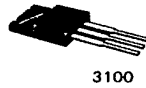


# L7800ML Series



3100

Monolithic Linear IC

## 5 to 24V 1A 3-Pin Voltage Regulator

©2608

**Features**

- Output voltage L7805ML:5V L7806ML:6V L7807ML:7V L7808ML:8V  
L7809ML:9V L7810ML:10V L7812ML:12V L7815ML:15V  
L7818ML:18V L7820ML:20V L7824ML:24V
- Output current 1A
- On-chip overheat protector
- On-chip overcurrent limiter
- On-chip ASO protector
- TO-220ML package facilitating easy mounting and thermal design
- Micaless version that insulates the package from each pin, requiring no insulation for mounting

**[Common to L7800ML series]**

**Maximum Ratings at Ta=25°C**

				unit
Maximum Supply Voltage	V <sub>CC</sub> max	Pin1	35	V
Allowable Power Dissipation	Pd max		2	W
	Pd	(Tc=25°C)	15	W
Operating Temperature	Topg		-20 to +80	°C
Storage Temperature	Tstg		-40 to +150	°C

**[L7805ML]**

**Recommended Operating Conditions at Ta=25°C**

				unit
Input Voltage	V <sub>IN</sub>		7.5 to 20	V
Output Current	I <sub>OUT</sub>		5 to 1000	mA

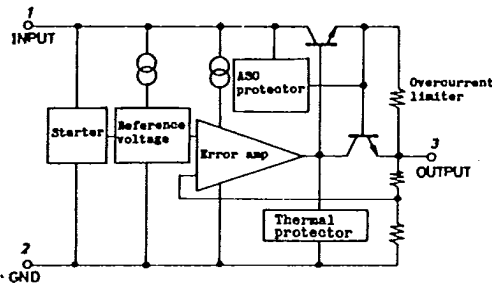
**Operating Characteristics at Ta=25°C, V<sub>IN</sub>=10V, I<sub>OUT</sub>=500mA,**

See specified Test Circuit.

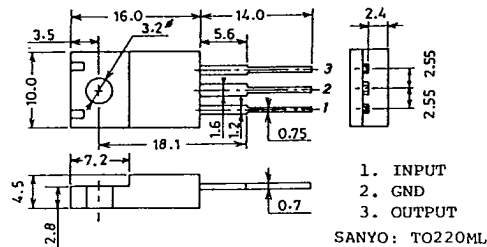
				min	typ	max	unit
Output Voltage	V <sub>OUT</sub>	Tj=25°C		4.8	5.0	5.2	V
Line Regulation	ΔV <sub>oline</sub>	Tj=25°C, 7V ≤ V <sub>IN</sub> ≤ 25V			3.0	50	mV
		" 8V ≤ V <sub>IN</sub> ≤ 20V			1.0	25	mV
Load Regulation	ΔV <sub>oload</sub>	Tj=25°C, 5mA ≤ I <sub>OUT</sub> ≤ 1.5A				100	mV
		" 250mA ≤ I <sub>OUT</sub> ≤ 750mA				50	mV

Continued on next page.

**Equivalent Circuit**



**Case Outline 3100-S3TR (unit:mm)**



7017TA, TS No.2608-1/7

L7800ML Series

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Continued from preceding page.

			min	typ	max	unit
Output Voltage	$V_{OUT}$	$7V \leq V_{IN} \leq 20V, 5mA \leq I_{OUT} \leq 1A$	4.75		5.25	V
Current Dissipation	$I_{CC}$	$T_j = 25^\circ C$			8.0	mA
Current Dissipation Variation (Line)	$\Delta I_{CCline}$	$7V \leq V_{IN} \leq 25V$			1.3	mA
Current Dissipation Variation (Load)	$\Delta I_{CCload}$	$5mA \leq I_{OUT} \leq 1A$			0.5	mA
Output Noise Voltage	$V_{NO}$	$10Hz \leq f \leq 100kHz$		40		uV
Ripple Rejection	$R_{rej}$	$f = 120Hz$ $8V \leq V_{IN} \leq 19V$ $T_j = 25^\circ C$	62	80		dB
Minimum Input-Output Voltage Drop	$V_{drop}$	$I_{OUT} = 1A$		2.0		V
Short Current	$I_{OS}$	$T_j = 25^\circ C, V_{IN} = 35V, to GND$		300		mA
Peak Output Current	$I_{op}$	$T_j = 25^\circ C$		2.2		A

