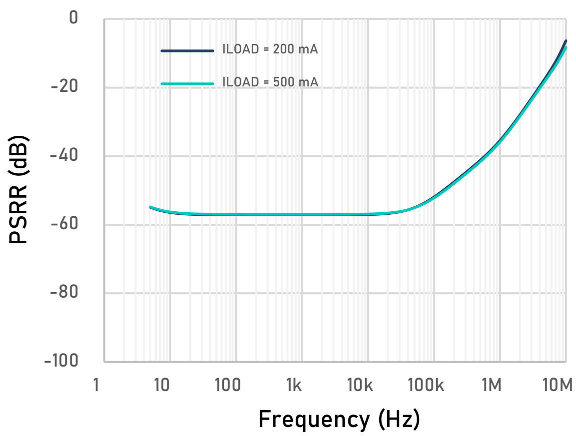


Figure 30. Power supply rejection ratio vs Frequency (1.2 V Adjustable version & Vout = 5 V, 400mV headroom)

Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

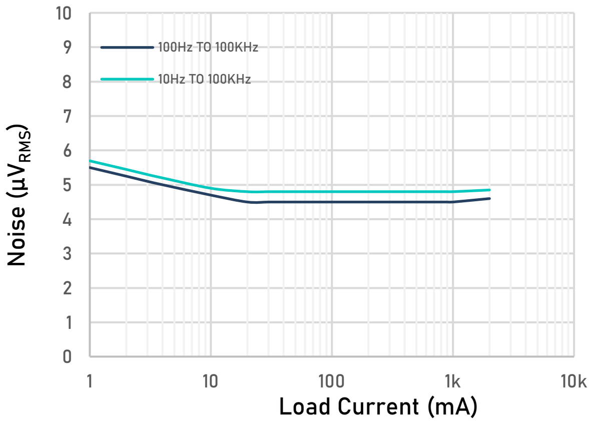


Figure 31. RMS Output Noise vs Load Current (Adjustable version Vout = 1.2 V)

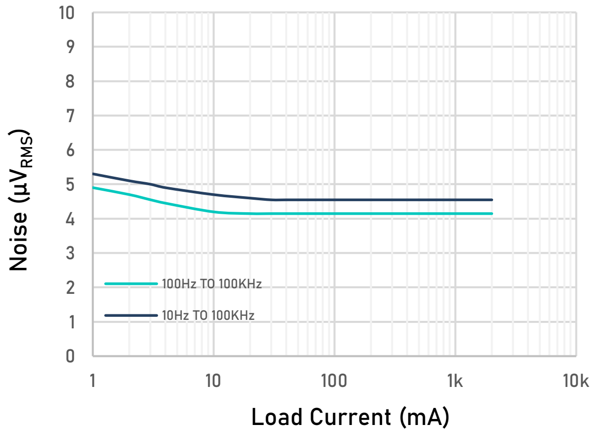


Figure 32. RMS Output Noise vs Load Current (Vout = 3 V)

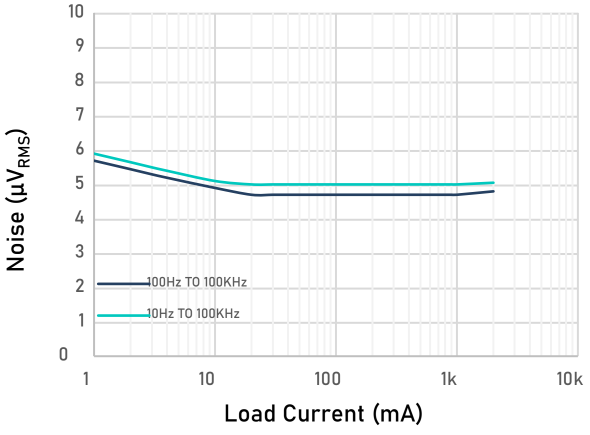


Figure 33. RMS Output Noise vs Load Current (1.2 V Adjustable version & Vout = 5 V)

