

L78N00 Series



3038A

Monolithic Linear IC

5 to 24V 0.5A 3-Pin Voltage Regulator

©1166C

Use

- General-purpose voltage regulators

Features

- Output voltage

L78N05: 5V	L78N06: 6V	L78N07: 7V	L78N08: 8V
L78N09: 9V	L78N10: 10V	L78N12: 12V	L78N15: 15V
L78N18: 18V	L78N20: 20V	L78N24: 24V	
- 500mA output
- On-chip thermal protector
- On-chip overcurrent limiter
- On-chip ASO protector
- The SEP-3H package facilitates easy mounting and thermal design as in case of transistor.

[Common to L78N00 series]

Maximum Ratings at Ta=25°C		unit	
Maximum Supply Voltage	V _{CC} max	Pin 1	35 V
Allowable Power Dissipation	Pd max		1.2 W
Operating Temperature	Topg		-20 to +80 °C
Storage Temperature	Tstg		-40 to +150 °C

[L78N05]

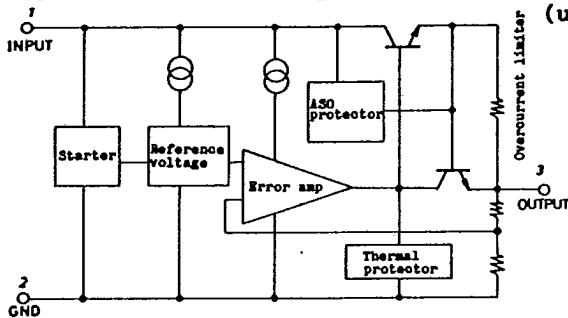
Recommended Operating Conditions at Ta=25°C		unit	
Input Voltage	V _{IN}	7.5 to 20	V
Output Current	I _{OUT}	5 to 500	mA

Operating Characteristics at Ta=25°C, V_{IN}=10V, I_{OUT}=350mA, See specified Test Circuit.

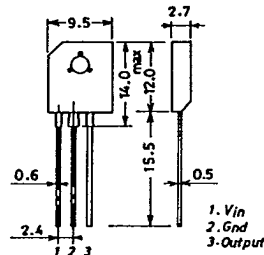
			min	typ	max	unit
Output Voltage	V _{OUT}	Tj=25°C	4.8	5.0	5.2	V
Line Regulation	ΔV _{oline}	Tj=25°C, 7V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA		3.0	50	mV
		Tj=25°C, 8V ≤ V _{IN} ≤ 20V, I _{OUT} =200mA	1.0	25	mV	
Load Regulation	ΔV _{oload}	Tj=25°C, 5mA ≤ I _{OUT} ≤ 500mA		100	mV	
		Tj=25°C, 5mA ≤ I _{OUT} ≤ 200mA		50	mV	

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Equivalent Circuit Diagram



Case Outline 3038A-S3CTR (unit:mm)



8017TA/8055MW/8062KI, TS No.1166-1/8

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			min	typ	max	unit
Output Voltage	V_{OUT}	$7V \leq V_{IN} \leq 20V,$ $5mA \leq I_{OUT} \leq 350mA$ $T_j = 25^\circ C$	4.75		5.25	V
Current Dissipation	I_{CC}	$T_j = 25^\circ C$		4.5	6.0	mA
Current Dissipation Variation (Line)	ΔI_{CCline}	$8V \leq V_{IN} \leq 25V,$ $I_{OUT} = 200mA$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5mA \leq I_{OUT} \leq 350mA$			0.5	mA
Output Noise Voltage	V_{NO}	$10Hz \leq f \leq 100kHz$		40		μV
Ripple Rejection	R_{rej}	$f = 120Hz$ $I_{OUT} = 100mA$ $(8V \leq V_{IN} \leq 19V$ $I_{OUT} = 300mA$ $T_j = 25^\circ C$	62		80	dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT} = 350mA$		2.0		V
Short Current	I_{OS}	$T_j = 25^\circ C, V_{IN} = 35V, to GND$		300		mA
Peak Output Current	I_{op}	$T_j = 25^\circ C$		0.7		A