[L7806ML]

Recommended Operating Conditions at  $T_a = 25^\circ C$

			unit
Input Voltage	$V_{IN}$	8.5 to 21	V
Output Current	$I_{OUT}$	5 to 1000	mA

Operating Characteristics at  $T_a = 25^\circ C, V_{IN} = 11V, I_{OUT} = 500mA$ ,  
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j = 25^\circ C$	5.75	6.0	6.25	V
Line Regulation	$\Delta V_{oline}$	$T_j = 25^\circ C, 8V \leq V_{IN} \leq 25V$		5.0	60	mV
		" $9V \leq V_{IN} \leq 20V$		1.5	30	mV
Load Regulation	$\Delta V_{oload}$	$T_j = 25^\circ C, 5mA \leq I_{OUT} \leq 1.5A$			120	mV
		" $250mA \leq I_{OUT} \leq 750mA$			60	mV
Output Voltage	$V_{OUT}$	$8V \leq V_{IN} \leq 21V, 5mA \leq I_{OUT} \leq 1A$	5.7		6.3	V
Current Dissipation	$I_{CC}$	$T_j = 25^\circ C$			8.0	mA
Current Dissipation Variation (Line)	$\Delta I_{CCline}$	$8V \leq V_{IN} \leq 25V$			1.3	mA
Current Dissipation Variation (Load)	$\Delta I_{CCload}$	$5mA \leq I_{OUT} \leq 1A$			0.5	mA
Output Noise Voltage	$V_{NO}$	$10Hz \leq f \leq 100kHz$		45		uV
Ripple Rejection	$R_{rej}$	$f = 120Hz$ $9V \leq V_{IN} \leq 20V$ $T_j = 25^\circ C$	59	80		dB
Minimum Input-Output Voltage Drop	$V_{drop}$	$I_{OUT} = 1A$		2.0		V
Short Current	$I_{OS}$	$T_j = 25^\circ C, V_{IN} = 35V, to GND$		300		mA
Peak Output Current	$I_{op}$	$T_j = 25^\circ C$		2.2		A

[L7807ML]

Recommended Operating Conditions at  $T_a = 25^\circ C$

			unit
Input Voltage	$V_{IN}$	9.5 to 22	V
Output Current	$I_{OUT}$	5 to 1000	mA

Continued on next page.

## L7800ML Series

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Continued from preceding page.

