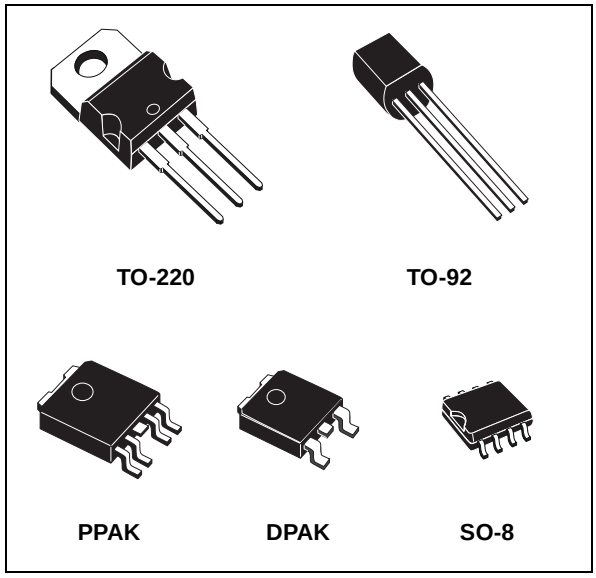
L4931 SERIES

VERY LOW DROP VOLTAGE REGULATORS WITH INHIBIT

- VERY LOW DROPOUT VOLTAGE (0.4V)
- VERY LOW QUIESCENT CURRENT (TYP. 50 µA IN OFF MODE, 600µA IN ON MODE)
- OUTPUT CURRENT UP TO 250 mA
- LOGIC-CONTROLLED ELECTRONIC SHUTDOWN
- OUTPUT VOLTAGES OF 1.25; 1.5; 2.5; 2.7; 3; 3.3; 3.5; 4; 4.5; 4.7; 5; 5.2; 5.5; 6; 8; 12V
- INTERNAL CURRENT AND THERMAL LIMIT
- ONLY 2.2µF FOR STABILITY
- AVAILABLE IN ± 1% (AB) OR 2% (C) SELECTION AT 25°C
- SUPPLY VOLTAGE REJECTION: 70db TYP. FOR 5V VERSION
- TEMPERATURE RANGE: -40 TO 125°C



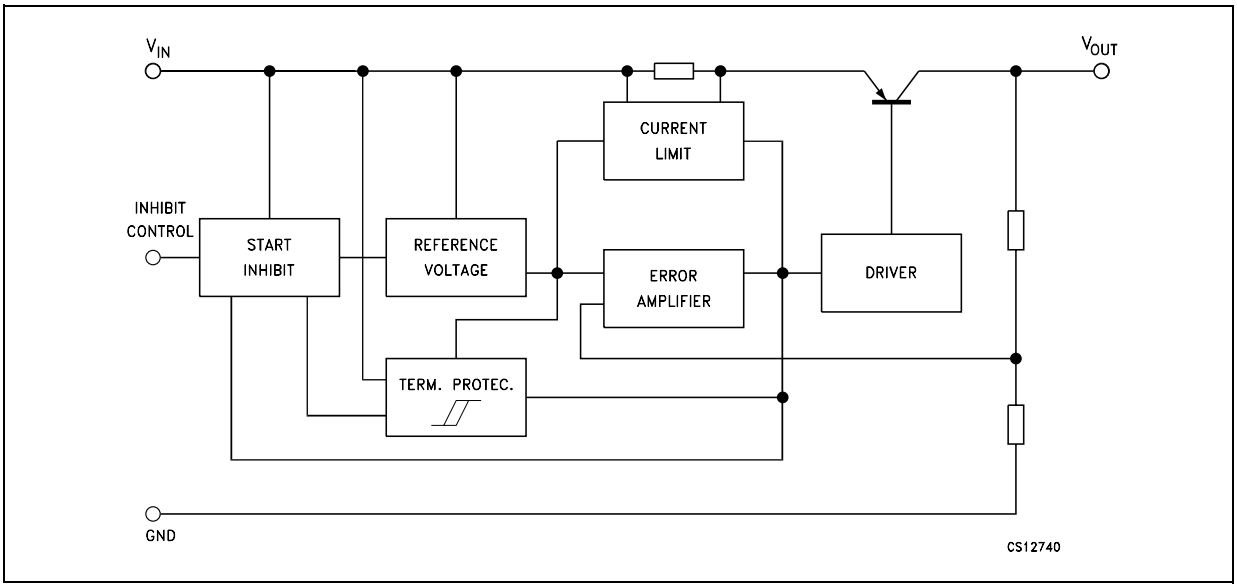
DESCRIPTION

The L4931 series are very Low Drop regulators available in TO-220, SO-8, DPAK, PPAK and TO-92 packages and in a wide range of output voltages.

The very Low Drop voltage (0.4V) and the very low quiescent current make them particularly suitable for Low Noise, Low Power applications and specially in battery powered systems.

In PPAK and SO-8 packages a Shutdown Logic Control function is available TTL compatible. This means that when the device is used as a local regulator, it is possible to put a part of the board in standby, decreasing the total power consumption. It requires only a 2.2 µF capacitor for stability allowing space and cost saving.

SCHEMATIC DIAGRAM



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter[2]	Value	Unit
V_I	DC Input Voltage	20	V
I_O	Output Current	Internally Limited	
P_{tot}	Power Dissipation	Internally Limited	
T_{stg}	Storage Temperature Range	-40 to 150	°C
T_{op}	Operating Junction Temperature Range	-40 to 125	°C

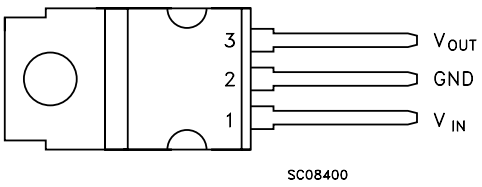
Absolute Maximum Ratings are those values beyond which damage to the device may occur. Functional operation under these condition is not implied.

THERMAL DATA

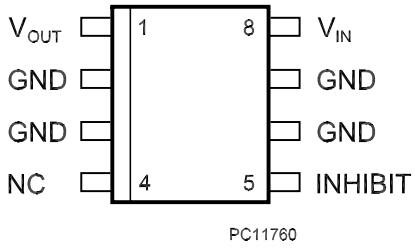
Symbol	Parameter	TO-220	SO-8	DPAK	PPAK	TO-92	Unit
$R_{thj\text{-}case}$	Thermal Resistance Junction-case	3	20	8	8		°C/W
$R_{thj\text{-}amb}$	Thermal Resistance Junction-ambient	50	55(*)	100	100	200	°C/W

(*) Considering 6 cm^2 of copper board heat-sink

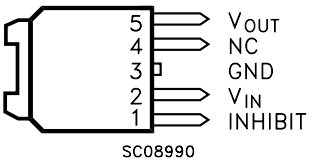
CONNECTION DIAGRAM (top view)