[L78N06]

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 500	mA

Operating Characteristics at $T_a = 25^\circ C, V_{IN} = 11V, I_{OUT} = 350mA,$
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	ΔV_{oline}	$T_j = 25^\circ C, 8V \leq V_{IN} \leq 25V,$ $I_{OUT} = 200mA$		5.0	60	mV
Load Regulation	ΔV_{oload}	$T_j = 25^\circ C, 9V \leq V_{IN} \leq 20V,$ $I_{OUT} = 200mA$		1.5	30	mV
Load Regulation	ΔV_{oload}	$T_j = 25^\circ C, 5mA \leq I_{OUT} \leq 500mA$			120	mV
Load Regulation	ΔV_{oload}	$T_j = 25^\circ C, 5mA \leq I_{OUT} \leq 200mA$			60	mV
Output Voltage	V_{OUT}	$8V \leq V_{IN} \leq 21V,$ $5mA \leq I_{OUT} \leq 350mA$ $T_j = 25^\circ C$	5.7		6.3	V
Current Dissipation	I_{CC}	$T_j = 25^\circ C$		4.5	6.0	mA
Current Dissipation Variation (Line)	ΔI_{CCline}	$9V \leq V_{IN} \leq 25V,$ $I_{OUT} = 200mA$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5mA \leq I_{OUT} \leq 350mA$			0.5	mA
Output Noise Voltage	V_{NO}	$10Hz \leq f \leq 100kHz$		45		μV
Ripple Rejection	R_{rej}	$f = 120Hz$ $I_{OUT} = 100mA$ $(9V \leq V_{IN} \leq 20V$ $I_{OUT} = 300mA$ $T_j = 25^\circ C$	59		80	dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT} = 350mA$		2.0		V
Short Current	I_{OS}	$T_j = 25^\circ C, V_{IN} = 35V, to GND$		300		mA
Peak Output Current	I_{op}	$T_j = 25^\circ C$		0.7		A

[L78N07]

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 500	mA

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Operating Characteristics at Ta=25°C, V_{IN}=12V, I_{OUT}=350mA,
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V _{OUT}	T _j =25°C	6.72	7.0	7.28	V
Line Regulation	ΔV _{oline}	T _j =25°C, 9V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA		6.0	60	mV
		T _j =25°C, 10V ≤ V _{IN} ≤ 20V, I _{OUT} =200mA		2.0	30	mV
Load Regulation	ΔV _{oload}	T _j =25°C, 5mA ≤ I _{OUT} ≤ 500mA			140	mV
		T _j =25°C, 5mA ≤ I _{OUT} ≤ 200mA			70	mV
Output Voltage	V _{OUT}	9V ≤ V _{IN} ≤ 22V, 5mA ≤ I _{OUT} ≤ 350mA	6.6		7.4	V
Current Dissipation	I _{CC}	T _j =25°C	4.6		6.0	mA
Current Dissipation Variation (Line)	ΔI _{CCline}	10V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA			0.8	mA
Current Dissipation Variation (Load)	ΔI _{CCload}	5mA ≤ I _{OUT} ≤ 350mA			0.5	mA
Output Noise Voltage	V _{NO}	10Hz ≤ f ≤ 100kHz		48		μV
Ripple Rejection	R _{rej}	f=120Hz I _{OUT} =100mA	58			dB
		10V ≤ V _{IN} ≤ 21V I _{OUT} =300mA	58	80		dB
Minimum Input-Output Voltage Drop	V _{drop}	I _{OUT} =350mA	2.0			V
Short Current	I _{OS}	T _j =25°C, V _{IN} =35V, to GND	300			mA
Peak Output Current	I _{op}	T _j =25°C	0.7			A

[L78N08]

