MAX6126

Ultra-High-Precision, Ultra-Low-Noise, Series Voltage Reference

General Description

The MAX6126 is an ultra-low-noise, high-precision, lowdropout voltage reference. This family of voltage references feature curvature-correction circuitry and high-stability, laser-trimmed, thin-film resistors that result in 3ppm/°C (max) temperature coefficients and an excellent ±0.02% (max) initial accuracy. The proprietary low-noise reference architecture produces a low flicker noise of 1.3µV_{P-P} and wideband noise as low as 60nV/ \sqrt{Hz} (2.048V output) without the increased supply current usually found in low-noise references. Improve wideband noise to 35nV/√Hz and AC power-supply rejection by adding a 0.1µF capacitor at the noise reduction pin. The MAX6126 series mode reference operates from a wide 2.7V to 12.6V supply voltage range and load-regulation specifications are guaranteed to be less than 0.025Ω for sink and source currents up to 10mA. These devices are available over the automotive temperature range of -40°C to +125°C.

The MAX6126 typically draws $380\mu A$ of supply current and is available in 2.048V, 2.500V, 2.800V, 3.000V, 3.000V, 3.600V, 4.096V, and 5.000V output voltages. The MAX6126 also feature dropout voltages as low as 200mV. Unlike conventional shunt-mode (two-terminal) references that waste supply current and require an external resistor, the MAX6126 offers supply current that is virtually independent of supply voltage and does not require an external resistor. The MAX6126 is stable with $0.1\mu F$ to $10\mu F$ of load capacitance.

The MAX6126 is available in the tiny 8-pin μ MAX[®], as well as 8-pin SO packages.

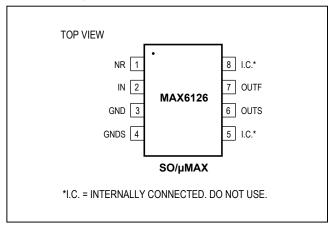
Applications

- High-Resolution A/D and D/A Converters
- ATE Equipment
- High-Accuracy Reference Standard
- Precision Current Sources
- Digital Voltmeters
- High-Accuracy Industrial and Process Control

Benefits and Features

- Ultra-Low 1.3µV_{P-P} Noise (0.1Hz to 10Hz, 2.048V Output)
- Ultra-Low 3ppm/°C (max) Temperature Coefficient
- ±0.02% (max) Initial Accuracy
- Wide (V_{OUT} + 200mV) to 12.6V Supply Voltage Range
- Low 200mV (max) Dropout Voltage
- 380µA Quiescent Supply Current
- 10mA Sink/Source-Current Capability
- Stable with C_{LOAD} = 0.1μF to 10μF
- Low 20ppm/1000hr Long-Term Stability
- 0.025Ω (max) Load Regulation
- 20μV/V (max) Line Regulation
- Force and Sense Outputs for Remote Sensing

Pin Configuration



Ordering Information continued at end of data sheet.

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Ordering Information

PART	TEMP RANGE	PIN- PACKAGE	OUTPUT VOLTAGE (V)	MAXIMUM INITIAL ACCURACY (%)	MAXIMUM TEMPCO (-40°C to +85°C) (ppm/°C)
MAX6126AASA21+	-40°C to +125°C	8 SO	2.048	0.02	3
MAX6126BASA21+	-40°C to +125°C	8 SO	2.048	0.06	5
MAX6126A21+	-40°C to +125°C	8 µMAX	2.048	0.06	3

⁺Denotes a lead(Pb)-free/RoHS-compliant package.



MAX6126

Ultra-High-Precision, Ultra-Low-Noise, Series Voltage Reference

Absolute Maximum Ratings

(All voltages referenced to GND)	Operating Temperature Range40°C to +125°C
GNDS0.3V to +0.3V	Junction Temperature+150°C
IN0.3V to +13V	Storage Temperature Range65°C to +150°C
OUTF, OUTS, NR0.3V to the lesser of (V _{IN} + 0.3V) or +6V	Lead Temperature (soldering, 10s)+300°C
Output Short Circuit to GND or IN	Soldering Temperature (reflow)+260°C
Continuous Power Dissipation (T _A = +70°C)	
8-Pin µMAX (derate 4.5mW/°C above +70°C)362mW	
8-Pin SO (derate 5.88mW/°C above +70°C)471mW	

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

Electrical Characteristics—MAX6126_21 (Vout = 2.048V)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL		CONDIT	IONS	MIN	TYP	MAX	UNITS
OUTPUT					•			
Output Voltage	V _{OUT}	T _A = +25°C				2.048		V
		Referred to	A grade	s SO	-0.02		+0.02	
Output Voltage Assurage			B grade	s SO	-0.06		+0.06	%
Output Voltage Accuracy		V _{OUT} , T _A = +25°C	A grade	μMAX	-0.06		+0.06	70
		, A	B grade	e μMAX	-0.1		+0.1	
			A grade	s SO		0.5	3	
		T _A = -40°C to +85°C	B grade	s SO		1	5	
		to +85°C	A grade	e μMAX		1	3	
Output Voltage Temperature	TCV _{OUT}		B grade	e μMAX		2	7	ppm/°C
Coefficient (Note 1)	10,001	T _A = -40°C to +125°C	A grade	s SO		1	5	
			B grade	e SO		2	10	
			A grade	e μMAX		2	5	
			B grade	e μMAX		3	12	
Line Regulation	ΔV _{OUT} /	2.7V ≤ V _{IN} ≤	T _A = +25°C			2	20	μV/V
Line Regulation	ΔV _{IN}	12.6V	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$				40	μν/ν
Load Regulation	ΔV _{OUT} /	Sourcing: 0 ≤	l _{OUT} ≤ 10	mA		0.7	25	μV/mA
Load Regulation	Δl _{OUT}	Sinking: -10m/	A ≤ I _{OUT}	≤ 0		1.3	25	μν/πΑ
OUT Short-Circuit Current	la a	Short to GND				160		mA
OUT SHOIL-CIRCUIT CUITERI	Isc	Short to IN				20		IIIA
Thermal Hysteresis (Note 2)	ΔV _{OUT} /	SO				25		nnm
Thermal Hysteresis (Note 2)	cycle	μMAX				80		ppm
Long-Term Stability	ΔV _{OUT} /	1000hr at T	+T. = 135°C SO			20		ppm/
Long-Term Stability	time	1000hr at T _A = +25°C		μMAX		100		1000hr

Electrical Characteristics—MAX6126_21 (V_{OUT} = 2.048V) (continued)

 $(V_{IN} = 5V, C_{LOAD} = 0.1 \mu F, I_{OUT} = 0, T_A = T_{MIN} \text{ to } T_{MAX}, \text{ unless otherwise noted. Typical values are at } T_A = +25 ^{\circ}C.)$

PARAMETER	SYMBOL	CONDIT	TONS	MIN	TYP	MAX	UNITS
DYNAMIC CHARACTERISTICS							
		f = 0.1Hz to 10Hz			1.3		μV _{P-P}
Noise Voltage	e _{OUT}	f = 1kHz, C _{NR} = 0			60		nV/√ Hz
		f = 1kHz, C _{NR} = 0.1µF			35		
Turn On Sottling Time	t _R	To V _{OUT} = 0.01% of final value	C _{NR} = 0		0.8		ma
Turn-On Settling Time			$C_{NR} = 0.1 \mu F$		20		ms
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillation	ns		0.1 to 10		μF
INPUT		,					
Supply Voltage Range	V _{IN}	Guaranteed by line-reg	ulation test	2.7		12.6	V
Quiescent Supply Current	I _{IN}	T _A = +25°C			380	550	
Quiescent Supply Current		T _A = -40°C to +125°C				725	μA