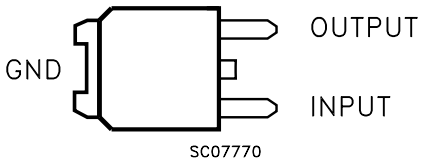
TO-220



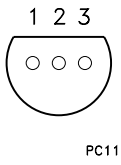
SO-8



PPAK



DPAK



PIN 1 = V_{OUT}
PIN 2 = GND
PIN 3 = V_{IN}

TO-92

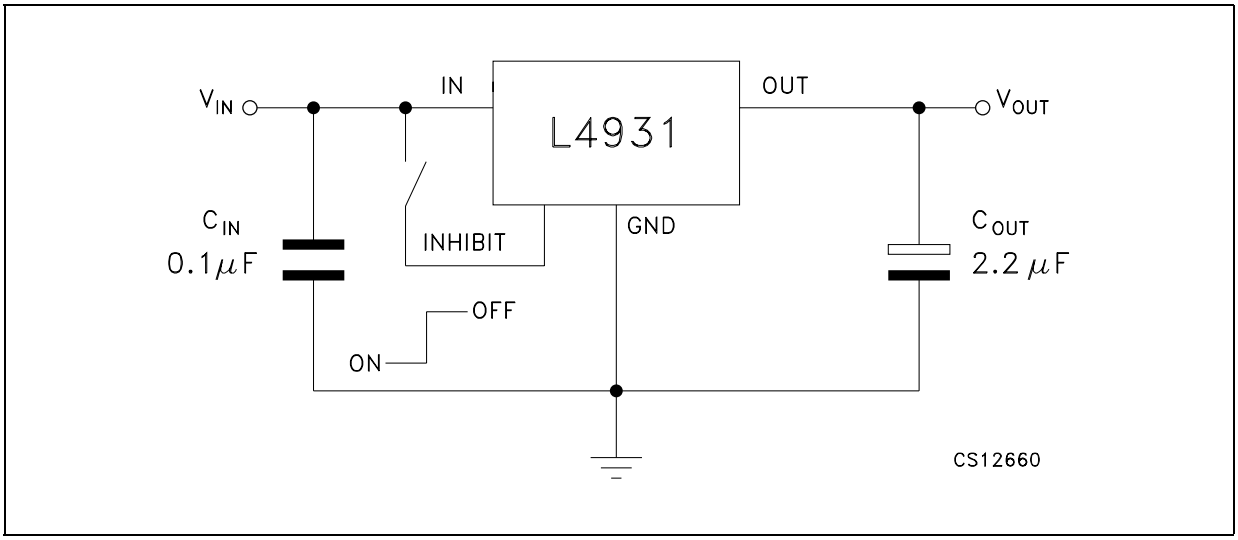
BOTTOM VIEW

ORDERING CODES

TO-220	SO-8	PPAK	DPAK	TO-92	OUTPUT VOLTAGE
L4931CV12 (*)	L4931CD12 (*)	L4931CPT12 (*)	L4931CDT12 (*)	L4931CZ12 (*)	1.25 V
L4931ABV12 (*)	L4931ABD12 (*)	L4931ABPT12 (*)	L4931ABDT12 (*)	L4931ABZ12 (*)	1.25 V
L4931CV15 (*)	L4931CD15 (*)	L4931CPT15 (*)	L4931CDT15 (*)	L4931CZ15 (*)	1.5 V
L4931ABV15 (*)	L4931ABD15 (*)	L4931ABPT15 (*)	L4931ABDT15 (*)	L4931ABZ15 (*)	1.5 V
L4931CV25 (*)	L4931CD25	L4931CPT25 (*)	L4931CDT25	L4931CZ25 (*)	2.5 V
L4931ABV25 (*)	L4931ABD25	L4931ABPT25 (*)	L4931ABDT25	L4931ABZ25 (*)	2.5 V
L4931CV27	L4931CD27	L4931CPT27	L4931CDT27	L4931CZ27	2.7 V
L4931ABV27	L4931ABD27	L4931ABPT27	L4931ABDT27	L4931ABZ27	2.7 V
L4931CV30	L4931CD30	L4931CPT30	L4931CDT30	L4931CZ30	3 V
L4931ABV30	L4931ABD30	L4931ABPT30	L4931ABDT30	L4931ABZ30	3 V
L4931CV33	L4931CD33	L4931CPT33	L4931CDT33	L4931CZ33	3.3 V
L4931ABV33	L4931ABD33	L4931ABPT33	L4931ABDT33	L4931ABZ33	3.3 V
L4931CV35	L4931CD35	L4931CPT35	L4931CDT35	L4931CZ35	3.5 V
L4931ABV35	L4931ABD35	L4931ABPT35	L4931ABDT35	L4931ABZ35	3.5 V
L4931CV40	L4931CD40	L4931CPT40	L4931CDT40	L4931CZ40	4 V
L4931ABV40	L4931ABD40	L4931ABPT40	L4931ABDT40	L4931ABZ40	4 V
L4931CV45 (*)	L4931CD45 (*)	L4931CPT45 (*)	L4931CDT45 (*)	L4931CZ45 (*)	4.5 V
L4931ABV45 (*)	L4931ABD45 (*)	L4931ABPT45 (*)	L4931ABDT45 (*)	L4931ABZ45 (*)	4.5 V
L4931CV47	L4931CD47	L4931CPT47	L4931CDT47	L4931CZ47	4.75 V
L4931ABV47	L4931ABD47	L4931ABPT47	L4931ABDT47	L4931ABZ47	4.75 V
L4931CV50	L4931CD50	L4931CPT50	L4931CDT50	L4931CZ50	5 V
L4931ABV50	L4931ABD50	L4931ABPT50	L4931ABDT50	L4931ABZ50	5 V
L4931CV52 (*)	L4931CD52 (*)	L4931CPT52 (*)	L4931CDT52 (*)	L4931CZ52 (*)	5.2 V
L4931ABV52 (*)	L4931ABD52 (*)	L4931ABPT52 (*)	L4931ABDT52 (*)	L4931ABZ52 (*)	5.2 V
L4931CV55 (*)	L4931CD55 (*)	L4931CPT55 (*)	L4931CDT55 (*)	L4931CZ55 (*)	5.5 V
L4931ABV55 (*)	L4931ABD55 (*)	L4931ABPT55 (*)	L4931ABDT55 (*)	L4931ABZ55 (*)	5.5 V
L4931CV60	L4931CD60	L4931CPT60	L4931CDT60	L4931CZ60	6 V
L4931ABV60	L4931ABD60	L4931ABPT60	L4931ABDT60	L4931ABZ60	6 V
L4931CV80	L4931CD80	L4931CPT80	L4931CDT80	L4931CZ80	8 V
L4931ABV80	L4931ABD80	L4931ABPT80	L4931ABDT80	L4931ABZ80	8 V
L4931CV120	L4931CD120	L4931CPT120	L4931CDT120	L4931CZ120	12 V
L4931ABV120	L4931ABD120	L4931ABPT120	L4931ABDT120	L4931ABZ120	12 V

(*) Available on request.