Recommended Operating Conditions at Ta=25°C

			unit
Input Voltage	V _{IN}	10.5 to 23	V
Output Current	I _{OUT}	5 to 500	mA

Operating Characteristics at Ta=25°C, V_{IN}=15V, I_{OUT}=350mA,
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V _{OUT}	T _j =25°C	7.7	8.0	8.3	V
Line Regulation	ΔV _{oline}	T _j =25°C, 10.5V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA		6.0	60	mV
		T _j =25°C, 11V ≤ V _{IN} ≤ 20V, I _{OUT} =200mA		2.0	30	mV
Load Regulation	ΔV _{oload}	T _j =25°C, 5mA ≤ I _{OUT} ≤ 500mA			160	mV
		T _j =25°C, 5mA ≤ I _{OUT} ≤ 200mA			80	mV
Output Voltage	V _{OUT}	10.5V ≤ V _{IN} ≤ 23V, 5mA ≤ I _{OUT} ≤ 350mA	7.6		8.4	V
Current Dissipation	I _{CC}	T _j =25°C	4.6		6.0	mA
Current Dissipation Variation (Line)	ΔI _{CCline}	11V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA			0.8	mA
Current Dissipation Variation (Load)	ΔI _{CCload}	5mA ≤ I _{OUT} ≤ 350mA			0.5	mA
Output Noise Voltage	V _{NO}	10Hz ≤ f ≤ 100kHz		50		μV
Ripple Rejection	R _{rej}	f=120Hz I _{OUT} =100mA	56			dB
		11.5V ≤ V _{IN} ≤ 22V I _{OUT} =300mA	56	80		dB
Minimum Input-Output Voltage Drop	V _{drop}	I _{OUT} =350mA	2.0			V
Short Current	I _{OS}	T _j =25°C, V _{IN} =35V, to GND	300			mA
Peak Output Current	I _{op}	T _j =25°C	0.7			A

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[L78N09]

Recommended Operating Conditions at Ta=25°C

Input Voltage	V _{IN}	12 to 25	unit
Output Current	I _{OUT}	5 to 500	V mA

Operating Characteristics at Ta=25°C, V_{IN}=16V, I_{OUT}=350mA,
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V _{OUT}	Tj=25°C	8.6	9.0	9.4	V
Line Regulation	ΔV _{oline}	Tj=25°C, 11.5V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA		6.0	100	mV
Load Regulation	ΔV _{oload}	Tj=25°C, 12V ≤ V _{IN} ≤ 20V, I _{OUT} =200mA		2.0	50	mV
Output Voltage	V _{OUT}	Tj=25°C, 5mA ≤ I _{OUT} ≤ 500mA			180	mV
Current Dissipation	I _{CC}	Tj=25°C, 5mA ≤ I _{OUT} ≤ 200mA			90	mV
Current Dissipation	ΔI _{CCline}	11.5V ≤ V _{IN} ≤ 24V, 5mA ≤ I _{OUT} ≤ 350mA	8.5		9.5	V
Variation (Line)	ΔI _{CCload}	Tj=25°C		4.6	6.0	mA
Current Dissipation		12.5V ≤ V _{IN} ≤ 25V, I _{OUT} ≤ 200mA			0.8	mA
Variation (Load)		5mA ≤ I _{OUT} ≤ 350mA			0.5	mA
Output Noise Voltage	V _{NO}	10Hz ≤ f ≤ 100kHz			60	uV
Ripple Rejection	R _{rej}	f=120Hz I _{OUT} =100mA	56			dB
		(12V ≤ V _{IN} ≤ 23V I _{OUT} =300mA	56	80		dB
		Tj=25°C				
Minimum Input-Output	V _{drop}	I _{OUT} =350mA			2.0	V
Voltage Drop						
Short Current	I _{OS}	Tj=25°C, V _{IN} =35V, to GND			300	mA
Peak Output Current	I _{op}	Tj=25°C			0.7	A

[L78N10]