Electrical Characteristics—MAX6126_25 (Vout = 2.500V)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CONI	DITIONS	MIN	TYP	MAX	UNITS
ОИТРИТ				,			
Output Voltage	V _{OUT}	T _A = +25°C			2.500		V
			A grade SO	-0.02		+0.02	
Output Voltage Acquirect		Referred to V _{OUT} ,	B grade SO	-0.06		+0.06	%
Output Voltage Accuracy		T _A = +25°C	A grade µMAX	-0.06		+0.06	70
			B grade µMAX	-0.1		+0.1	
			A grade SO		0.5	3	
		T _A = -40°C to +85°C	B grade SO		1	5	ppm/°C
			A grade µMAX		1	3	
Output Voltage Temperature	TCV		B grade μMAX		2	7	
Coefficient (Note 1)	TCV _{OUT}		A grade SO		1	5	
		$T_A = -40^{\circ}C$ to	B grade SO		2	10	
		+125°C	A grade µMAX		2	5	
			B grade µMAX		3	12	
Line Deculation	ΔV _{OUT} /	27//// / 126//	T _A = +25°C		3	20	\/\/
Line Regulation	ΔVIN	$2.7V \le V_{\text{IN}} \le 12.6V$	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$			40	μV/V
Load Regulation	ΔV _{OUT} /	Sourcing: 0 ≤ I _{OUT} ≤ 10mA			1	25	u\//m^
Load Regulation	Δlout	Sinking: -10mA ≤ I _{OL}	_{JT} ≤ 0		1.8	25	μV/mA

Electrical Characteristics—MAX6126_25 (V_{OUT} = 2.500V) (continued)

 $(V_{IN} = 5V, C_{LOAD} = 0.1 \mu F, I_{OUT} = 0, T_A = T_{MIN} \text{ to } T_{MAX}, \text{ unless otherwise noted. Typical values are at } T_A = +25 ^{\circ}C.)$

PARAMETER	SYMBOL	CONDIT	IONS	MIN	TYP	MAX	UNITS
Drangut Voltage (Note 2)	V V	A)/	I _{OUT} = 5mA		0.06	0.2	V
Dropout Voltage (Note 3)	VIN - VOUT	$\Delta V_{OUT} = 0.1\%$	I _{OUT} = 10mA		0.12	0.4	\ \ \
OUT Short-Circuit Current	laa	Short to GND			160		mA
Oo'r Short-Circuit Current	I _{SC}	Short to IN			20		IIIA
Thermal Hysteresis (Note 2)	ΔV _{OUT} /	SO			35		nnm
Thermal Hysteresis (Note 2)	cycle	μMAX			80		ppm
Long-Term Stability	ΔV _{OUT} /	1000hr at T _A = +25°C	SO		20		ppm/
Long-Term Stability	time	1000111 at 1A = +25 C	μMAX		100		1000hr
DYNAMIC CHARACTERISTICS							
	e _{OUT}	f = 0.1Hz to 10Hz			1.45		μV _{P-P}
Noise Voltage		$f = 1kHz$, $C_{NR} = 0$	75			nV/√ Hz	
		$f = 1kHz, C_{NR} = 0.1\mu F$	45			IIV/ VIIZ	
Turn-On Settling Time	+ _	To V _{OUT} = 0.01% of	$C_{NR} = 0$		1		ms
Turn-On Settling Time	t _R	final value	$C_{NR} = 0.1 \mu F$		20		1115
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillation	s		0.1 to 10		μF
INPUT							
Supply Voltage Range	V _{IN}	Guaranteed by line-regu	2.7		12.6	V	
Quioscont Supply Current	I _{IN}	T _A = +25°C		380	550		
Quiescent Supply Current		$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$			725	μA	

Electrical Characteristics—MAX6126_28 (Vout = 2.800V)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CON	DITIONS	MIN	TYP	MAX	UNITS	
ОИТРИТ								
Output Voltage	V _{OUT}	T _A = +25°C			2.800		V	
Output Voltage Accuracy		Referred to V _{OUT} ,	A grade µMAX	-0.06		+0.06	- %	
		T _A = +25°C	B grade μMAX	-0.10		+0.10	70	
Output Voltage Temperature		$T_A = -40^{\circ}C$ to	A grade µMAX		1	3		
	TOV	+85°C	B grade µMAX		2	7	ppm/°C	
Coefficient (Note 1)	TCV _{OUT}	T _A = -40°C to +125°C	A grade µMAX		2	5		
			B grade µMAX		3	12		
Line Degulation	ΔV _{OUT} /	0.0)/ 1)/ 140.0)/	T _A = +25°C		3.5	23	μV/V	
Line Regulation	ΔVIN	$3.0V \le V_{\text{IN}} \le 12.6V$	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$			45		
Load Dogulation	ΔV _{OUT} /	Sourcing: 0 ≤ I _{OUT} ≤	10mA		1.3	28	\ //m A	
Load Regulation	ΔVIN	Sinking: -10mA ≤ I _{OUT} ≤ 0			2.4	28	μV/mA	
Dropout Voltage (Note 3)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A)/ = 0.19/	I _{OUT} = 5mA		0.06	0.2	V	
	VIN - VOUT	$\Delta V_{OUT} = 0.1\%$	I _{OUT} = 10mA		0.12	0.4] '	

Electrical Characteristics—MAX6126_28 (V_{OUT} = 2.800V) (continued)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CONE	OITIC	ONS	MIN	TYP	MAX	UNITS
OUT Chart Circuit Current		Short to GND				160		A
OUT Short-Circuit Current	I _{SC}	Short to IN				20		mA
Thermal Hysteresis (Note 2)	ΔV _{OUT} / cycle	μMAX 80					ppm	
Long-Term Stability	ΔV _{OUT} / time	1000hr at T _A = +25°C		μМΑΧ		100		ppm/ 1000hr
DYNAMIC CHARACTERISTICS	•							•
		f = 0.1Hz to 10Hz	= 0.1Hz to 10Hz			1.45		
Noise Voltage	e _{OUT}	$f = 1kHz$, $C_{NR} = 0$				75		nV/√Hz
		f = 1kHz, C _{NR} = 0.1µF				45		
Turn On Cattling Time		To V _{OUT} = 0.01% of	CNF	₹ = 0		1		
Turn-On Settling Time	t _R			_R = 0.1μF		20		ms
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillati	ions			0.1 to 10		μF
INPUT	•				•			
Supply Voltage Range	V _{IN}	Guaranteed by line-regulation test			3.0		12.6	V
Quincant Supply Current		T _A = +25°C				380	550	
Quiescent Supply Current	I _{IN}	T _A = -40°C to +125°C			725			μA

Electrical Characteristics—MAX6126_30 (V_{OUT} = 3.000V)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CON	DITIONS	MIN	TYP	MAX	UNITS
OUTPUT	•						
Output Voltage	V _{OUT}	T _A = +25°C			3.000		V
			A grade SO	-0.02		+0.02	
Output Voltage Accuracy		Referred to VOLIT.	B grade SO	-0.06		+0.06	%
		Referred to V _{OUT} , T _A = +25°C	A grade µMAX	-0.06		+0.06	70
			B grade μMAX	-0.1		+0.1	
		T _A = -40°C to	A grade SO		0.5	3	
			B grade SO		1	5	100
		+85°C	A grade µMAX		1	3	
Output Voltage Temperature	TOV		B grade μMAX		2	7	
Coefficient (Note 1)	TCV _{OUT}		A grade SO		1	5	ppm/°C
		$T_A = -40^{\circ}C$ to	B grade SO		2	10	1
		+125°C	A grade µMAX		2	5	1
			B grade μMAX		3	12]