TEST CIRCUITS



ELECTRICAL CHARACTERISTICS OF L4931ABxx12 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 3.3 V		1.238	1.25	1.263	V
		I_O = 5 mA V_I = 3.3 V T_A=-25 to 85°C		1.225		1.275	
V_I	Operating Input Voltage	I_O = 250 mA		2.5		20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 2.5 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 2.7 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 2.7 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 2.7 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 3.7 ± 1 V	f = 120 Hz		80		dB
			f = 1 KHz		77		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			1.25		V
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx12 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 3.3 V		1.225	1.25	1.275	V
		I_O = 5 mA V_I = 3.3 V T_A=-25 to 85°C		1.2		1.3	
V_I	Operating Input Voltage	I_O = 250 mA		2.5		20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 2.5 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 2.7 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 2.7 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 2.7 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 3.7 ± 1 V	f = 120 Hz		80		dB
			f = 1 KHz		77		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			1.25		V
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx15 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 3.5 V		1.485	1.5	1.515	V
		I_O = 5 mA V_I = 3.5 V T_A=-25 to 85°C		1.47		1.53	
V_I	Operating Input Voltage	I_O = 250 mA		2.5		20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 2.5 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 2.7 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 2.7 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 2.7 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 3.7 ± 1 V	f = 120 Hz		79		dB
			f = 1 KHz		76		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			1		V
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx15 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 3.5 V		1.47	1.5	1.53	V
		I_O = 5 mA V_I = 3.5 V T_A=-25 to 85°C		1.44		1.56	
V_I	Operating Input Voltage	I_O = 250 mA		2.5		20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 2.5 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 2.7 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 2.7 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 2.7 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 3.7 ± 1 V	f = 120 Hz		79		dB
			f = 1 KHz		76		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			1		V
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx25 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 4.5 V		2.475	2.5	2.525	V
		I_O = 5 mA V_I = 4.5 V T_A=-25 to 85°C		2.45		2.55	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 3.2 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 3.4 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 3.4 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 3.4 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 4.4 ± 1 V	f = 120 Hz		75		dB
			f = 1 KHz		72		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx25 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 4.5 V		2.45	2.5	2.55	V
		I_O = 5 mA V_I = 4.5 V T_A=-25 to 85°C		2.4		2.6	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 3.3 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 3.5 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 3.5 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 3.5 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 4.4 ± 1 V	f = 120 Hz		75		dB
			f = 1 KHz		72		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx27 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 4.7 V		2.673	2.7	2.727	V
		I_O = 5 mA V_I = 4.7 V T_A=-25 to 85°C		2.646		2.754	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 3.4 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 3.6 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 3.6 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 3.6 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 4.6 ± 1 V	f = 120 Hz		74		dB
			f = 1 KHz		71		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx27 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 4.7 V		2.646	2.7	2.754	V
		I_O = 5 mA V_I = 4.7 V T_A=-25 to 85°C		2.592		2.808	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 3.4 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 3.6 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 3.6 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 3.6 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 4.6 ± 1 V	f = 120 Hz		74		dB
			f = 1 KHz		71		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx30 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 5 V		2.97	3	3.03	V
		I_O = 5 mA V_I = 5 V T_A=-25 to 85°C		2.94		3.06	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 3.7 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 3.9 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 3.9 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 3.9 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 4.9 ± 1 V	f = 120 Hz		74		dB
			f = 1 KHz		71		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx30 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 5 V		2.94	3	3.06	V
		I_O = 5 mA V_I = 5 V T_A=-25 to 85°C		2.88		3.12	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 3.8 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 4 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 4 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 4 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 5 ± 1 V	f = 120 Hz		74		dB
			f = 1 KHz		71		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx33 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 5.3 V		3.267	3.3	3.333	V
		I_O = 5 mA V_I = 5.3 V T_A=-25 to 85°C		3.234		3.366	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 4 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 4.2 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 4.2 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 4.2 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 5.2 ± 1 V	f = 120 Hz		73		dB
			f = 1 KHz		70		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx33 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 5.3 V		3.234	3.3	3.366	V
		I_O = 5 mA V_I = 5.3 V T_A=-25 to 85°C		3.168		3.432	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 4.1 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 4.3 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 4.3 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 4.3 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 5.3 ± 1 V	f = 120 Hz		73		dB
			f = 1 KHz		70		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx35 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 5.5 V		3.465	3.5	3.535	V
		I_O = 5 mA V_I = 5.5 V T_A=-25 to 85°C		3.43		3.57	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 4.2 to 20 V I_O = 0.5 mA			3	15	mV
ΔV_O(*)	Load Regulation	V_I = 4.4 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 4.4 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 4.4 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 5.4 ± 1 V	f = 120 Hz		73		dB
			f = 1 KHz		70		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx35 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 5.5 V		3.43	3.5	3.57	V
		I_O = 5 mA V_I = 5.5 V T_A=-25 to 85°C		3.36		3.64	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 4.3 to 20 V I_O = 0.5 mA			3	18	mV
ΔV_O(*)	Load Regulation	V_I = 4.5 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 4.5 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 4.5 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 5.5 ± 1 V	f = 120 Hz		73		dB
			f = 1 KHz		70		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx40 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 6 V		3.96	4	4.04	V
		I_O = 5 mA V_I = 6 V T_A=-25 to 85°C		3.92		4.08	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 4.7 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 4.9 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 4.9 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 4.9 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 5.9 ± 1 V	f = 120 Hz		72		dB
			f = 1 KHz		69		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx40 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 6 V		3.92	4	4.08	V
		I_O = 5 mA V_I = 6 V T_A=-25 to 85°C		3.84		4.16	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 4.8 to 20 V I_O = 0.5 mA			3.5	21	mV
ΔV_O(*)	Load Regulation	V_I = 5 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 5 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 5 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 6 ± 1 V	f = 120 Hz		72		dB
			f = 1 KHz		69		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx45 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 6.5 V		4.455	4.5	4.545	V
		I_O = 5 mA V_I = 6.5 V T_A=-25 to 85°C		4.41		4.59	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 5.2 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 5.4 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 5.4 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 5.4 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 6.4 ± 1 V	f = 120 Hz		71		dB
			f = 1 KHz		68		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx45 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 6.5 V		4.41	4.5	4.59	V
		I_O = 5 mA V_I = 6.5 V T_A=-25 to 85°C		4.32		4.68	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 5.3 to 20 V I_O = 0.5 mA			3.5	21	mV
ΔV_O(*)	Load Regulation	V_I = 5.5 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 5.5 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 5.5 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 6.5 ± 1 V	f = 120 Hz		71		dB
			f = 1 KHz		68		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx47 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 6.7 V		4.653	4.7	4.747	V
		I_O = 5 mA V_I = 6.7 V T_A=-25 to 85°C		4.606		4.794	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 5.4 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 5.6 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 5.6 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 5.6 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 6.6 ± 1 V	f = 120 Hz		71		dB
			f = 1 KHz		68		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx47 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 6.7 V		4.606	4.7	4.794	V
		I_O = 5 mA V_I = 6.7 V T_A=-25 to 85°C		4.512		4.888	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 5.5 to 20 V I_O = 0.5 mA			3.5	21	mV
ΔV_O(*)	Load Regulation	V_I = 5.7 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 5.7 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 5.7 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 6.7 ± 1 V	f = 120 Hz		71		dB
			f = 1 KHz		68		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx50 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 7 V		4.95	5	5.05	V
		I_O = 5 mA V_I = 7 V T_A=-25 to 85°C		4.9		5.1	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 5.8 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 6 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 6 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 6 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 7 ± 1 V	f = 120 Hz		70		dB
			f = 1 KHz		67		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx50 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 7 V		4.9	5	5.1	V
		I_O = 5 mA V_I = 7 V T_A=-25 to 85°C		4.8		5.2	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 5.8 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 6 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 6 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 6 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 7 ± 1 V	f = 120 Hz		70		dB
			f = 1 KHz		67		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx52 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 7.2 V		5.148	5.2	5.252	V
		I_O = 5 mA V_I = 7.2 V T_A=-25 to 85°C		5.096		5.304	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 6 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 6.2 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 6.2 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 6.2 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 7.2 ± 1 V	f = 120 Hz		70		dB
			f = 1 KHz		67		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx52 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 7.2 V		5.096	5.2	5.304	V
		I_O = 5 mA V_I = 7.2 V T_A=-25 to 85°C		4.992		5.408	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 6 to 20 V I_O = 0.5 mA			3.5	21	mV
ΔV_O(*)	Load Regulation	V_I = 6.2 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 6.2 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 6.2 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 7.2 ± 1 V	f = 120 Hz		70		dB
			f = 1 KHz		67		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx55 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 7.5 V		5.445	5.5	5.555	V
		I_O = 5 mA V_I = 7.5 V T_A=-25 to 85°C		5.39		5.61	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 6.3 to 20 V I_O = 0.5 mA			3.5	17.5	mV
ΔV_O(*)	Load Regulation	V_I = 6.5 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 6.5 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 6.5 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 7.5 ± 1 V	f = 120 Hz		70		dB
			f = 1 KHz		67		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx55 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 7.5 V		5.39	5.5	5.61	V
		I_O = 5 mA V_I = 7.5 V T_A=-25 to 85°C		5.28		5.72	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 6.3 to 20 V I_O = 0.5 mA			3.5	21	mV
ΔV_O(*)	Load Regulation	V_I = 6.5 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 6.5 to 20 V I_O = 0 mA			0.6	1	mA
		V_I = 6.5 to 20 V I_O = 250 mA			4	6	
	OFF MODE	V_I = 6 V			50	100	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 7.5 ± 1 V	f = 120 Hz		70		dB
			f = 1 KHz		67		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx60 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 8 V		5.94	6	6.06	V
		I_O = 5 mA V_I = 8 V T_A=-25 to 85°C		5.88		6.12	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 6.8 to 20 V I_O = 0.5 mA			4	20	mV
ΔV_O(*)	Load Regulation	V_I = 7 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 7 to 20 V I_O = 0 mA			0.8	1.6	mA
		V_I = 7 to 20 V I_O = 250 mA			4.5	7	
	OFF MODE	V_I = 6 V			70	140	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 8 ± 1 V	f = 120 Hz		69		dB
			f = 1 KHz		66		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx60 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 8 V		5.88	6	6.12	V
		I_O = 5 mA V_I = 8 V T_A=-25 to 85°C		5.76		6.24	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 6.8 to 20 V I_O = 0.5 mA			4	24	mV
ΔV_O(*)	Load Regulation	V_I = 7 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 7 to 20 V I_O = 0 mA			0.8	1.6	mA
		V_I = 7 to 20 V I_O = 250 mA			4.5	7	
	OFF MODE	V_I = 6 V			70	140	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 8 ± 1 V	f = 120 Hz		69		dB
			f = 1 KHz		66		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx80 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 10 V		7.92	8	8.08	V
		I_O = 5 mA V_I = 10 V T_A=-25 to 85°C		7.84		8.16	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 8.8 to 20 V I_O = 0.5 mA			4	20	mV
ΔV_O(*)	Load Regulation	V_I = 9 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 9 to 20 V I_O = 0 mA			0.8	1.6	mA
		V_I = 9 to 20 V I_O = 250 mA			4.5	7	
	OFF MODE	V_I = 6 V			70	140	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 10 ± 1 V	f = 120 Hz		67		dB
			f = 1 KHz		64		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx80 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 10 V		7.84	8	8.16	V
		I_O = 5 mA V_I = 10 V T_A=-25 to 85°C		7.68		8.32	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 8.9 to 20 V I_O = 0.5 mA			4	24	mV
ΔV_O(*)	Load Regulation	V_I = 9.1 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 9.1 to 20 V I_O = 0 mA			0.8	1.6	mA
		V_I = 9.1 to 20 V I_O = 250 mA			4.5	7	
	OFF MODE	V_I = 6 V			70	140	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 10.1 ± 1 V	f = 120 Hz		67		dB
			f = 1 KHz		64		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931ABxx120 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 14 V		11.88	12	12.12	V
		I_O = 5 mA V_I = 14 V T_A=-25 to 85°C		11.76		12.24	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 12.8 to 20 V I_O = 0.5 mA			4	20	mV
ΔV_O(*)	Load Regulation	V_I = 13 V I_O = 0.5 to 250 mA			3	15	mV
I_d	Quiescent Current ON MODE	V_I = 13 to 20 V I_O = 0 mA			0.8	1.6	mA
		V_I = 13 to 20 V I_O = 250 mA			4.5	7	
	OFF MODE	V_I = 6 V			90	180	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 14 ± 1 V	f = 120 Hz		64		dB
			f = 1 KHz		61		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