Operating Characteristics at  $T_a=25^\circ\text{C}$ ,  $V_{IN}=12\text{V}$ ,  $I_{OUT}=500\text{mA}$ ,  
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j=25^\circ\text{C}$	6.72	7.0	7.28	V
Line Regulation	$\Delta V_{oline}$	$T_j=25^\circ\text{C}$ , $9\text{V} \leq V_{IN} \leq 25\text{V}$		6.0	60	mV
		" $10\text{V} \leq V_{IN} \leq 20\text{V}$		2.0	30	mV
Load Regulation	$\Delta V_{oload}$	$T_j=25^\circ\text{C}$ , $5\text{mA} \leq I_{OUT} \leq 1.5\text{A}$			140	mV
		" $250\text{mA} \leq I_{OUT} \leq 750\text{mA}$			70	mV
Output Voltage	$V_{OUT}$	$9\text{V} \leq V_{IN} \leq 22\text{V}$ , $5\text{mA} \leq I_{OUT} \leq 1\text{A}$	6.6		7.4	V
Current Dissipation	$I_{CC}$	$T_j=25^\circ\text{C}$			8.0	mA
Current Dissipation	$\Delta I_{CCline}$	$9\text{V} \leq V_{IN} \leq 25\text{V}$			1.3	mA
Variation (Line)						
Current Dissipation	$\Delta I_{CCload}$	$5\text{mA} \leq I_{OUT} \leq 1\text{A}$			0.5	mA
Variation (Load)						
Output Noise Voltage	$V_{NO}$	$10\text{Hz} \leq f \leq 100\text{kHz}$		48		$\mu\text{V}$
Ripple Rejection	$R_{rej}$	$f=120\text{Hz}$	58	80		dB
		$10\text{V} \leq V_{IN} \leq 21\text{V}$				
		$T_j=25^\circ\text{C}$				
Minimum Input-Output	$V_{drop}$	$I_{OUT}=1\text{A}$		2.0		V
Voltage Drop						
Short Current	$I_{OS}$	$T_j=25^\circ\text{C}$ , $V_{IN}=35\text{V}$ , to GND		300		mA
Peak Output Current	$I_{op}$	$T_j=25^\circ\text{C}$		2.2		A

## [L7808ML]

Recommended Operating Conditions at  $T_a=25^\circ\text{C}$ 

				unit
Input Voltage	$V_{IN}$		10.5 to 23	V
Output Current	$I_{OUT}$		5 to 1000	mA

Operating Characteristics at  $T_a=25^\circ\text{C}$ ,  $V_{IN}=15\text{V}$ ,  $I_{OUT}=500\text{mA}$ ,  
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j=25^\circ\text{C}$	7.7	8.0	8.3	V
Line Regulation	$\Delta V_{oline}$	$T_j=25^\circ\text{C}$ , $10.5\text{V} \leq V_{IN} \leq 25\text{V}$		6.0	60	mV
		" $11\text{V} \leq V_{IN} \leq 20\text{V}$		2.0	30	mV
Load Regulation	$\Delta V_{oload}$	$T_j=25^\circ\text{C}$ , $5\text{mA} \leq I_{OUT} \leq 1.5\text{A}$			160	mV
		" $250\text{mA} \leq I_{OUT} \leq 750\text{mA}$			80	mV
Output Voltage	$V_{OUT}$	$10.5\text{V} \leq V_{IN} \leq 23\text{V}$ , $5\text{mA} \leq I_{OUT} \leq 1\text{A}$	7.6		8.4	V
Current Dissipation	$I_{CC}$	$T_j=25^\circ\text{C}$			8.0	mA
Current Dissipation	$\Delta I_{CCline}$	$10.5\text{V} \leq V_{IN} \leq 25\text{V}$			1.0	mA
Variation (Line)						
Current Dissipation	$\Delta I_{CCload}$	$5\text{mA} \leq I_{OUT} \leq 1\text{A}$			0.5	mA
Variation (Load)						
Output Noise Voltage	$V_{NO}$	$10\text{Hz} \leq f \leq 100\text{kHz}$		50		$\mu\text{V}$
Ripple Rejection	$R_{rej}$	$f=120\text{Hz}$	56	80		dB
		$11.5\text{V} \leq V_{IN} \leq 22\text{V}$				
		$T_j=25^\circ\text{C}$				
Minimum Input-Output	$V_{drop}$	$I_{OUT}=1\text{A}$		2.0		V
Voltage Drop						
Short Current	$I_{OS}$	$T_j=25^\circ\text{C}$ , $V_{IN}=35\text{V}$ , to GND		300		mA
Peak Output Current	$I_{op}$	$T_j=25^\circ\text{C}$		2.2		A

## L7800ML Series

T-58-11-13

**[L7809ML]****Recommended Operating Conditions at Ta=25°C**

			unit
Input Voltage	$V_{IN}$	12 to 25	V
Output Current	$I_{OUT}$	5 to 1000	mA

**Operating Characteristics at Ta=25°C,  $V_{IN}=16V, I_{OUT}=500mA$ ,**

See specified Test Circuit.