Electrical Characteristics—MAX6126_30 (V_{OUT} = 3.000V) (continued)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CONI	DITIC	ONS	MIN	TYP	MAX	UNITS	
Line Degulation	ΔV _{OUT} /	3.2V ≤ V _{IN} ≤ 12.6V	T _A =	= +25°C		4	25	\/\/	
Line Regulation	ΔVIN	3.2V \(\text{V} \) \(\text{N} \(\text{S} \) \(\text{12.0V} \)	T _A =	= -40°C to +125°C			50	μV/V	
Load Degulation	ΔV _{OUT} /	Sourcing: 0 ≤ I _{OUT} ≤	10m	A		1.5	30	\//m ^	
Load Regulation	Δlout	Sinking: -10mA ≤ I _{OL}	JT ≤ ()		2.8	30	μV/mA	
Dropout Voltage (Note 3)	V V	ΔV _{OUT} = 0.1%	lou	_T = 5mA		0.06	0.2	_ v	
Diopout voltage (Note 3)	VIN - VOUT	ΔVOUT = 0.176	lou	_T = 10mA		0.11	0.4	V	
OUT Short-Circuit Current	la a	Short to GND				160		mΛ	
OUT SHOIL-CIICUIT CUITEIIT	Isc	Short to IN				20		mA	
Thermal Hysteresis (Note 2)	ΔV _{OUT} /	SO			20			nnm	
Thermal Hysteresis (Note 2)	cycle	μMAX			80		ppm		
Long Torm Stability	ΔV _{OUT} /	1000hr at T _A = +25°0	_ [SO		20		ppm/	
Long-Term Stability	time	1000111 at 1A = +25 t		μMAX		100		1000hr	
DYNAMIC CHARACTERISTICS									
		f = 0.1Hz to 10Hz			1.75			μV _{P-P}	
Noise Voltage	e _{OUT}	$f = 1kHz, C_{NR} = 0$			90			nV/√Hz	
		f = 1kHz, C _{NR} = 0.1μF				55		IIV/ VIIZ	
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillat	ions			0.1 to 10		μF	
Turn On Sottling Time		To V _{OUT} = 0.01% of	CNF	₂ = 0		1.2		me	
Turn-On Settling Time	t _R	final value		_R = 0.1µF		20		ms	
INPUT									
Supply Voltage Range	V _{IN}	Guaranteed by line-r	egula	ation test	3.2		12.6	V	
Quioscont Supply Current	1	T _A = +25°C				380	550		
Quiescent Supply Current	I _{IN}	T _A = -40°C to +125°C					725	μA	

Electrical Characteristics—MAX6126_33 (V_{OUT} = 3.300V)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CON	DITIONS	MIN	TYP	MAX	UNITS	
OUTPUT	Į.							
Output Voltage	V _{OUT}	T _A = +25°C			3.300		V	
			A grade SO	-0.02		+0.02		
O dead Walle and Assessed		Referred to V _{OUT} ,	B grade SO	-0.06		+0.06	1	
Output Voltage Accuracy		T _A = +25°C	A grade µMAX	-0.06		+0.06	%	
			B grade μMAX	-0.1		+0.1		
			A grade SO		0.5	3		
		$T_A = -40^{\circ}C$ to	B grade SO		1	5		
		+85°C	A grade µMAX		1	3		
Output Voltage Temperature	TCV		B grade µMAX		2	7		
Coefficient (Note 1)	TCV _{OUT}		A grade SO		1	5	ppm/°C	
		$T_A = -40^{\circ}C$ to	B grade SO		2	10		
		+125°C	A grade µMAX		2	5		
			B grade µMAX		3	12		
Line Degulation	ΔV _{OUT} /	2.5\/.<\/.<12.6\/.	T _A = +25°C		11	35	μV/V	
Line Regulation	ΔV_{IN}	$3.5V \le V_{\text{IN}} \le 12.6V$	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$			70	μν/ν	
Load Dogulation	ΔV _{OUT} /	Sourcing: 0 ≤ I _{OUT} ≤ 10mA			2	40	\//m ^	
Load Regulation	Δl _{OUT}	Sinking: $-10\text{mA} \le I_{\text{OUT}} \le 0$			5	40	μV/mA	
Daniel (Maller et al. (Maler et)	V _{IN} - V _{OUT}	Δ\/	I _{OUT} = 5mA		0.06	0.2	V	
Dropout Voltage (Note 3)		Δνουτ = 0.1%	I _{OUT} = 10mA		0.12	0.4	V	
OUT Short-Circuit Current	loo	Short to GND			160			
COT Short-Circuit Current	Isc	Short to IN			20		mA	
Thermal Hysteresis (Note 2)	ΔV _{OUT} /	SO			20		nnm	
Thermal Hysteresis (Note 2)	cycle	μMAX			80		ppm	
Long-Term Stability	ΔV _{OUT} /	1000hr at	SO		20		ppm/	
Long-Term Stability	time	T _A = +25°C	μMAX		100		1000hr	
DYNAMIC CHARACTERISTICS								
		f = 0.1Hz to 10Hz			1.95		μV _{P-P}	
Noise Voltage	e _{OUT}	f = 1kHz, C _{NR} = 0			100		nV/√ Hz	
		f = 1kHz, C _{NR} = 0.1 _l	JF		60		1107 (112	
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscilla	tions		0.1 to 10		μF	
Turn-On Settling Time	t _R	To V _{OUT} = 0.01%	C _{NR} = 0		1.2		ms	
Turr on octains time	чK	of final value	C _{NR} = 0.1µF		20		1113	
INPUT	_							
Supply Voltage Range	V _{IN}	Guaranteed by line-r	3.5		12.6	V		
Quiescent Supply Current	I _{IN}	T _A = +25°C			380	550		
Quioscent Supply Surrent	'IN	$T_A = -40^{\circ}C \text{ to } +125^{\circ}$	С			725	μA	

Electrical Characteristics—MAX6126_36 (Vout = 3.600V)

 $(V_{IN} = 5V, \, C_{LOAD} = 0.1 \mu F, \, I_{OUT} = 0, \, T_A = T_{MIN} \, to \, T_{MAX}, \, unless \, otherwise \, noted. \, Typical \, values \, are \, at \, T_A = +25 ^{\circ}C.)$

