

# MC78LXXA/LM78LXXA/MC78L05AA

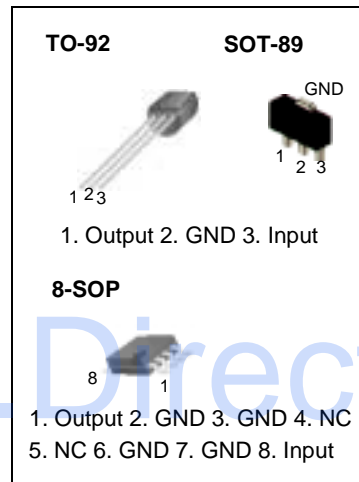
## 3-Terminal 0.1A Positive Voltage Regulator

### Features

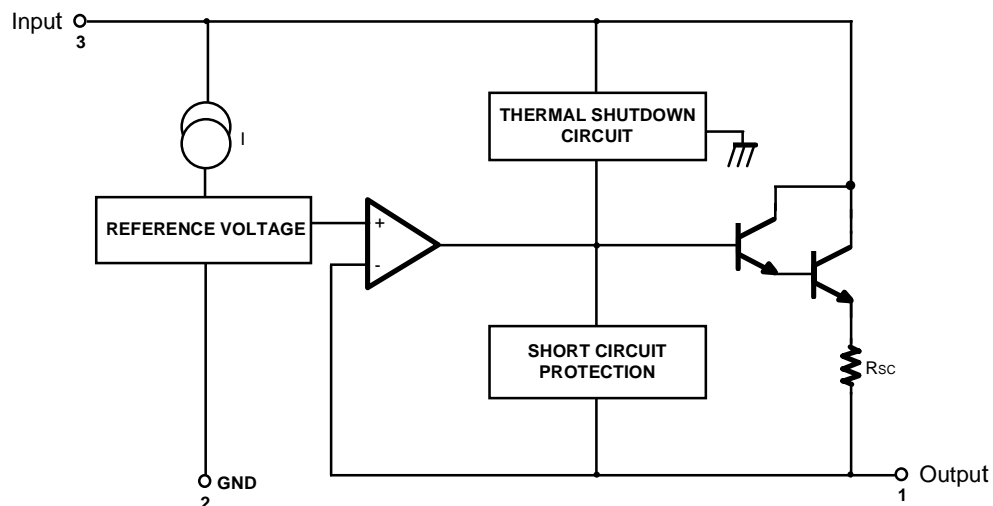
- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

### Description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply current up to 100mA.



### Internal Block Diagram



## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage (for $V_O = 5V, 8V$ ) (for $V_O = 12V$ to $18V$ ) (for $V_O = 24V$ )	$V_I$	30 35 40	V V V
Operating Junction Temperature Range	$T_J$	0 ~ +150	°C
Storage Temperature Range	$T_{STG}$	-65 ~ +150	°C

## Electrical Characteristics(MC78L05A/LM78L05A)

( $V_I = 10V$ ,  $I_O = 40mA$ ,  $0^\circ C \leq T_J \leq 125^\circ C$ ,  $C_I = 0.33\mu F$ ,  $C_O = 0.1\mu F$ , unless otherwise specified. (Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	$V_O$	$T_J = 25^\circ C$	4.8	5.0	5.2	V	
Line Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$7V \leq V_I \leq 20V$	-	8	150	mV
			$8V \leq V_I \leq 20V$	-	6	100	mV
Load Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$1mA \leq I_O \leq 100mA$	-	11	60	mV
			$1mA \leq I_O \leq 40mA$	-	5.0	30	mV
Output Voltage	$V_O$	$7V \leq V_I \leq 20V$	$1mA \leq I_O \leq 40mA$	-	-	5.25	V
		$7V \leq V_I \leq V_{MAX}$ (Note 2)	$1mA \leq I_O \leq 70mA$	4.75	-	5.25	V
Quiescent Current	$I_Q$	$T_J = 25^\circ C$	-	2.0	5.5	mA	
Quiescent Current Change	With Line	$\Delta I_Q$	$8V \leq V_I \leq 20V$	-	-	1.5	mA
	With Load	$\Delta I_Q$	$1mA \leq I_O \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	$V_N$	$T_A = 25^\circ C$ , $10Hz \leq f \leq 100kHz$	-	40	-	$\mu V/V_O$	
Temperature Coefficient of $V_O$	$\Delta V_O/\Delta T$	$I_O = 5mA$	-	-0.65	-	$mV/^\circ C$	
Ripple Rejection	RR	$f = 120Hz$ , $8V \leq V_I \leq 18V$ , $T_J = 25^\circ C$	41	80	-	dB	
Dropout Voltage	$V_D$	$T_J = 25^\circ C$	-	1.7	-	V	

### Note:

- The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
- Power dissipation  $P_D \leq 0.75W$ .