ELECTRICAL CHARACTERISTICS OF L4931Cxx120 (refer to the test circuits, T_J = 25°C, C_I = 0.1 µF, C_O = 2.2 µF unless otherwise specified).

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	I_O = 5 mA V_I = 14 V		11.76	12	12.24	V
		I_O = 5 mA V_I = 14 V T_A=-25 to 85°C		11.52		12.48	
V_I	Operating Input Voltage	I_O = 250 mA				20	V
I_{out}	Output Current Limit				300		mA
ΔV_O	Line Regulation	V_I = 12.9 to 20 V I_O = 0.5 mA			4	24	mV
ΔV_O(*)	Load Regulation	V_I = 13.1 V I_O = 0.5 to 250 mA			3	18	mV
I_d	Quiescent Current ON MODE	V_I = 13.1 to 20 V I_O = 0 mA			0.8	1.6	mA
		V_I = 13.1 to 20 V I_O = 250 mA			4.5	7	
	OFF MODE	V_I = 6 V			90	180	µA
SVR	Supply Voltage Rejection	I_O = 5 mA V_I = 14.1 ± 1 V	f = 120 Hz		64		dB
			f = 1 KHz		61		
			f = 10 KHz		55		
eN	Output Noise Voltage	B =10 Hz to 100 KHz			50		µV
V_d(*)	Dropout Voltage	I_O = 250 mA			0.4	0.6	V
		I_O = 250 mA T_J= -40 to 125°C				0.8	
V_{IL}	Control Input Logic Low	T_A= -40 to 125°C				0.8	V
V_{IH}	Control Input Logic High	T_A= -40 to 125°C		2			V
I_I	Control Input Current	V_I = 6 V, V_C = 6 V			10		µA
C_O	Output Bypass Capacitance	ESR = 0.1 to 10 Ω I_O = 0 to 250 mA		2	10		µF

(*) For SO-8 package the maximum limit of load regulation and dropout is increased by 20 mV.