PARAMETER	SYMBOL	CONE	DITIONS	MIN	TYP	MAX	UNITS
OUTPUT	1			1			1
Output Voltage	V _{OUT}	T _A = +25°C			3.6		V
-			A grade SO	-0.02		+0.02	
Out and Mallana Annual		Referred to V _{OUT} ,	B grade SO	-0.06		+0.06	0,
Output Voltage Accuracy		T _A = +25°C	A grade µMAX	-0.06		+0.06	- %
			B grade μMAX	-0.1		+0.1]
			A grade SO		0.5	3	
		T - 40°C to 105°C	B grade SO		1	5	
		$T_A = -40^{\circ}C \text{ to } +85^{\circ}C$	A grade µMAX		1	3	1
Output Voltage Temperature	TCV		B grade µMAX		2	7	nnm/°C
Coefficient (Note 1)	TCV _{OUT}		A grade SO		1	5	ppm/°C
		$T_A = -40^{\circ}C$ to	B grade SO		2	10	
		+125°C	A grade µMAX		2	5	1
			B grade μMAX		3	12	1
Line Bereitetter	ΔV _{OUT} /	0.00/ 43/ 440.00/	T _A = +25°C		12	40	
Line Regulation	ΔV _{IN}	$3.8V \le V_{\text{IN}} \le 12.6V$	T _A = -40°C to +125°C			80	μV/V
	ΔV _{OUT} /	Sourcing: 0 ≤ I _{OUT} ≤	Sourcing: 0 ≤ I _{OUT} ≤ 10mA			50	
Load Regulation	ΔI _{OUT}	Sinking: -10mA ≤ I _{OU}		6	50	μV/mA	
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	A)/ - 0.40/	I _{OUT} = 5mA		0.05	0.2	.,
Dropout Voltage (Note 3)	VIN - VOUT	$\Delta V_{OUT} = 0.1\%$	I _{OUT} = 10mA		0.11	0.4	V
OLIT Chart Circuit Current		Short to GND			160		A
OUT Short-Circuit Current	Isc	Short to IN			20		mA mA
The second Library and in (Night 2)	ΔV _{OUT} /	SO	20			1	
Thermal Hysteresis (Note 2)	cycle	μMAX			80		ppm
Long Torra Ctability	ΔV _{OUT} /	1000hr at T = 125°C	SO		20		ppm/
Long-Term Stability	time	1000hr at T _A = +25°C	μMAX		100		1000hr
DYNAMIC CHARACTERISTICS							•
		f = 0.1Hz to 10Hz			2.1		μV _{P-P}
Noise Voltage	e _{OUT}	f = 1kHz, C _{NR} = 0			110		m\//s/\
		f = 1kHz, C _{NR} = 0.1µ	F		66		nV/√Hz
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillati	ions		0.1 to 10		μF
Turn On Sottling Time		To V _{OUT} = 0.01% of	C _{NR} = 0		1.6		
Turn-On Settling Time	t _R	final value	C _{NR} = 0.1µF		20		ms
INPUT							
Supply Voltage Range	V _{IN}	Guaranteed by line-re	egulation test	3.8		12.6	V
Quiggeont Supply Current	Luci	T _A = +25°C			380	550	μА
Quiescent Supply Current	I _{IN}	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$				725	

Electrical Characteristics—MAX6126_41 (V_{OUT} = 4.096V)

 $(V_{IN}$ = 5V, C_{LOAD} = 0.1 μ F, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25 $^{\circ}$ C.)

PARAMETER	SYMBOL	CONDITIONS		MIN	TYP	MAX	UNITS
OUTPUT	'						
Output Voltage	V _{OUT}	T _A = +25°C			4.096		V
Output Voltage Accuracy			A grade SO	-0.02		+0.02	- - %
		Referred to V _{OUT} ,	B grade SO	-0.06		+0.06	
		T _A = +25°C	A grade µMAX	-0.06		+0.06	
			B grade μMAX	-0.1		+0.1	
			A grade SO		0.5	3	
		T _A = -40°C to +85°C	B grade SO		1	5	1
		+85°C	A grade µMAX		1	3	
Output Voltage Temperature	TOV		B grade μMAX		2	7	
Coefficient (Note 1)	TCV _{OUT}		A grade SO		1	5	ppm/°C
		T _A = -40°C to +125°C	B grade SO		2	10	
		+125°C	A grade µMAX		2	5	
			B grade μMAX		3	12	1
Line Regulation	ΔV _{OUT} /	4.3V ≤ V _{IN} ≤ 12.6V	T _A = +25°C		4.5	30	μV/V
	ΔVIN	4.5V = VIN = 12.0V	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$			60	
Load Degulation	ΔV _{OUT} /	Sourcing: 0 ≤ I _{OUT} ≤ 10mA			2	40	μV/mA
Load Regulation	Δlout	Sinking: -10mA ≤ I _{OUT} ≤ 0			5	40	
Dropout Voltage (Note 3)	V _{IN} - V _{OUT}	ΔV _{OUT} = 0.1%	I _{OUT} = 5mA		0.05	0.2	V
Dropout Voltage (Note 3)		Δνου - 0.176	I _{OUT} = 10mA		0.1	0.4	
OUT Short-Circuit Current	la a	Short to GND			160		mA
OUT SHORT-CIRCUIT CUITER	Isc	Short to IN			20		IIIA
Thermal Hysteresis (Note 2)	ΔV _{OUT} /	SO			20		ppm
Thermal Hysteresis (Note 2)	cycle	μМΑΧ			80		ррііі
Long-Term Stability	ΔV _{OUT} / time	1000hr at T _A = +25°C	SO		20		ppm/
Long-Term Stability		1000111 at 1 _A = 125 C	μMAX		100		1000hr
DYNAMIC CHARACTERISTICS					,		
		f = 0.1Hz to 10Hz			2.4		μV _{P-P}
Noise Voltage	e _{OUT}	$f = 1kHz$, $C_{NR} = 0$		120 80			nV/√ Hz
		f = 1kHz, C _{NR} = 0.1μF				110/ 1112	
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillations			0.1 to 10		μF
Turn-On Settling Time	t _R	To V _{OUT} = 0.01% of	C _{NR} = 0		1.6		ms
Turn on octaining rime	'К	final value	C _{NR} = 0.1µF		20		1113
INPUT		1					1
Supply Voltage Range	V _{IN}	Guaranteed by line-regulation test		4.3		12.6	V
Quiescent Supply Current	I _{IN}	T _A = +25°C			380	550	μA
		$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$				725	μ/\

Electrical Characteristics—MAX6126_50 (V_{OUT} = 5.000V)

 $(V_{IN}$ = 5.5V, C_{LOAD} = 0.1µF, I_{OUT} = 0, T_A = T_{MIN} to T_{MAX} , unless otherwise noted. Typical values are at T_A = +25°C.)

PARAMETER	SYMBOL	CONE	MIN	TYP	MAX	UNITS		
OUTPUT	•							
Output Voltage	V _{OUT}	T _A = +25°C			5.000		V	
			A grade SO	-0.02		+0.02	- %	
Outrot Valtage Agents			B grade SO	-0.06		+0.06		
Output Voltage Accuracy		T _A = +25°C	A grade µMAX	-0.06		+0.06		
			B grade μMAX	-0.1		+0.1		
			A grade SO		0.5	3		
		$T_A = -40^{\circ}C \text{ to } +85^{\circ}C$	B grade SO		1	5		
		1A40 C to +65 C	A grade μMAX		1	3		
Output Voltage Temperature	TCV		B grade μMAX		2	7	ppm/°C	
Coefficient (Note 1)	TCV _{OUT}		A grade SO		1	5	ppiii/ C	
		T _A = -40°C to +125°C	B grade SO		2	10	-	
		+125°C	A grade μMAX		2	5		
			B grade μMAX		3	12		
Line Regulation	ΔV _{OUT} / ΔV _{IN}	5.2V ≤ V _{IN} ≤ 12.6V	T _A = +25°C		3	40	μV/V	
Line Regulation		5.2V = V N = 12.0V	$T_A = -40^{\circ}C \text{ to } +125^{\circ}C$			80		
Load Regulation	ΔV _{OUT} / ΔΙ _{ΟUT}	Sourcing: 0 ≤ I _{OUT} ≤ 10mA			2.5	50	μV/mA	
Load Regulation		Sinking: $-10\text{mA} \le I_{\text{OUT}} \le 0$			6.5	50		
Dropout Voltage (Note 3)	V _{IN} - V _{OUT}	A\/= 0.19/	I _{OUT} = 5mA		0.05	0.2	V	
Diopout Voltage (Note 3)		Δνου - 0.176	I _{OUT} = 10mA		0.1	0.4		
OUT Short-Circuit Current	I _{SC}	Short to GND			160		mA	
OUT SHORT-CIRCUIT GUITERI		Short to IN			20		IIIA	
Thermal Hysteresis (Note 2)	ΔV _{OUT} / cycle	SO			15		ppm	
Thermal Hysteresis (Note 2)		μMAX			80		ррііі	
Long-Term Stability	ΔV _{OUT} / time	1000hr at T _A = +25°C	so		20		ppm/	
Long Term Glability		μMAX			100		1000hr	
DYNAMIC CHARACTERISTICS					,			
	e _{OUT}	f = 0.1Hz to 10Hz			2.85		μV _{P-P}	
Noise Voltage		$f = 1kHz, C_{NR} = 0$			145		nV/√ Hz	
		f = 1kHz, C _{NR} = 0.1μF			95		1107 1112	
Capacitive-Load Stability Range	C _{LOAD}	No sustained oscillati		0.1 to 10		μF		