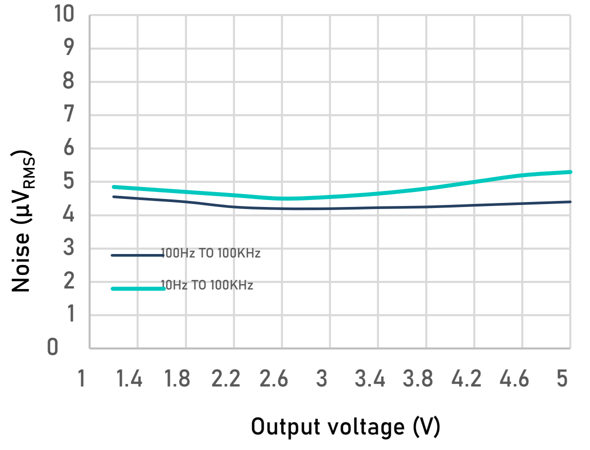


Figure 34. RMS Output Noise vs Output voltage (Load current = 100 mA)

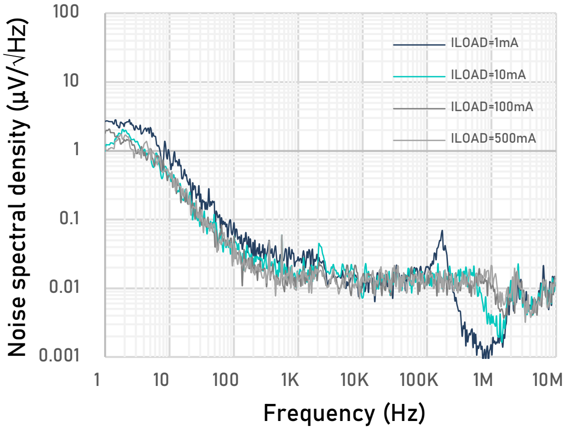


Figure 35. Output noise spectral density vs Frequency (Adjustable version Vout = 1.2 V)

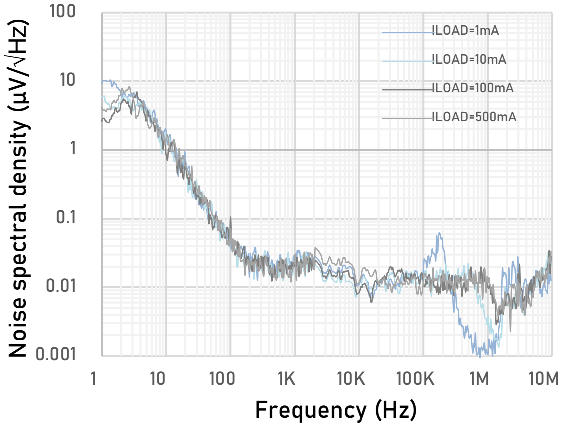


Figure 36. Output noise spectral density vs Frequency (Vout = 3 V)

Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.

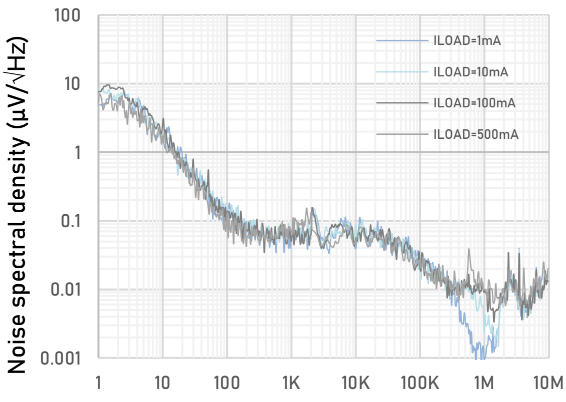


Figure 37. Output noise spectral density vs Frequency (1.2 V Adjustable version & Vout = 5 V)

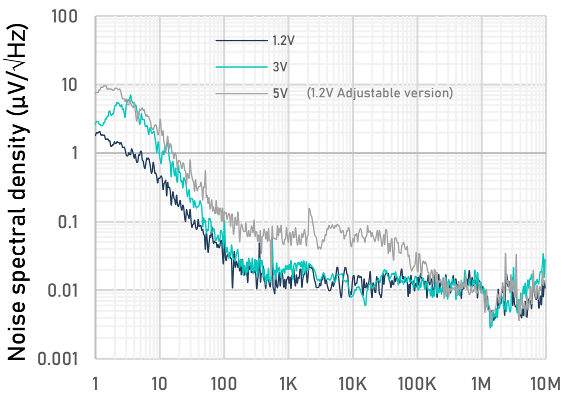


Figure 38. Output noise spectral density vs Frequency (Different output voltages, I_{LOAD} = 100 mA)