Recommended Operating Conditions at Ta=25°C

Input Voltage	V _{IN}	13 to 25	unit
Output Current	I _{OUT}	5 to 500	V mA

Operating Characteristics at Ta=25°C, V_{IN}=17V, I_{OUT}=350mA,
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V _{OUT}	Tj=25°C	9.6	10.0	10.4	V
Line Regulation	ΔV _{oline}	Tj=25°C, 12.5V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA		7.0	100	mV
Load Regulation	ΔV _{oload}	Tj=25°C, 13V ≤ V _{IN} ≤ 22V, I _{OUT} =200mA		2.0	50	mV
Output Voltage	V _{OUT}	Tj=25°C, 5mA ≤ I _{OUT} ≤ 500mA			200	mV
Current Dissipation	I _{CC}	Tj=25°C, 5mA ≤ I _{OUT} ≤ 200mA			100	mV
Current Dissipation	ΔI _{CCline}	12.5V ≤ V _{IN} ≤ 25V, 5mA ≤ I _{OUT} ≤ 350mA	9.5		10.5	V
Variation (Line)	ΔI _{CCload}	Tj=25°C		4.6	6.0	mA
Current Dissipation		13.5V ≤ V _{IN} ≤ 25V, I _{OUT} =200mA			0.8	mA
Variation (Load)		5mA ≤ I _{OUT} ≤ 350mA			0.5	mA
Output Noise Voltage	V _{NO}	10Hz ≤ f ≤ 100kHz			65	uV
Ripple Rejection	R _{rej}	f=120Hz I _{OUT} =100mA	55			dB
		(13V ≤ V _{IN} ≤ 25V I _{OUT} =300mA	55	80		dB
		Tj=25°C				

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			min	typ	max	unit
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT}=350mA$		2.0		V
Short Current	I_{OS}	$T_j=25^{\circ}C, V_{IN}=35V, to GND$		300		mA
Peak Output Current	I_{op}	$T_j=25^{\circ}C$		0.7		A

[L78N12]

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

			unit
Input Voltage	V_{IN}	15 to 25	V
Output Current	I_{OUT}	5 to 500	mA

Operating Characteristics at $T_a=25^{\circ}C, V_{IN}=19V, I_{OUT}=350mA$,
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V_{OUT}	$T_j=25^{\circ}C$	11.5	12.0	12.5	V
Line Regulation	ΔV_{oline}	$T_j=25^{\circ}C, 14.5V \leq V_{IN} \leq 30V, I_{OUT}=200mA$		8.0	100	mV
Load Regulation	ΔV_{oload}	$T_j=25^{\circ}C, 16V \leq V_{IN} \leq 25V, I_{OUT}=200mA$		2.0	50	mV
Output Voltage	V_{OUT}	$T_j=25^{\circ}C, 5mA \leq I_{OUT} \leq 500mA$ $T_j=25^{\circ}C, 5mA \leq I_{OUT} \leq 200mA$ $14.5V \leq V_{IN} \leq 27V, 5mA \leq I_{OUT} \leq 350mA$	11.4		12.6	V
Current Dissipation	I_{CC}	$T_j=25^{\circ}C$		4.8	6.0	mA
Current Dissipation Variation (Line)	ΔI_{CCline}	$15V \leq V_{IN} \leq 30V, I_{OUT}=200mA$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5mA \leq I_{OUT} \leq 350mA$			0.5	mA
Output Noise Voltage	V_{NO}	$10Hz \leq f \leq 100kHz$		75		μV
Ripple Rejection	R_{rej}	$f=120Hz$ $15V \leq V_{IN} \leq 25V, T_j=25^{\circ}C$ $I_{OUT}=100mA$ $I_{OUT}=300mA$	55	80		dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT}=350mA$		2.0		V
Short Current	I_{OS}	$T_j=25^{\circ}C, V_{IN}=35V, to GND$		300		mA
Peak Output Current	I_{op}	$T_j=25^{\circ}C$		0.7		A

[L78N15]

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

			unit
Input Voltage	V_{IN}	18 to 30	V
Output Current	I_{OUT}	5 to 500	mA

Operating Characteristics at $T_a=25^{\circ}C, V_{IN}=23V, I_{OUT}=350mA$,
See specified Test Circuit.