Electrical Characteristics—MAX6126_50 (V_{OUT} = 5.000V) (continued)

 $(V_{IN} = 5.5V, C_{LOAD} = 0.1\mu F, I_{OUT} = 0, T_A = T_{MIN} \text{ to } T_{MAX}, \text{ unless otherwise noted. Typical values are at } T_A = +25^{\circ}C.)$

PARAMETER	SYMBOL	CONDITIONS		MIN	TYP	MAX	UNITS
Turn On Sottling Time		To V _{OUT} = 0.01% of final value	C _{NR} = 0		2		ma
Turn-On Settling Time	t _R		$C_{NR} = 0.1 \mu F$		20		ms
INPUT							
Supply Voltage Range	V _{IN}	Guaranteed by line-regulation test		5.2		12.6	V
Outcoment Summly Comment		T _A = +25°C			380	550	
Quiescent Supply Current	IN	T _A = -40°C to +125°C				725	μA

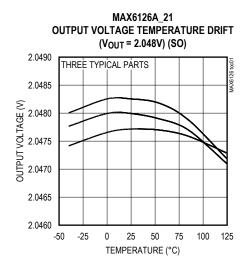
Note 1: Temperature coefficient is measured by the "box" method, i.e., the maximum ΔV_{OUT} / V_{OUT} is divided by the maximum ΔT .

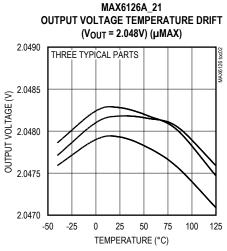
Note 2: Thermal hysteresis is defined as the change in +25°C output voltage before and after cycling the device from T_{MAX} to T_{MIN}.

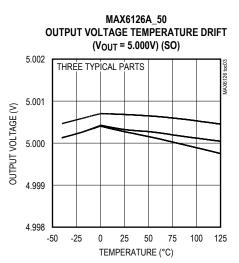
Note 3: Dropout voltage is defined as the minimum differential voltage $(V_{IN} - V_{OUT})$ at which V_{OUT} decreases by 0.1% from its original value at $V_{IN} = 5.0 \text{V}$ ($V_{IN} = 5.5 \text{V}$ for $V_{OUT} = 5.0 \text{V}$).

Typical Operating Characteristics

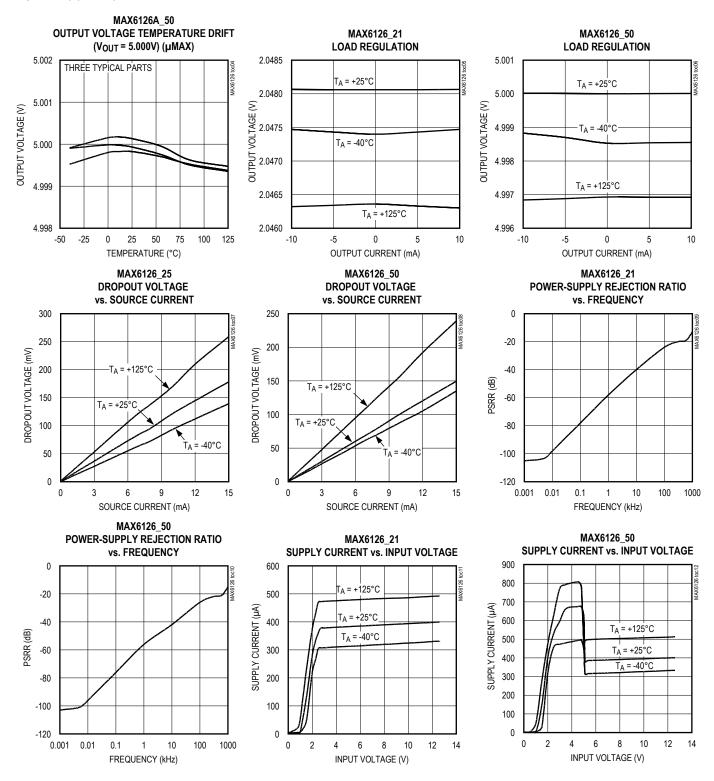
 $(V_{IN} = 5V \text{ for MAX6126}_21/25/30/33/36/41, V_{IN} = 5.5V \text{ for MAX6126}_50, C_{LOAD} = 0.1 \mu\text{F}, I_{OUT} = 0, T_{A} = +25 ^{\circ}\text{C}, unless otherwise specified.})$ (Note 5)



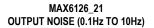


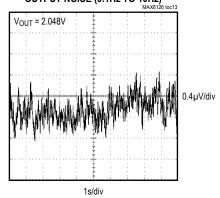


 $(V_{IN} = 5V \text{ for MAX6126}_21/25/30/33/36/41, V_{IN} = 5.5V \text{ for MAX6126}_50, C_{LOAD} = 0.1 \mu\text{F}, I_{OUT} = 0, T_A = +25 ^{\circ}\text{C}, unless otherwise specified.})$ (Note 5)

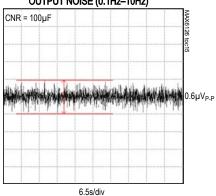


 $(V_{IN} = 5V \text{ for MAX6126}_21/25/30/33/36/41, V_{IN} = 5.5V \text{ for MAX6126}_50, C_{LOAD} = 0.1 \mu F, I_{OUT} = 0, T_A = +25 ^{\circ}C, unless otherwise specified.) (Note 5)$

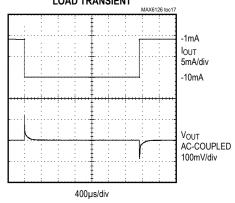




MAX6126_25 OUTPUT NOISE (0.1Hz-10Hz)



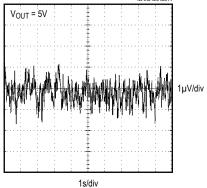
MAX6126_21 LOAD TRANSIENT



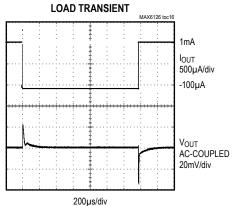
$$\begin{split} &C_{LOAD} = 0.1 \mu F & I_{OUT} = -1 mA \text{ TO } -10 mA \\ &V_{IN} = 5 V & V_{OUT} = 2.048 V \end{split}$$

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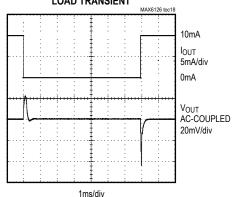
MAX6126_50 OUTPUT NOISE (0.1Hz TO 10Hz)



MAX6126_21

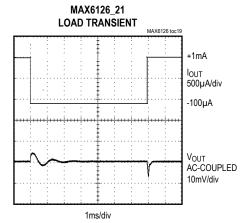


MAX6126_21 LOAD TRANSIENT



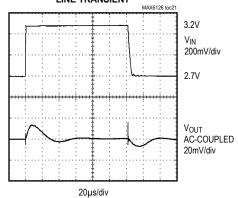
 $C_{LOAD} = 10 \mu F$ $I_{OUT} = 0 \text{ TO } 10 \text{mA}$ $V_{IN} = 5 V$ $V_{OUT} = 2.048 V$