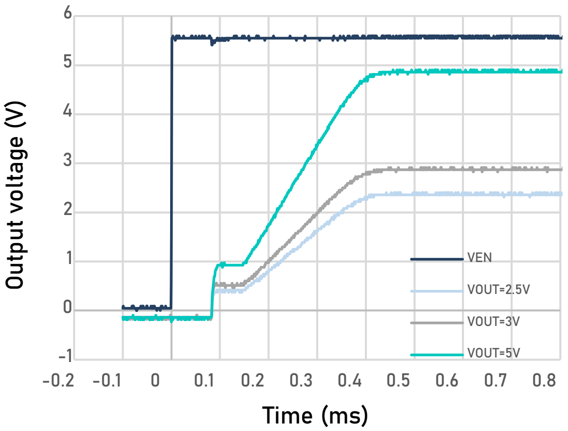


Figure 39. Typical start-up behavior

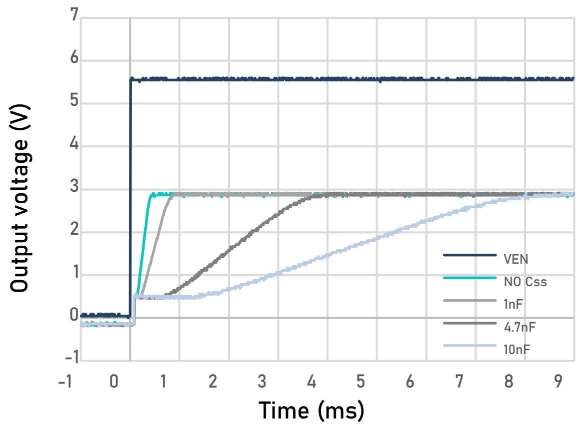
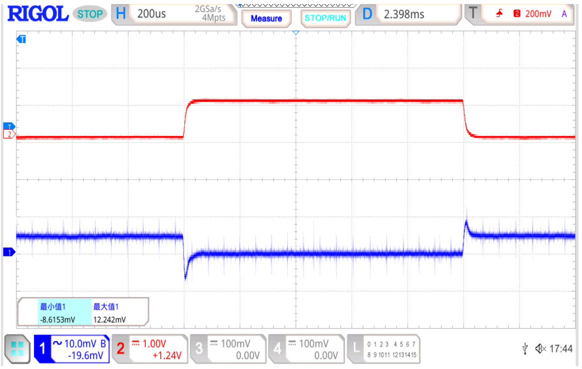
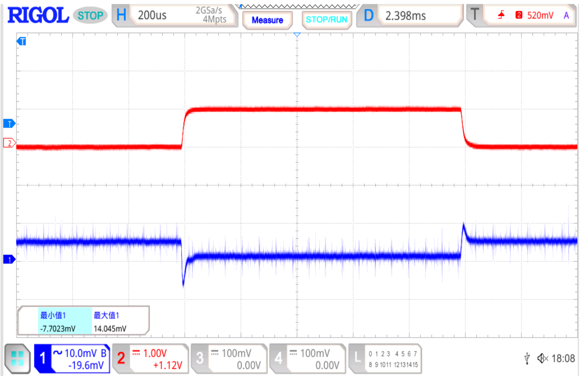


Figure 40. Typical soft start behavior, Different Cssvalues



Time (200µs/div)

Figure 41. Load Transient Response, I_{LOAD} = 10 mA to 1 A, 1.2 V Adjustable version & Vout = 5 V, V_{IN} = 5.5 V, CH1 = V_{OUT}, CH2 = I_{LOAD}

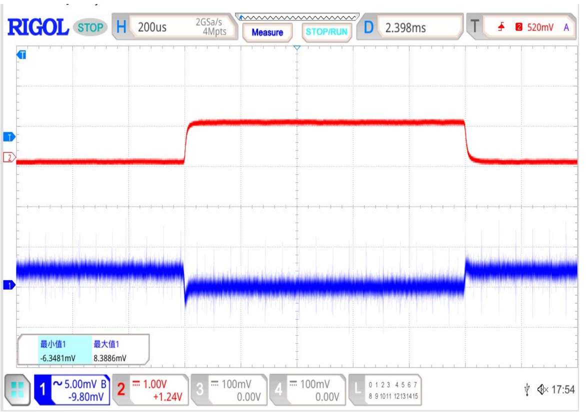


Time (200µs/div)

Figure 42. Load Transient Response, I_{LOAD} = 100 mA to 1.6 A, 1.2 V Adjustable version & Vout = 5 V, V_{IN} = 5.5 V, CH1 = V_{OUT}, CH2 = I_{LOAD}