Figure 1 : Supply Current vs Output Current

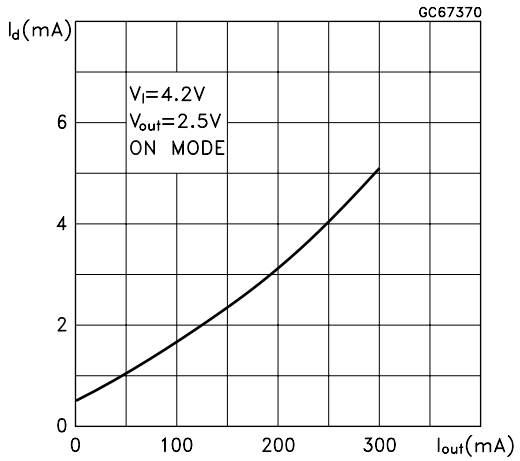


Figure 2 : Dropout Voltage vs Temperature

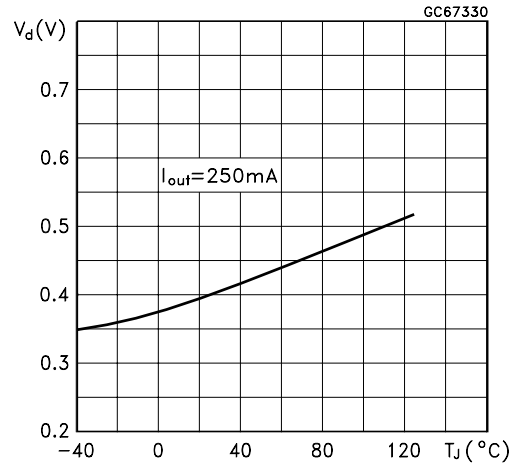


Figure 3 : Supply Current vs Input Voltage

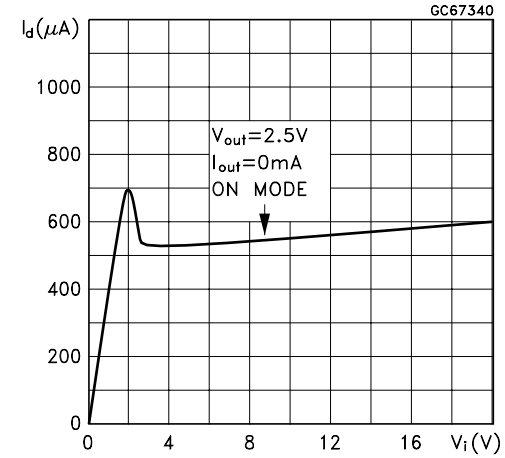


Figure 4 : Supply Current vs Temperature

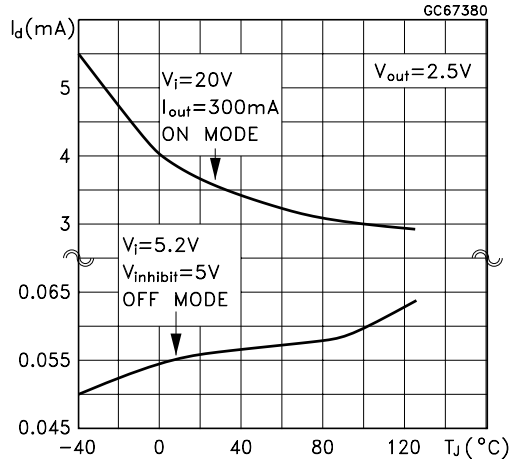


Figure 5 : Short Circuit Current vs Dropout Voltage

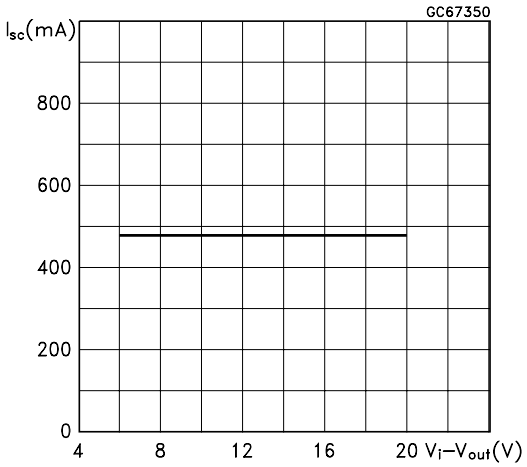
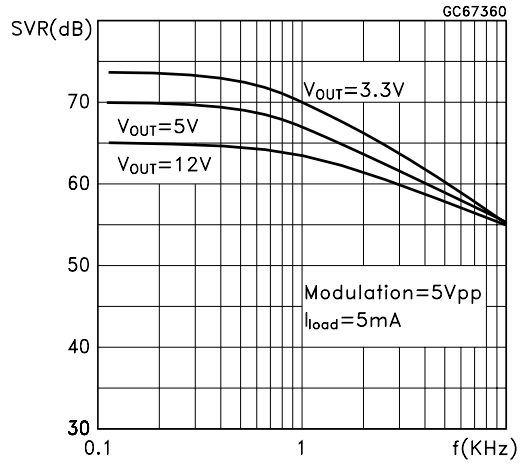
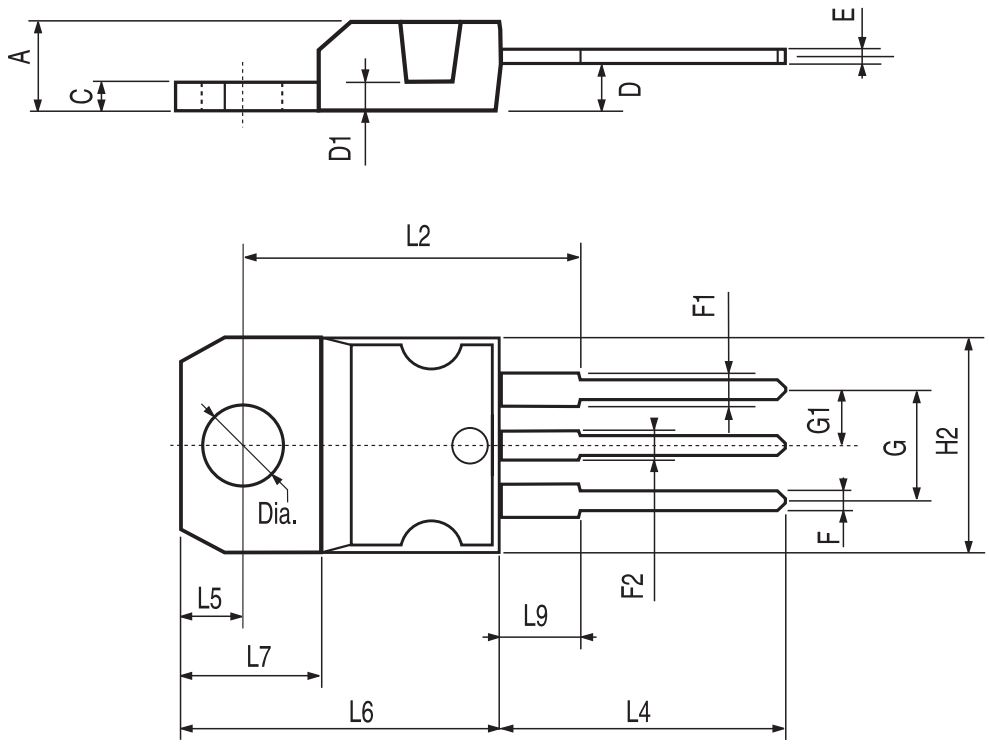