 $(V_{IN} = 5V \text{ for MAX6126_21/25/30/33/36/41}, V_{IN} = 5.5V \text{ for MAX6126_50}, C_{LOAD} = 0.1 \mu F, I_{OUT} = 0, T_A = +25 ^{\circ}C, unless otherwise T_{IN} = 5.5 ^{\circ}C$ specified.) (Note 5)



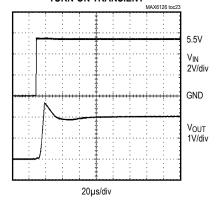
 $C_{LOAD} = 10 \mu F$ I_{OUT} = -100μA TO 1mA V_{OUT} = 2.048V $V_{IN} = 5V$

MAX6126_21 LINE TRANSIENT



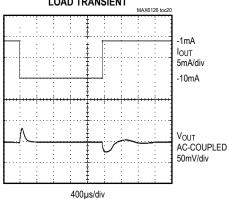
 V_{OUT} = 2.048V C_{LOAD} = 0.1 μ F

MAX6126 21 **TURN-ON TRANSIENT**



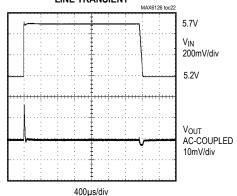
 C_{LOAD} = 0.1 μ F V_{OUT} = 2.048V

MAX6126_21 LOAD TRANSIENT



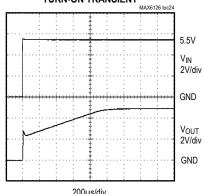
 I_{OUT} = -1mA TO -10mA V_{OUT} = 2.048V C_{LOAD} = $10\mu F$ $V_{IN} = 5V$

MAX6126_50 LINE TRANSIENT



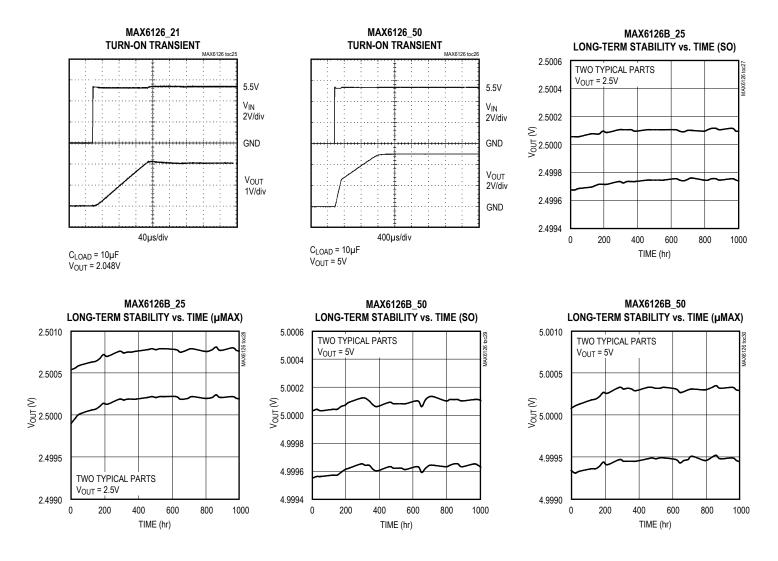
 $C_{LOAD} = 0.1 \mu F$ $V_{IN} = 5.2V TO 5.7V$ $V_{OUT} = 5V$

MAX6126 50 **TURN-ON TRANSIENT**



 C_{LOAD} = 0.1 μ F V_{OUT} = 5V

 $(V_{IN} = 5V \text{ for MAX6126}_21/25/30/33/36/41, V_{IN} = 5.5V \text{ for MAX6126}_50, C_{LOAD} = 0.1 \mu\text{F}, I_{OUT} = 0, T_A = +25 ^{\circ}\text{C}, unless otherwise specified.})$ (Note 5)



Note 5: Many of the MAX6126 *Typical Operating Characteristics* are extremely similar. The extremes of these characteristics are found in the MAX6126_21 (2.048V output) and the MAX6126_50 (5.000V output). The *Typical Operating Characteristics* of the remainder of the MAX6126 family typically lie between those two extremes and can be estimated based on their output voltages.

Pin Description

PIN	NAME	FUNCTION
1	NR	Noise Reduction. Connect a 0.1µF capacitor to improve wideband noise. Leave unconnected if not used (see Figure 1).
2	IN	Positive Power-Supply Input
3	GND	Ground
4	GNDS	Ground-Sense Connection. Connect to ground connection at load.
5, 8	I.C.	Internally Connected. Do not connect anything to these pins.
6	OUTS	Voltage Reference Sense Output
7	OUTF	Voltage Reference Force Output. Short OUTF to OUTS as close to the load as possible. Bypass OUTF with a capacitor (0.1µF to 10µF) to GND.

Detailed Description

Wideband Noise Reduction

To improve wideband noise and transient power-supply noise, add a $0.1\mu F$ capacitor to NR (Figure 1). A $0.1\mu F$ NR capacitor reduces the noise from $60nV/\sqrt{Hz}$ to $35nV/\sqrt{Hz}$ for the 2.048V output. Noise in the power-supply input can affect output noise, but can be reduced by adding an optional bypass capacitor between IN and GND, as shown in the Typical Operating Circuit. The 0.1Hz to 10Hz noise when measured with a $0.1\mu F$ noise reduction capacitor (NR pin) is $0.9\mu V_{P-P}$. Using a $100\mu F$ noise reduction capacitor (NR pin) reduces the 0.1Hz to 10Hz noise to $0.6\mu V_{P-P}$.

Output Bypassing

The MAX6126 requires an output capacitor between $0.1\mu F$ and $10\mu F$. Locate the output capacitor as close to OUTF as possible. For applications driving switching capacitive loads or rapidly changing load currents, it is advantageous to use a $10\mu F$ capacitor in parallel with a $0.1\mu F$ capacitor. Larger capacitor values reduce transients on the reference output.

Supply Current

The quiescent supply current of the series-mode MAX6126 family is typically 380 μ A and is virtually independent of the supply voltage, with only a 2μ A/V (max) variation with supply voltage.

When the supply voltage is below the minimum specified input voltage during turn-on, the device can draw up to 300µA beyond the nominal supply current. The input voltage source must be capable of providing this current to ensure reliable turn-on.

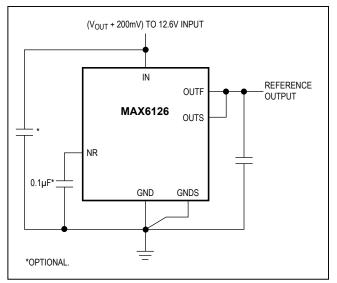


Figure 1. Noise-Reduction Capacitor

Thermal Hysteresis

Thermal hysteresis is the change of output voltage at $T_A = +25^{\circ}\text{C}$ before and after the device is cycled over its entire operating temperature range. The typical thermal hysteresis value is 20ppm (SO package).

Turn-On Time

These devices typically turn on and settle to within 0.1% of their final value in 200 μ s to 2ms depending on the device. The turn-on time can increase up to 4ms with the device operating at the minimum dropout voltage and the maximum load. A noise reduction capacitor of 0.1 μ F increases the turn-on time to 20ms.