			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j=25^\circ C$	8.6	9.0	9.4	V
Line Regulation	$\Delta V_{oline}$	$T_j=25^\circ C, 11.5V \leq V_{IN} \leq 25V$		6.0	100	mV
		" $12V \leq V_{IN} \leq 20V$		2.0	50	mV
Load Regulation	$\Delta V_{oload}$	$T_j=25^\circ C, 5mA \leq I_{OUT} \leq 1.5A$			180	mV
		" $250mA \leq I_{OUT} \leq 750mA$			90	mV
Output Voltage	$V_{OUT}$	$11.5V \leq V_{IN} \leq 24V, 5mA \leq I_{OUT} \leq 1A$	8.5		9.5	V
Current Dissipation	$I_{CC}$	$T_j=25^\circ C$			8.0	mA
Current Dissipation	$\Delta I_{CCline}$	$11.5V \leq V_{IN} \leq 25V$			1.0	mA
Variation (Line)						
Current Dissipation	$\Delta I_{CCload}$	$5mA \leq I_{OUT} \leq 1A$			0.5	mA
Variation (Load)						
Output Noise Voltage	$V_{NO}$	$10Hz \leq f \leq 100kHz$		60		$\mu V$
Ripple Rejection	$R_{rej}$	$f=120Hz$	56	80		dB
		$12V \leq V_{IN} \leq 23V$				
		$T_j=25^\circ C$				
Minimum Input-Output	$V_{drop}$	$I_{OUT}=1A$		2.0		V
Voltage Drop						
Short Current	$I_{OS}$	$T_j=25^\circ C, V_{IN}=35V, to GND$		300		mA
Peak Output Current	$I_{op}$	$T_j=25^\circ C$		2.2		A

**[L7810ML]****Recommended Operating Conditions at Ta=25°C**

			unit
Input Voltage	$V_{IN}$	13 to 25	V
Output Current	$I_{OUT}$	5 to 1000	mA

**Operating Characteristics at Ta=25°C,  $V_{IN}=17V, I_{OUT}=500mA$ ,**

See specified Test Circuit.

			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j=25^\circ C$	9.6	10.0	10.4	V
Line Regulation	$\Delta V_{oline}$	$T_j=25^\circ C, 12.5V \leq V_{IN} \leq 25V$		7.0	100	mV
		" $13V \leq V_{IN} \leq 22V$		2.0	50	mV
Load Regulation	$\Delta V_{oload}$	$T_j=25^\circ C, 5mA \leq I_{OUT} \leq 1.5A$			200	mV
		" $250mA \leq I_{OUT} \leq 750mA$			100	mV
Output Voltage	$V_{OUT}$	$12.5V \leq V_{IN} \leq 25V, 5mA \leq I_{OUT} \leq 1A$	9.5		10.5	V
Current Dissipation	$I_{CC}$	$T_j=25^\circ C$			8.0	mA
Current Dissipation	$\Delta I_{CCline}$	$12.5V \leq V_{IN} \leq 25V$			1.0	mA
Variation (Line)						
Current Dissipation	$\Delta I_{CCload}$	$5mA \leq I_{OUT} \leq 1A$			0.5	mA
Variation (Load)						
Output Noise Voltage	$V_{NO}$	$10Hz \leq f \leq 100kHz$		65		$\mu V$
Ripple Rejection	$R_{rej}$	$f=120Hz$	55	80		dB
		$13V \leq V_{IN} \leq 25V$				
		$T_j=25^\circ C$				
Minimum Input-Output	$V_{drop}$	$I_{OUT}=1A$		2.0		V
Voltage Drop						
Short Current	$I_{OS}$	$T_j=25^\circ C, V_{IN}=35V, to GND$		300		mA
Peak Output Current	$I_{op}$	$T_j=25^\circ C$		2.2		A