			min	typ	max	unit
Output Voltage	V_{OUT}	$T_j=25^{\circ}C$	14.4	15.0	15.6	V
Line Regulation	ΔV_{oline}	$T_j=25^{\circ}C, 17.5V \leq V_{IN} \leq 30V, I_{OUT}=200mA$		10.0	100	mV
Load Regulation	ΔV_{oload}	$T_j=25^{\circ}C, 19V \leq V_{IN} \leq 30V, I_{OUT}=200mA$		3.0	50	mV
Output Voltage	V_{OUT}	$T_j=25^{\circ}C, 5mA \leq I_{OUT} \leq 500mA$ $T_j=25^{\circ}C, 5mA \leq I_{OUT} \leq 200mA$ $17.5V \leq V_{IN} \leq 30V, 5mA \leq I_{OUT} \leq 350mA$	14.25		15.75	V
Current Dissipation	I_{CC}	$T_j=25^{\circ}C$		4.8	6.0	mA

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			min	typ	max	unit
Current Dissipation Variation (Line)	ΔI_{CCline}	$17.5V \leq V_{IN} \leq 30V,$ $I_{OUT} = 200mA$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5mA \leq I_{OUT} \leq 350mA$			0.5	mA
Output Noise Voltage	V_{NO}	$10Hz \leq f \leq 100kHz$			90	μV
Ripple Rejection	R_{rej}	$f = 120Hz$ $18.5V \leq V_{IN} \leq 28.5V$ $T_j = 25^\circ C$	$I_{OUT} = 100mA$ $I_{OUT} = 300mA$	54 54	70	dB dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT} = 350mA$			2.0	V
Short Current	I_{OS}	$T_j = 25^\circ C, V_{IN} = 35V, \text{ to GND}$			300	mA
Peak Output Current	I_{op}	$T_j = 25^\circ C$			0.7	A

[L78N18]

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

			unit
Input Voltage	V_{IN}	21 to 33	V
Output Current	I_{OUT}	5 to 500	mA

Operating Characteristics at $T_a = 25^\circ C, V_{IN} = 27V, I_{OUT} = 350mA,$
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	ΔV_{oline}	$T_j = 25^\circ C, 21V \leq V_{IN} \leq 35V,$ $I_{OUT} = 200mA$ $T_j = 25^\circ C, 22V \leq V_{IN} \leq 35V,$ $I_{OUT} = 200mA$		10.0	100	mV
Load Regulation	ΔV_{oload}	$T_j = 25^\circ C, 5mA \leq I_{OUT} \leq 500mA$ $T_j = 25^\circ C, 5mA \leq I_{OUT} \leq 200mA$			360 180	mV mV
Output Voltage	V_{OUT}	$21V \leq V_{IN} \leq 33V,$ $5mA \leq I_{OUT} \leq 350mA$	17.1		18.9	V
Current Dissipation	I_{CC}	$T_j = 25^\circ C$		4.9	6.0	mA
Current Dissipation Variation (Line)	ΔI_{CCline}	$21V \leq V_{IN} \leq 33V,$ $I_{OUT} = 200mA$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5mA \leq I_{OUT} \leq 350mA$			0.5	mA
Output Noise Voltage	V_{NO}	$10Hz \leq f \leq 100kHz$			100	μV
Ripple Rejection	R_{rej}	$f = 120Hz$ $22V \leq V_{IN} \leq 33V,$ $T_j = 25^\circ C$	$I_{OUT} = 100mA$ $I_{OUT} = 300mA$	53 53	70	dB dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT} = 350mA$			2.0	V
Short Current	I_{OS}	$T_j = 25^\circ C, V_{IN} = 35V, \text{ to GND}$			300	mA
Peak Output Current	I_{op}	$T_j = 25^\circ C$			0.7	A

[L78N20]