Output Force and Sense

The MAX6126 provides independent connections for the power-circuit output (OUTF) supplying current into a load, and for the circuit input regulating the voltage applied to that load (OUTS). This configuration allows for the cancellation of the voltage drop on the lines connecting the MAX6126 and the load. When using the Kelvin connection made possible by the independent current and voltage connections, take the power connection to the load from OUTF, and bring a line from OUTS to join the line from OUTF, at the point where the voltage accuracy is needed. The MAX6126 has the same type of Kelvin connection to cancel drops in the ground return line. Connect the load to ground and bring a connection from GNDS to exactly the same point.

Applications Information

Precision Current Source

<u>Figure 2</u> shows a typical circuit providing a precision current source. The OUTF output provides the bias current for the bipolar transistor. OUTS and GNDS sense the voltage across the resistor and adjust the current sourced by OUTF accordingly. For even higher precision, use a MOSFET to eliminate base current errors.

The voltage range of OUTF is set by the reference output voltage (OUTS) and the $V_{BE}(BJT)$ or $V_{GS}(MOS)$ of the output external device:

where:

V_{OUTF} is voltage on OUTF pin

V_{BF} is base-emitter drop across BJT

V_{REF} is the actual voltage reference output this part is supposed to provide.

It translates to supply voltage requirement for voltage reference:

 $V_{IN} \ge V_{DROP}$ (dropout voltage) + V_{BEmax} + V_{REF} where:

V_{DROP} is dropout voltage of voltage reference

High-Resolution DAC and Reference from a Single Supply

<u>Figure 3</u> shows a typical circuit providing the reference for a high-resolution, 16-bit MAX541 D/A converter.

Temperature Coefficient vs. Operating Temperature Range for a 1 LSB Maximum Error

In a data converter application, the reference voltage of the converter must stay within a certain limit to keep the error in the data converter smaller than the resolution limit through the operating temperature range. Figure 4 shows the maximum allowable reference voltage temperature coefficient to keep the conversion error to less than 1 LSB, as a function of the operating temperature range (T_{MAX} - T_{MIN}) with the converter resolution as a parameter. The graph assumes the reference voltage temperature coefficient as the only parameter affecting accuracy.

In reality, the absolute static accuracy of a data converter is dependent on the combination of many parameters such as integral nonlinearity, differential nonlinearity, offset error, gain error, as well as voltage reference changes.

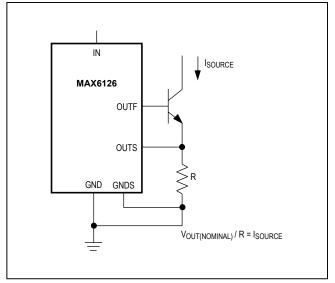


Figure 2. Precision Current Source

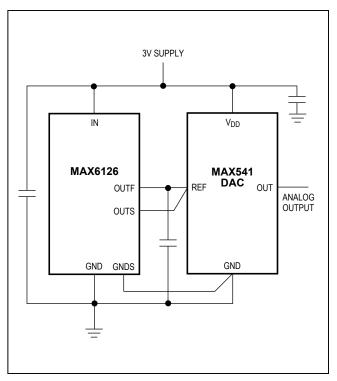


Figure 3. 14-Bit High-Resolution DAC and Positive Reference From a Single 3V Supply

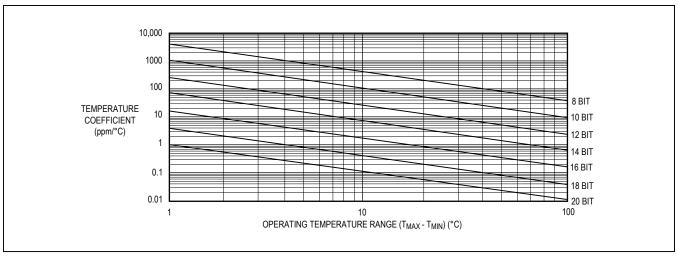
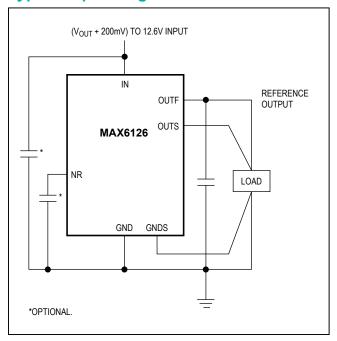


Figure 4. Temperature Coefficient vs. Operating Temperature Range for a 1 LSB Maximum Error

Typical Operating Circuit



Chip Information

PROCESS: BiCMOS

Ordering Information (continued)