L7800ML Series

T-58-11-13

[L7812ML]

Recommended Operating Conditions at Ta=25°C

Input Voltage	V <sub>IN</sub>	15 to 25	V
Output Current	I <sub>OUT</sub>	5 to 1000	mA

Operating Characteristics at Ta=25°C, V<sub>IN</sub>=19V, I<sub>OUT</sub>=500mA,

See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V <sub>OUT</sub>	T <sub>j</sub> =25°C	11.5	12.0	12.5	V
Line Regulation	ΔV <sub>oline</sub>	T <sub>j</sub> =25°C, 14.5V ≤ V <sub>IN</sub> ≤ 30V		8.0	100	mV
		" 16V ≤ V <sub>IN</sub> ≤ 25V		2.0	50	mV
Load Regulation	ΔV <sub>oload</sub>	T <sub>j</sub> =25°C, 5mA ≤ I <sub>OUT</sub> ≤ 1.5A			240	mV
		" 250mA ≤ I <sub>OUT</sub> ≤ 750mA			120	mV
Output Voltage	V <sub>OUT</sub>	14.5V ≤ V <sub>IN</sub> ≤ 27V, 5mA ≤ I <sub>OUT</sub> ≤ 1A	11.4		12.6	V
Current Dissipation	I <sub>CC</sub>	T <sub>j</sub> =25°C			8.0	mA
Current Dissipation	ΔI <sub>CCline</sub>	14.5V ≤ V <sub>IN</sub> ≤ 30V			1.0	mA
Variation (Line)						
Current Dissipation	ΔI <sub>CCload</sub>	5mA ≤ I <sub>OUT</sub> ≤ 1A			0.5	mA
Variation (Load)						
Output Noise Voltage	V <sub>NO</sub>	10Hz ≤ f ≤ 100kHz		75		μV
Ripple Rejection	R <sub>rej</sub>	f=120Hz	55	80		dB
		15V ≤ V <sub>IN</sub> ≤ 25V				
		T <sub>j</sub> =25°C				
Minimum Input-Output	V <sub>drop</sub>	I <sub>OUT</sub> =1A		2.0		V
Voltage Drop						
Short Current	I <sub>OS</sub>	T <sub>j</sub> =25°C, V <sub>IN</sub> =35V, to GND		300		mA
Peak Output Current	I <sub>op</sub>	T <sub>j</sub> =25°C		2.2		A

[L7815ML]

Recommended Operating Conditions at Ta=25°C

Input Voltage	V <sub>IN</sub>	18 to 30	V
Output Current	I <sub>OUT</sub>	5 to 1000	mA

Operating Characteristics at Ta=25°C, V<sub>IN</sub>=23V, I<sub>OUT</sub>=500mA,

See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V <sub>OUT</sub>	T <sub>j</sub> =25°C	14.4	15.0	15.6	V
Line Regulation	ΔV <sub>oline</sub>	T <sub>j</sub> =25°C, 17.5V ≤ V <sub>IN</sub> ≤ 30V		10.0	100	mV
		" 19V ≤ V <sub>IN</sub> ≤ 30V		3.0	50	mV
Load Regulation	ΔV <sub>oload</sub>	T <sub>j</sub> =25°C, 5mA ≤ I <sub>OUT</sub> ≤ 1.5A			300	mV
		" 250mA ≤ I <sub>OUT</sub> ≤ 750mA			150	mV
Output Voltage	V <sub>OUT</sub>	17.5V ≤ V <sub>IN</sub> ≤ 30V, 5mA ≤ I <sub>OUT</sub> ≤ 1A	14.25		15.75	V
Current Dissipation	I <sub>CC</sub>	T <sub>j</sub> =25°C			8.0	mA
Current Dissipation	ΔI <sub>CCline</sub>	17.5V ≤ V <sub>IN</sub> ≤ 30V			1.0	mA
Variation (Line)						
Current Dissipation	ΔI <sub>CCload</sub>	5mA ≤ I <sub>OUT</sub> ≤ 1A			0.5	mA
Variation (Load)						
Output Noise Voltage	V <sub>NO</sub>	10Hz ≤ f ≤ 100kHz		90		μV
Ripple Rejection	R <sub>rej</sub>	f=120Hz	54	70		dB
		18.5V ≤ V <sub>IN</sub> ≤ 28.5V				
		T <sub>j</sub> =25°C				
Minimum Input-Output	V <sub>drop</sub>	I <sub>OUT</sub> =1A		2.0		V
Voltage Drop						
Short Current	I <sub>OS</sub>	T <sub>j</sub> =25°C, V <sub>IN</sub> =35V, to GND		300		mA
Peak Output Current	I <sub>op</sub>	T <sub>j</sub> =25°C		2.1		A