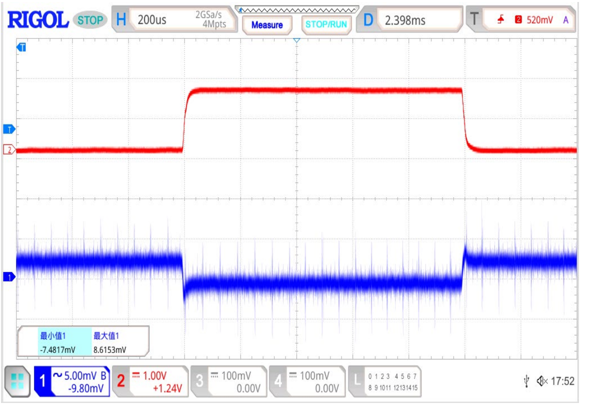
Typical Performance Characteristics (Cont.)

Note: Typical Characteristics are intended to be used as reference data; they are not guaranteed.



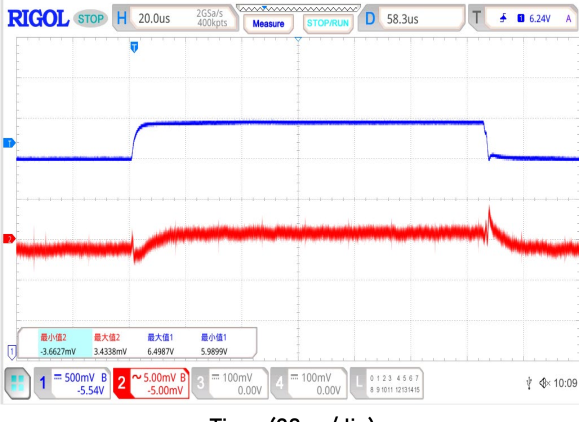
Time (200µs/div)

Figure 43. Load Transient Response, I_{LOAD} = 10 mA to 1 A, Adjustable Version , V_{OUT} = 1.2 V, V_{IN} = 2.5 V, CH1 = V_{OUT}, CH2 = I_{LOAD}



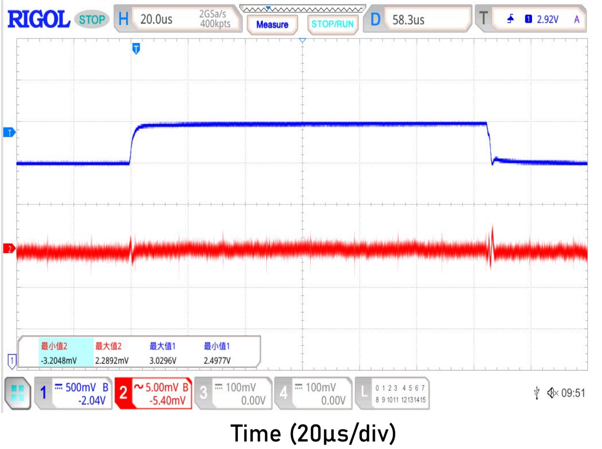
Time (200µs/div)

Figure 44. Load Transient Response, I_{LOAD} = 100 mA to 1.6 A, Adjustable Version , V_{OUT} = 1.2 V, V_{IN} = 2.5 V, CH1 = V_{OUT}, CH2 = I_{LOAD}



Time (20µs/div)