Figure 6 : S.V.R. vs Input Voltage Signal Frequency



TO-220 MECHANICAL DATA

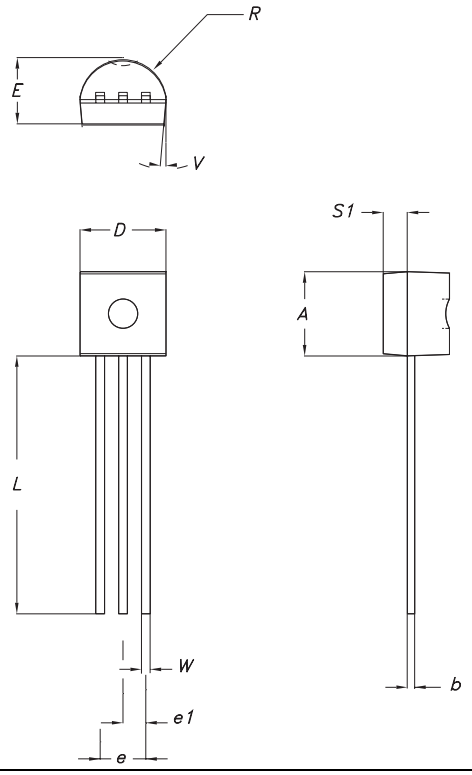
DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151



P011C

TO-92 MECHANICA DATA

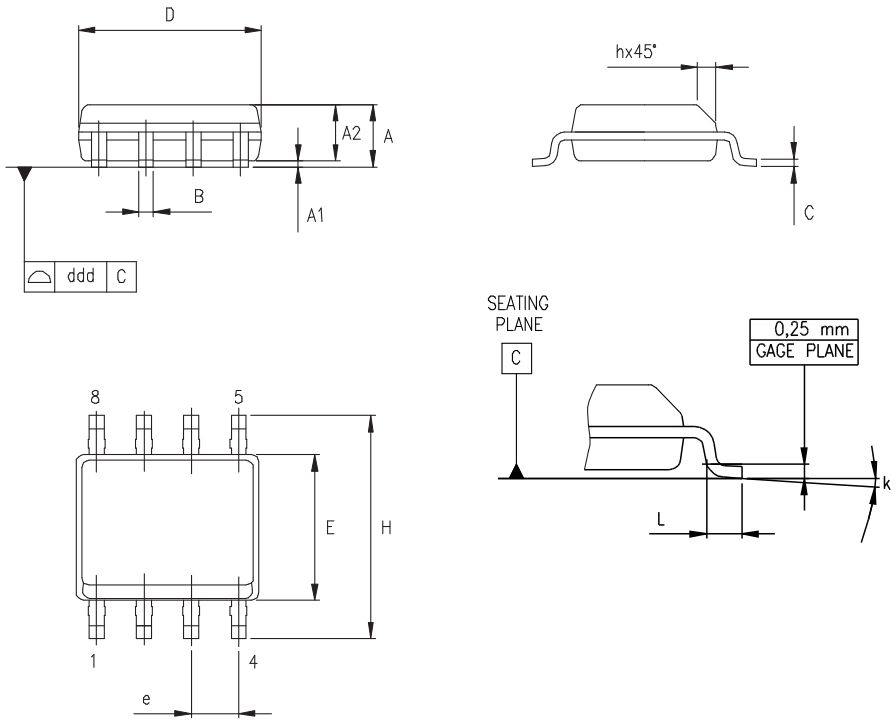
DIM.	mm.			mils		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	4.32		4.95	170.1		194.9
b	0.36		0.51	14.2		20.1
D	4.45		4.95	175.2		194.9
E	3.30		3.94	129.9		155.1
e	2.41		2.67	94.9		105.1
e1	1.14		1.40	44.9		55.1
L	12.7		15.49	500.0		609.8
R	2.16		2.41	85.0		94.9
S1	0.92		1.52	36.2		59.8
W	0.41		0.56	16.1		22.0



0102782/C

SO-8 MECHANICAL DATA

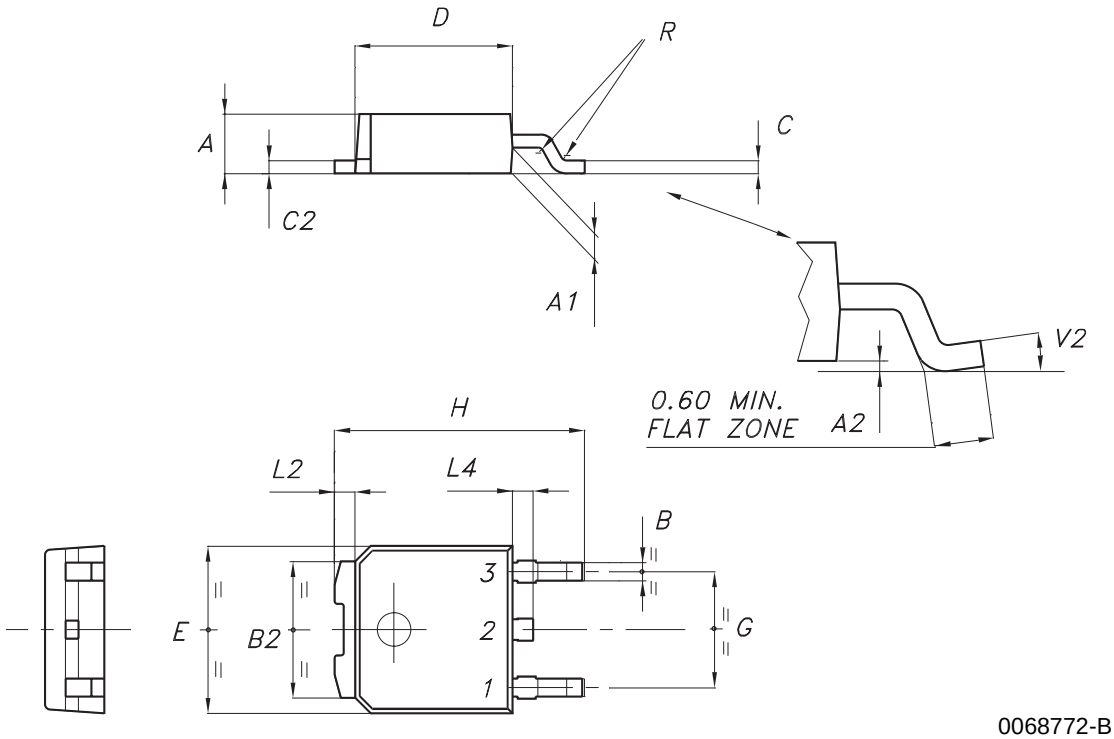
DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	1.35		1.75	0.053		0.069
A1	0.10		0.25	0.04		0.010
A2	1.10		1.65	0.043		0.065
B	0.33		0.51	0.013		0.020
C	0.19		0.25	0.007		0.010
D	4.80		5.00	0.189		0.197
E	3.80		4.00	0.150		0.157
e		1.27			0.050	
H	5.80		6.20	0.228		0.244
h	0.25		0.50	0.010		0.020
L	0.40		1.27	0.016		0.050
k	8° (max.)					
ddd			0.1			0.04