## L7800ML Series

T-58-11-13

**[L7818ML]****Recommended Operating Conditions at Ta=25°C**

			unit
Input Voltage	$V_{IN}$	21 to 33	V
Output Current	$I_{OUT}$	5 to 1000	mA

**Operating Characteristics at Ta=25°C,  $V_{IN}=27V$ ,  $I_{OUT}=500mA$ ,**

See specified Test Circuit.			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j=25^\circ C$	17.3	18.0	18.7	V
Line Regulation	$\Delta V_{oline}$	$T_j=25^\circ C, 21V \leq V_{IN} \leq 35V$		10.0	100	mV
		" $22V \leq V_{IN} \leq 35V$		5.0	50	mV
Load Regulation	$\Delta V_{oload}$	$T_j=25^\circ C, 5mA \leq I_{OUT} \leq 1.5A$			360	mV
		" $250mA \leq I_{OUT} \leq 750mA$			180	mV
Output Voltage	$V_{OUT}$	$21V \leq V_{IN} \leq 33V, 5mA \leq I_{OUT} \leq 1A$	17.1		18.9	V
Current Dissipation	$I_{CC}$	$T_j=25^\circ C$			8.0	mA
Current Dissipation Variation (Line)	$\Delta I_{CCline}$	$21V \leq V_{IN} \leq 33V$			1.0	mA
Current Dissipation Variation (Load)	$\Delta I_{CCload}$	$5mA \leq I_{OUT} \leq 1A$			0.5	mA
Output Noise Voltage	$V_{NO}$	$10Hz \leq f \leq 100kHz$		100		$\mu V$
Ripple Rejection	$R_{rej}$	$f=120Hz$	53	70		dB
		$22V \leq V_{IN} \leq 33V$ $T_j=25^\circ C$				
Minimum Input-Output Voltage Drop	$V_{drop}$	$I_{OUT}=1A$		2.0		V
Short Current	$I_{OS}$	$T_j=25^\circ C, V_{IN}=35V, to GND$		300		mA
Peak Output Current	$I_{op}$	$T_j=25^\circ C$		2.1		A