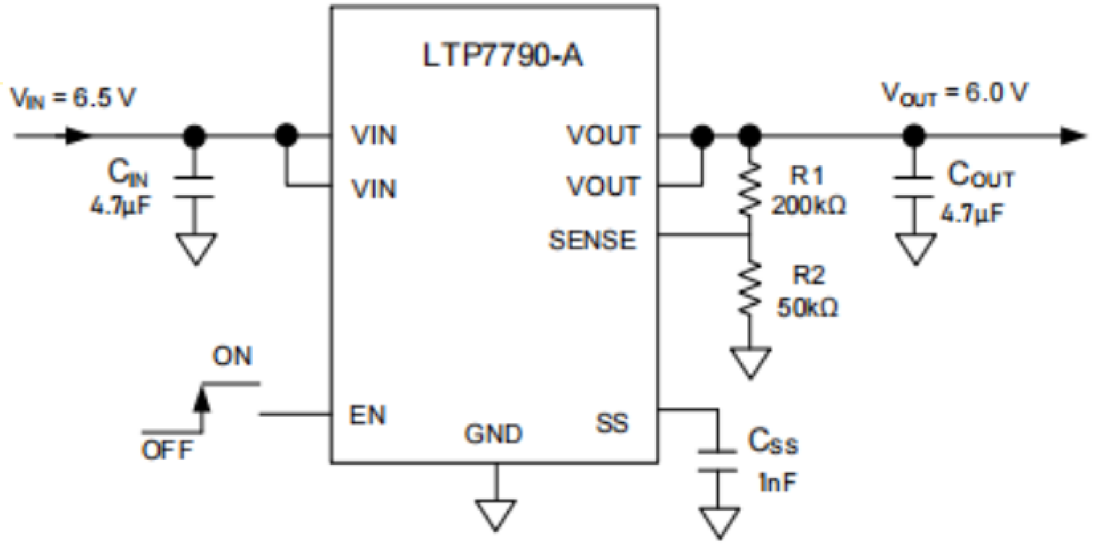
Figure 45. Line Transient Response, 6 V to 6.5 V, I_{LOAD} = 500 mA, 1.2 V Adjustable version & Vout = 5 V, CH1 = V_{IN}, CH2 = V_{OUT}



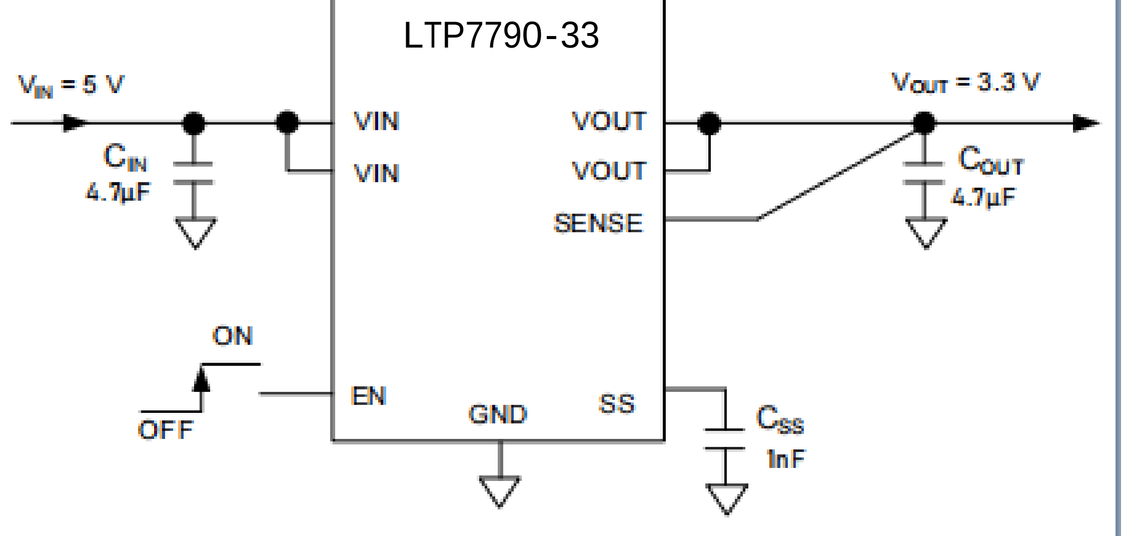
Time (20µs/div)

Figure 46. Line Transient Response, 2.5 V to 3 V, I_{LOAD} = 500 mA, Adjustable Version , V_{OUT} = 1.2V, CH1 = V_{IN}, CH2 = V_{OUT}

Application Circuits



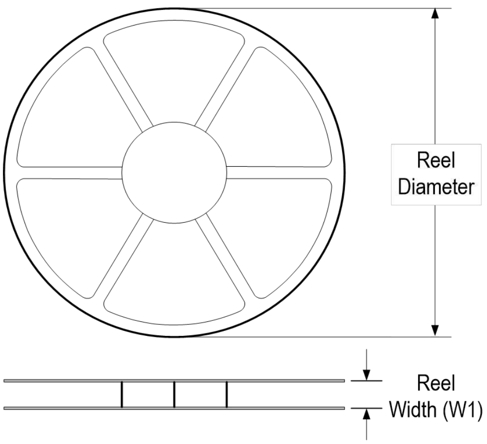
Adjustable Output Voltage Application with Adjustable Output Version
LTP7790-A: V_{OUT} = 1.2V*(1+R1/R2)