0016023/C

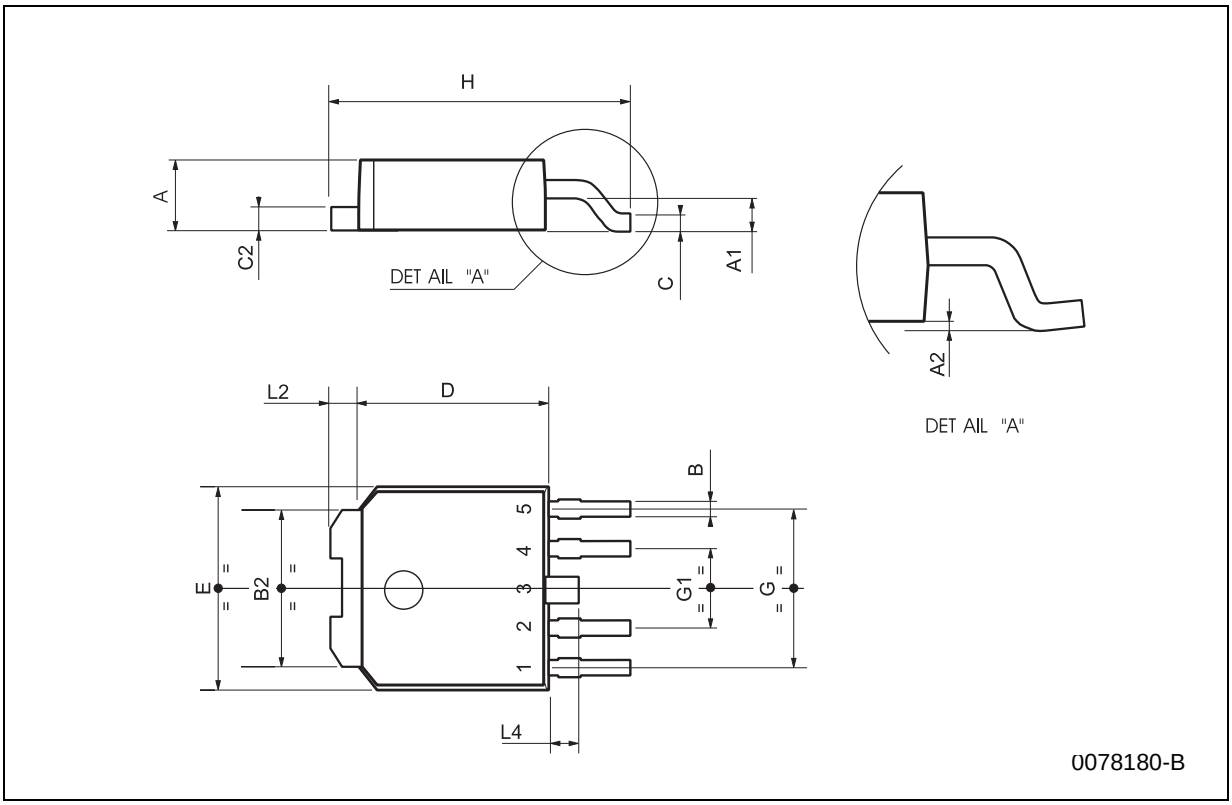
DPAK MECHANICAL DATA

DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	2.2		2.4	0.086		0.094
A1	0.9		1.1	0.035		0.043
A2	0.03		0.23	0.001		0.009
B	0.64		0.9	0.025		0.035
B2	5.2		5.4	0.204		0.212
C	0.45		0.6	0.017		0.023
C2	0.48		0.6	0.019		0.023
D	6		6.2	0.236		0.244
E	6.4		6.6	0.252		0.260
G	4.4		4.6	0.173		0.181
H	9.35		10.1	0.368		0.397
L2		0.8			0.031	
L4	0.6		1	0.023		0.039