**[L7820ML]****Recommended Operating Conditions at Ta=25°C**

			unit
Input Voltage	$V_{IN}$	23 to 35	V
Output Current	$I_{OUT}$	5 to 1000	mA

**Operating Characteristics at Ta=25°C,  $V_{IN}=29V$ ,  $I_{OUT}=500mA$ ,**

See specified Test Circuit.			min	typ	max	unit
Output Voltage	$V_{OUT}$	$T_j=25^\circ C$	19.2	20.0	20.8	V
Line Regulation	$\Delta V_{oline}$	$T_j=25^\circ C, 23V \leq V_{IN} \leq 35V$		10.0	100	mV
		" $24V \leq V_{IN} \leq 35V$		5.0	50	mV
Load Regulation	$\Delta V_{oload}$	$T_j=25^\circ C, 5mA \leq I_{OUT} \leq 1.5A$			400	mV
		" $250mA \leq I_{OUT} \leq 750mA$			200	mV
Output Voltage	$V_{OUT}$	$23V \leq V_{IN} \leq 35V, 5mA \leq I_{OUT} \leq 1A$	19.0		21.0	V
Current Dissipation	$I_{CC}$	$T_j=25^\circ C$			8.0	mA
Current Dissipation Variation (Line)	$\Delta I_{CCline}$	$23V \leq V_{IN} \leq 35V$			1.0	mA
Current Dissipation Variation (Load)	$\Delta I_{CCload}$	$5mA \leq I_{OUT} \leq 1A$			0.5	mA
Output Noise Voltage	$V_{NO}$	$10Hz \leq f \leq 100kHz$		110		$\mu V$
Ripple Rejection	$R_{rej}$	$f=120Hz$	53	70		dB
		$24V \leq V_{IN} \leq 34V$ $T_j=25^\circ C$				
Minimum Input-Output Voltage Drop	$V_{drop}$	$I_{OUT}=1A$		2.0		V
Short Current	$I_{OS}$	$T_j=25^\circ C, V_{IN}=35V, to GND$		300		mA
Peak Output Current	$I_{op}$	$T_j=25^\circ C$		2.1		A

L7800ML Series

T-58-11-13

[L7824ML]

Recommended Operating Conditions at Ta=25°C

Parameter	Symbol	Value	unit
Input Voltage	V <sub>IN</sub>	27 to 35	V
Output Current	I <sub>OUT</sub>	5 to 1000	mA

Operating Characteristics at Ta=25°C, V<sub>IN</sub>=33V, I<sub>OUT</sub>=500mA, See specified Test Circuit.

Parameter	Symbol	Conditions	min	typ	max	unit
Output Voltage	V <sub>OUT</sub>	T <sub>j</sub> =25°C	23.0	24.0	25.0	V
Line Regulation	ΔV <sub>oline</sub>	T <sub>j</sub> =25°C, 27V ≤ V <sub>IN</sub> ≤ 35V		10.0	100	mV
		" 28V ≤ V <sub>IN</sub> ≤ 35V		5.0	50	mV
Load Regulation	ΔV <sub>oload</sub>	T <sub>j</sub> =25°C, 5mA ≤ I <sub>OUT</sub> ≤ 1.5A			480	mV
		" 250mA ≤ I <sub>OUT</sub> ≤ 750mA			240	mV
Output Voltage	V <sub>OUT</sub>	27V ≤ V <sub>IN</sub> ≤ 35V, 5mA ≤ I <sub>OUT</sub> ≤ 1A	22.8		25.2	V
Current Dissipation	I <sub>CC</sub>	T <sub>j</sub> =25°C			8.0	mA
Current Dissipation Variation (Line)	ΔI <sub>CCline</sub>	27V ≤ V <sub>IN</sub> ≤ 35V			1.0	mA
Current Dissipation Variation (Load)	ΔI <sub>CCload</sub>	5mA ≤ I <sub>OUT</sub> ≤ 1A			0.5	mA
Output Noise Voltage	V <sub>NO</sub>	10Hz ≤ f ≤ 100kHz			170	μV
Ripple Rejection	R <sub>rej</sub>	f=120Hz	50	70		dB
		28V ≤ V <sub>IN</sub> ≤ 35V				
		T <sub>j</sub> =25°C				
Minimum Input-Output Voltage Drop	V <sub>drop</sub>	I <sub>OUT</sub> =1A		2.0		V
Short Current	I <sub>OS</sub>	T <sub>j</sub> =25°C, V <sub>IN</sub> =35V, to GND			300	mA
Peak Output Current	I <sub>op</sub>	T <sub>j</sub> =25°C			2.1	A

Test Circuit (Common to L7800ML Series)