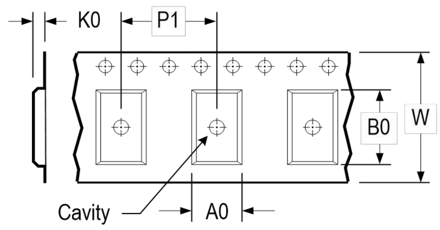
Fixed Output Voltage, 3.3 V

Tape and Reel Information

REEL DIMENSIONS

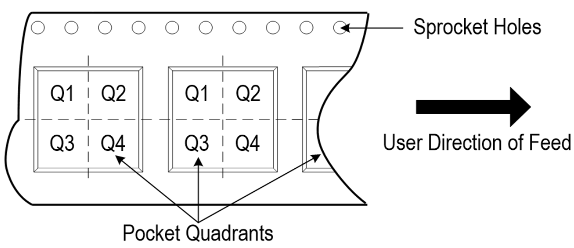


TAPE DIMENSIONS



A0	Dimension designed to accommodate the component width
B0	Dimension designed to accommodate the component length
K0	Dimension designed to accommodate the component thickness
W	Overall width of the carrier tape
P1	Pitch between successive cavity centers

QUADRANT ASSIGNMENTS FOR PIN 1 ORIETATION IN TAPE

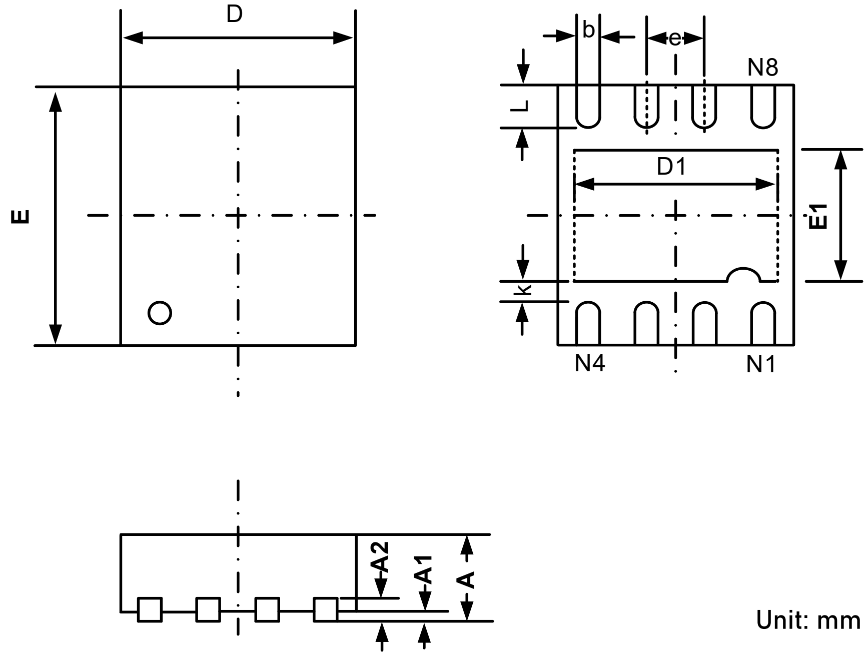


*All dimensions are nominal

Device	Package Type	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin 1 Quadrant
LTP7790-xxF8/R10	DFN3×3	8	5 000	330	12.5	3.3	3.3	1.1	8.0	12.0	Q1

Package Dimension

DFN3x3-8L



Unit: mm

Symbol	Dimensions In Millimeters	
	Min	Max
A	0.700	0.800
A1	0.000	0.050
A2	0.203REF	
b	0.180	0.300
D	2.900	3.100
D1	2.200	2.400
E	2.900	3.100
E1	1.400	1.600
e	0.650BSC	
L	0.375	0.575
k	0.200	

Important Notice

Linearin is a global fabless semiconductor company specializing in advanced high-performance high-quality analog/mixed-signal IC products and sensor solutions. The company is devoted to the innovation of high performance, analog-intensive sensor front-end products and modular sensor solutions, applied in multi-market of medical & wearable devices, smart home, sensing of IoT, and intelligent industrial &smart factory (industrie 4.0). Linearin's product families include widely-used standard catalog products, solution-based application specific standard products (ASSPs) and sensor modules that help customers achieve faster time-to-market products. Go to http://www.linearin.com for a complete list of Linearin product families.

For additional product information, or full datasheet, please contact with the Linearins Sales Department or Representatives.