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

			unit
Input Voltage	V_{IN}	23 to 35	V
Output Current	I_{OUT}	5 to 500	mA

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Operating Characteristics at $T_a=25^\circ\text{C}$, $V_{IN}=29\text{V}$, $I_{OUT}=350\text{mA}$, See specified Test Circuit.			min	typ	max	unit
Output Voltage	V_{OUT}	$T_j=25^\circ\text{C}$	19.2	20.0	20.8	V
Line Regulation	ΔV_{oline}	$T_j=25^\circ\text{C}$, $23\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=200\text{mA}$	10.0	100		mV
		$T_j=25^\circ\text{C}$, $24\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=200\text{mA}$		5.0	50	mV
Load Regulation	ΔV_{oload}	$T_j=25^\circ\text{C}$, $5\text{mA} \leq I_{OUT} \leq 500\text{mA}$ $T_j=25^\circ\text{C}$, $5\text{mA} \leq I_{OUT} \leq 200\text{mA}$			400	mV
Output Voltage	V_{OUT}	$23\text{V} \leq V_{IN} \leq 35\text{V}$, $5\text{mA} \leq I_{OUT} \leq 350\text{mA}$	19.0		21.0	V
Current Dissipation	I_{CC}	$T_j=25^\circ\text{C}$	4.9	6.0		mA
Current Dissipation Variation (Line)	ΔI_{CCline}	$23\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=200\text{mA}$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5\text{mA} \leq I_{OUT} \leq 350\text{mA}$			0.5	mA
Output Noise Voltage	V_{NO}	$10\text{Hz} \leq f \leq 100\text{kHz}$			110	μV
Ripple Rejection	R_{rej}	$f=120\text{Hz}$, $I_{OUT}=100\text{mA}$ $24\text{V} \leq V_{IN} \leq 34\text{V}$, $I_{OUT}=300\text{mA}$ $T_j=25^\circ\text{C}$	53	70		dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT}=350\text{mA}$			2.0	V
Short Current	I_{OS}	$T_j=25^\circ\text{C}$, $V_{IN}=35\text{V}$, to GND			300	mA
Peak Output Current	I_{op}	$T_j=25^\circ\text{C}$			0.7	A

[L78N24]

Recommended Operating Conditions at $T_a=25^\circ\text{C}$		unit
Input Voltage	V_{IN}	27 to 35 V
Output Current	I_{OUT}	5 to 500 mA

Operating Characteristics at $T_a=25^\circ\text{C}$, $V_{IN}=33\text{V}$, $I_{OUT}=350\text{mA}$, See specified Test Circuit.			min	typ	max	unit
Output Voltage	V_{OUT}	$T_j=25^\circ\text{C}$	23.0	24.0	25.0	V
Line Regulation	ΔV_{oline}	$T_j=25^\circ\text{C}$, $27\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=200\text{mA}$	10.0	100		mV
		$T_j=25^\circ\text{C}$, $28\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=200\text{mA}$		5.0	50	mV
Load Regulation	ΔV_{oload}	$T_j=25^\circ\text{C}$, $5\text{mA} \leq I_{OUT} \leq 500\text{mA}$ $T_j=25^\circ\text{C}$, $5\text{mA} \leq I_{OUT} \leq 200\text{mA}$			480	mV
Output Voltage	V_{OUT}	$27\text{V} \leq V_{IN} \leq 35\text{V}$, $5\text{mA} \leq I_{OUT} \leq 350\text{mA}$	22.8		25.2	V
Current Dissipation	I_{CC}	$T_j=25^\circ\text{C}$	5.0	6.0		mA
Current Dissipation Variation (Line)	ΔI_{CCline}	$27\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=200\text{mA}$			0.8	mA
Current Dissipation Variation (Load)	ΔI_{CCload}	$5\text{mA} \leq I_{OUT} \leq 350\text{mA}$			0.5	mA
Output Noise Voltage	V_{NO}	$10\text{Hz} \leq f \leq 100\text{kHz}$			170	μV
Ripple Rejection	R_{rej}	$f=120\text{Hz}$, $I_{OUT}=100\text{mA}$ $28\text{V} \leq V_{IN} \leq 35\text{V}$, $I_{OUT}=300\text{mA}$ $T_j=25^\circ\text{C}$	50	70		dB
Minimum Input-Output Voltage Drop	V_{drop}	$I_{OUT}=350\text{mA}$			2.0	V
Short Current	I_{OS}	$T_j=25^\circ\text{C}$, $V_{IN}=35\text{V}$, to GND			300	mA
Peak Output Current	I_{op}	$T_j=25^\circ\text{C}$			0.7	A

L78N00 Series

T-58-11-13

Specified Test Circuit (Common to L78N00 series)