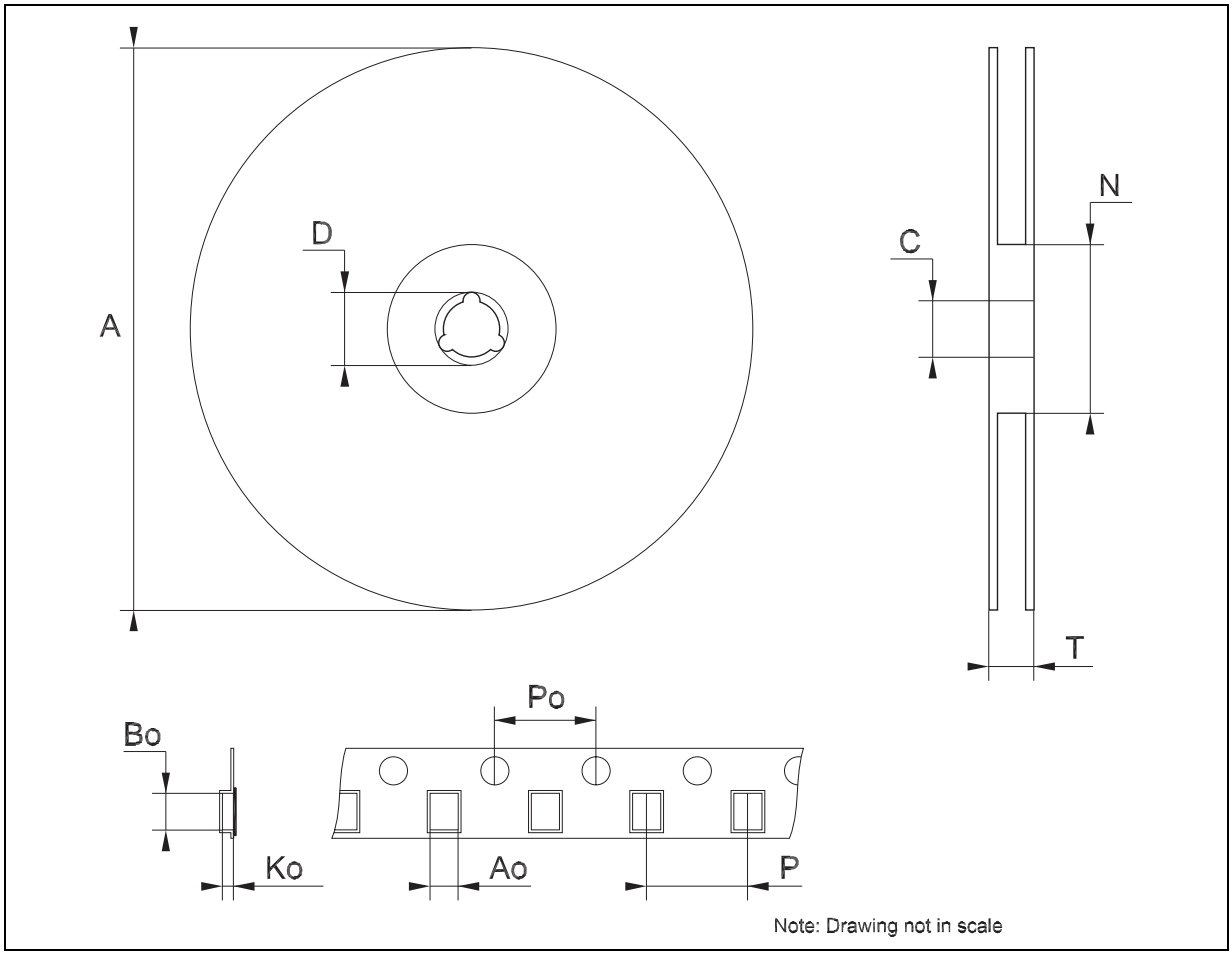
PPAK MECHANICAL DATA

DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A	2.2		2.4	0.086		0.094
A1	0.9		1.1	0.035		0.043
A2	0.03		0.23	0.001		0.009
B	0.4		0.6	0.015		0.023
B2	5.2		5.4	0.204		0.212
C	0.45		0.6	0.017		0.023
C2	0.48		0.6	0.019		0.023
D	6		6.2	0.236		0.244
E	6.4		6.6	0.252		0.260
G	4.9		5.25	0.193		0.206
G1	2.38		2.7	0.093		0.106
H	9.35		10.1	0.368		0.397
L2		0.8			0.031	
L4	0.6		1	0.023		0.039



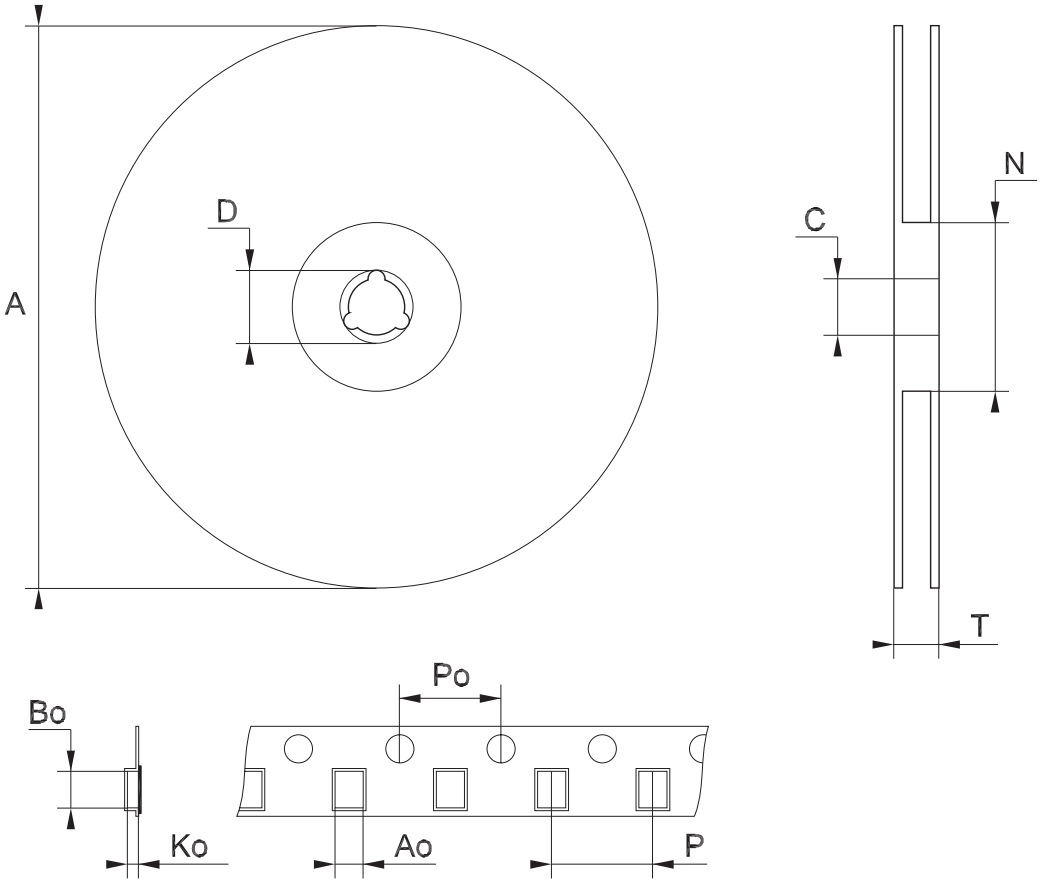
Tape & Reel DPAK-PPAK MECHANICAL DATA

DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A			180			7.086
C	12.8	13.0	13.2	0.504	0.512	0.519
D	20.2			0.795		
N	60			2.362		
T			14.4			0.567
Ao	6.80	6.90	7.00	0.268	0.272	0.2.76
Bo	10.40	10.50	10.60	0.409	0.413	0.417
Ko	2.55	2.65	2.75	0.100	0.104	0.105
Po	3.9	4.0	4.1	0.153	0.157	0.161
P	7.9	8.0	8.1	0.311	0.315	0.319



Tape & Reel SO-8 MECHANICAL DATA

DIM.	mm.			inch		
	MIN.	TYP	MAX.	MIN.	TYP.	MAX.
A			330			12.992
C	12.8		13.2	0.504		0.519
D	20.2			0.795		
N	60			2.362		
T			22.4			0.882
Ao	8.1		8.5	0.319		0.335
Bo	5.5		5.9	0.216		0.232
Ko	2.1		2.3	0.082		0.090
Po	3.9		4.1	0.153		0.161
P	7.9		8.1	0.311		0.319



Note: Drawing not in scale

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