MAX6126B21+ -40°C to +125°C 8 μMAX 2.048 0.1 7 MAX6126AASA25+ -40°C to +125°C 8 SO 2.500 0.02 3 MAX6126BASA25+ -40°C to +125°C 8 SO 2.500 0.06 5 MAX6126B25+ -40°C to +125°C 8 μMAX 2.500 0.06 3 MAX6126B25+ -40°C to +125°C 8 μMAX 2.500 0.1 7 MAX6126B28+ -40°C to +125°C 8 μMAX 2.500 0.1 7 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.02 3 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5	PART	TEMP RANGE	PIN- PACKAGE	OUTPUT VOLTAGE (V)	MAXIMUM INITIAL ACCURACY (%)	MAXIMUM TEMPCO (-40°C to +85°C) (ppm/°C)
MAX6126BASA25+ -40°C to +125°C 8 SO 2.500 0.06 5 MAX6126A25+ -40°C to +125°C 8 μMAX 2.500 0.06 3 MAX6126B25+ -40°C to +125°C 8 μMAX 2.500 0.1 7 MAX6126A28+ -40°C to +125°C 8 μMAX 2.800 0.06 3 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.06 3 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126A28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126A30+ -40°C to +125°C 8 μMAX 3.000 0.02 3 MAX6126B3A30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126BASA30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.1 7 MAX6126A33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.000 0.06 5 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.06 5 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.300 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 3.600 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 8O 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.01 7 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.01 7 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.01 7 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.01 7 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.01 7 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.01 7 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.06 5	MAX6126B21+	-40°C to +125°C	8 µMAX	2.048	0.1	7
MAX6126A25+ -40°C to +125°C 8 μMAX 2.500 0.06 3 MAX6126B25+ -40°C to +125°C 8 μMAX 2.500 0.1 7 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.06 3 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126AASA30+ -40°C to +125°C 8 SO 3.000 0.02 3 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.01 7 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126BASA3+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126BASA3+ -40°C to +125°C 8 μMAX 3.300 0.01 7	MAX6126AASA25+	-40°C to +125°C	8 SO	2.500	0.02	3
MAX6126B25+ -40°C to +125°C 8 μMAX 2.500 0.1 7 MAX6126A28+ -40°C to +125°C 8 μMAX 2.800 0.06 3 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126AASA30+ -40°C to +125°C 8 SO 3.000 0.02 3 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126BAS0+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126BAS0+ -40°C to +125°C 8 μMAX 3.000 0.1 7 MAX6126BAS0+ -40°C to +125°C 8 μMAX 3.000 0.1 7 MAX6126BAS30+ -40°C to +125°C 8 LMAX 3.000 0.01 7 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126A33+ -40°C to +125°C 8 μMAX 3.300 0.06 5 MAX6126A33+ -40°C to +125°C 8 SO 3.600 0.02 3	MAX6126BASA25+	-40°C to +125°C	8 SO	2.500	0.06	5
MAX6126A28+ -40°C to +125°C 8 μMAX 2.800 0.06 3 MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126AASA30+ -40°C to +125°C 8 SO 3.000 0.02 3 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126A30+ -40°C to +125°C 8 µMAX 3.000 0.06 3 MAX6126BAS0+ -40°C to +125°C 8 µMAX 3.000 0.1 7 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126BAS33+ -40°C to +125°C 8 µMAX 3.300 0.06 5 MAX6126BAS34+ -40°C to +125°C 8 µMAX 3.300 0.06 3 MAX6126BASA36+ -40°C to +125°C 8 µMAX 3.300 0.1 7 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 <	MAX6126A25+	-40°C to +125°C	8 µMAX	2.500	0.06	3
MAX6126B28+ -40°C to +125°C 8 μMAX 2.800 0.1 7 MAX6126AASA30+ -40°C to +125°C 8 SO 3.000 0.02 3 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126A30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.1 7 MAX6126AASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 SO 3.600 0.01 7 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 µMAX 3.600 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 µMAX 3.600 0.06 3	MAX6126B25+	-40°C to +125°C	8 µMAX	2.500	0.1	7
MAX6126AASA30+ -40°C to +125°C 8 SO 3.000 0.02 3 MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126BASA30+ -40°C to +125°C 8 µMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 µMAX 3.000 0.1 7 MAX6126AASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 µMAX 3.300 0.06 5 MAX6126B33+ -40°C to +125°C 8 µMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 µMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 µMAX 3.300 0.1 7 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 µMAX 3.600 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 µMAX 3.600 0.01 7 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.02	MAX6126A28+	-40°C to +125°C	8 µMAX	2.800	0.06	3
MAX6126BASA30+ -40°C to +125°C 8 SO 3.000 0.06 5 MAX6126BASA30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.11 7 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126BASA33+ -40°C to +125°C 8 μMAX 3.300 0.06 5 MAX6126BASA33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.300 0.10 7 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 3.600 0.11 7 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5	MAX6126B28+	-40°C to +125°C	8 µMAX	2.800	0.1	7
MAX6126A30+ -40°C to +125°C 8 μMAX 3.000 0.06 3 MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.1 7 MAX6126AASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.1 7 MAX6126AASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 μMAX 4.096 0.06	MAX6126AASA30+	-40°C to +125°C	8 SO	3.000	0.02	3
MAX6126B30+ -40°C to +125°C 8 μMAX 3.000 0.1 7 MAX6126AASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126BASA33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.1 7 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126BASA41+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 D 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 D 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5	MAX6126BASA30+	-40°C to +125°C	8 SO	3.000	0.06	5
MAX6126AASA33+ -40°C to +125°C 8 SO 3.300 0.02 3 MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126A33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.1 7 MAX6126AASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 BMAX 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5	MAX6126A30+	-40°C to +125°C	8 µMAX	3.000	0.06	3
MAX6126BASA33+ -40°C to +125°C 8 SO 3.300 0.06 5 MAX6126A33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.1 7 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 μMAX 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5	MAX6126B30+	-40°C to +125°C	8 µMAX	3.000	0.1	7
MAX6126A33+ -40°C to +125°C 8 μMAX 3.300 0.06 3 MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.1 7 MAX6126AASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 5 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/ν+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5	MAX6126AASA33+	-40°C to +125°C	8 SO	3.300	0.02	3
MAX6126B33+ -40°C to +125°C 8 μMAX 3.300 0.1 7 MAX6126AASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126BASA36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5	MAX6126BASA33+	-40°C to +125°C	8 SO	3.300	0.06	5
MAX6126AASA36+ -40°C to +125°C 8 SO 3.600 0.02 3 MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126A36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.0 3 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 µMAX 5.000 0.06 3	MAX6126A33+	-40°C to +125°C	8 µMAX	3.300	0.06	3
MAX6126BASA36+ -40°C to +125°C 8 SO 3.600 0.06 5 MAX6126A36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 3	MAX6126B33+	-40°C to +125°C	8 µMAX	3.300	0.1	7
MAX6126A36+ -40°C to +125°C 8 μMAX 3.600 0.06 3 MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 3 MAX6126BASA41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 3	MAX6126AASA36+	-40°C to +125°C	8 SO	3.600	0.02	3
MAX6126B36+ -40°C to +125°C 8 μMAX 3.600 0.1 7 MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 3	MAX6126BASA36+	-40°C to +125°C	8 SO	3.600	0.06	5
MAX6126AASA41+ -40°C to +125°C 8 SO 4.096 0.02 3 MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 BO 4.096 0.06 5 MAX6126A41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126BASA50+ -40°C to +125°C 8 BO 5.000 0.06 3	MAX6126A36+	-40°C to +125°C	8 µMAX	3.600	0.06	3
MAX6126BASA41+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126A41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126ASO+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126B36+	-40°C to +125°C	8 µMAX	3.600	0.1	7
MAX6126BASA41/V+ -40°C to +125°C 8 SO 4.096 0.06 5 MAX6126A41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126AASA41+	-40°C to +125°C	8 SO	4.096	0.02	3
MAX6126A41+ -40°C to +125°C 8 μMAX 4.096 0.06 3 MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126BASA41+	-40°C to +125°C	8 SO	4.096	0.06	5
MAX6126B41+ -40°C to +125°C 8 μMAX 4.096 0.1 7 MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126BASA41/V+	-40°C to +125°C	8 SO	4.096	0.06	5
MAX6126AASA50+ -40°C to +125°C 8 SO 5.000 0.02 3 MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126A41+	-40°C to +125°C	8 µMAX	4.096	0.06	3
MAX6126BASA50+ -40°C to +125°C 8 SO 5.000 0.06 5 MAX6126A50+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126B41+	-40°C to +125°C	8 µMAX	4.096	0.1	7
MAX6126A50+ -40°C to +125°C 8 μMAX 5.000 0.06 3	MAX6126AASA50+	-40°C to +125°C	8 SO	5.000	0.02	3
	MAX6126BASA50+	-40°C to +125°C	8 SO	5.000	0.06	5
MAX6126B50+ -40°C to +125°C 8 μMAX 5.000 0.1 7	MAX6126A50+	-40°C to +125°C	8 µMAX	5.000	0.06	3
· · · · · · · · · · · · · · · · · · ·	MAX6126B50+	-40°C to +125°C	8 µMAX	5.000	0.1	7

⁺Denotes a lead(Pb)-free/RoHS-compliant package.

Package Information

For the latest package outline information and land patterns (footprints), go to www.maximintegrated.com/packages. Note that a "+", "#", or "-" in the package code indicates RoHS status only. Package drawings may show a different suffix character, but the drawing pertains to the package regardless of RoHS status.

PACKAGE TYPE	PACKAGE CODE	OUTLINE NO.	LAND PATTERN NO.
8 μMAX	U8+1	<u>21-0036</u>	90-0092
8 SO	S8+4	21-0041	90-0096

N denotes an automotive qualified part.

MAX6126

Ultra-High-Precision, Ultra-Low-Noise, Series Voltage Reference

Revision History

REVISION NUMBER	REVISION DATE	DESCRIPTION	PAGES CHANGED
0	10/02	Initial release	_
1	3/03	Remove "future product" and "contact factory" notes	1, 16
2	6/03	Add "A" grade devices	1, 16
3	12/03	Change µMAX part number	1, 16
4	7/04	Add top mark to Ordering Information	1, 16
5	12/10	Add 2.8V option, add lead-free options, update Package Information	1, 2, 4, 15, 16
6	8/12	Added automotive package, MAX6126BASA41/V+ to data sheet	17
7	4/16	Updated Typical Operating Characteristics section (added TOC15)	14, 15
8	6/16	Added Electrical Characteristics tables, text references, and Ordering Information references for 3.3V and 3.6V output options.	1, 6, 9–13, 17

For pricing, delivery, and ordering information, please contact Maxim Direct at 1-888-629-4642, or visit Maxim Integrated's website at www.maximintegrated.com.

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