**Electrical Characteristics(MC78L08A)** (Continued)

( $V_I = 14V$ ,  $I_O = 40mA$ ,  $0^\circ C \leq T_J \leq 125^\circ C$ ,  $C_I = 0.33\mu F$ ,  $C_O = 0.1\mu F$ , unless otherwise specified. (Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	$V_O$	$T_J = 25^\circ C$	7.7	8.0	8.3	V	
Line Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$10.5V \leq V_I \leq 23V$	-	10	175	mV
			$11V \leq V_I \leq 23V$	-	8	125	mV
Load Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$1mA \leq I_O \leq 100mA$	-	15	80	mV
			$1mA \leq I_O \leq 40mA$	-	8.0	40	mV
Output Voltage	$V_O$	$10.5V \leq V_I \leq 23V$	$1mA \leq I_O \leq 40mA$	7.6	-	8.4	V
		$10.5V \leq V_I \leq V_{MAX}$ (Note 2)	$1mA \leq I_O \leq 70mA$	7.6	-	8.4	V
Quiescent Current	$I_Q$	$T_J = 25^\circ C$	-	2.0	5.5	mA	
Quiescent Current Change	With Line	$\Delta I_Q$	$11V \leq V_I \leq 23V$	-	-	1.5	mA
	With Load	$\Delta I_Q$	$1mA \leq I_O \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	$V_N$	$T_A = 25^\circ C$ , $10Hz \leq f \leq 100kHz$	-	60	-	$\mu V/V_O$	
Temperature Coefficient of $V_O$	$\Delta V_O/\Delta T$	$I_O = 5mA$	-	-0.8	-	$mV/^\circ C$	
Ripple Rejection	RR	$f = 120Hz$ , $11V \leq V_I \leq 21V$ , $T_J = 25^\circ C$	39	70	-	dB	
Dropout Voltage	$V_D$	$T_J = 25^\circ C$	-	1.7	-	V	

**Note:**

1. The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
2. Power dissipation  $P_D \leq 0.75W$ .

**Electrical Characteristics(MC78L12A/LM78L12A)** (Continued)

( $V_I = 19V$ ,  $I_O = 40mA$ ,  $0^\circ C \leq T_J \leq 125^\circ C$ ,  $C_I = 0.33 \mu F$ ,  $C_O = 0.1 \mu F$ , unless otherwise specified. (Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	$V_O$	$T_J = 25^\circ C$	11.5	12	12.5	V	
Line Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$14.5V \leq V_I \leq 27V$	-	20	250	mV
			$16V \leq V_I \leq 27V$	-	15	200	mV
Load Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$1mA \leq I_O \leq 100mA$	-	20	100	mV
			$1mA \leq I_O \leq 40mA$	-	10	50	mV
Output Voltage	$V_O$	$14.5V \leq V_I \leq 27V$	$1mA \leq I_O \leq 40mA$	11.4	-	12.6	V
		$14.5V \leq V_I \leq V_{MAX}$ (Note 2)	$1mA \leq I_O \leq 70mA$	11.4	-	12.6	V
Quiescent Current	$I_Q$	$T_J = 25^\circ C$	-	2.1	6.0	mA	
Quiescent Current Change	With Line	$\Delta I_Q$	$16V \leq V_I \leq 27V$	-	-	1.5	mA
	With Load	$\Delta I_Q$	$1mA \leq I_O \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	$V_N$	$T_A = 25^\circ C$ , $10Hz \leq f \leq 100kHz$	-	80	-	$\mu V/V_o$	
Temperature Coefficient of $V_O$	$\Delta V_O/\Delta T$	$I_O = 5mA$	-	-1.0	-	$mV/^\circ C$	
Ripple Rejection	RR	$f = 120Hz$ , $15V \leq V_I \leq 25V$ , $T_J = 25^\circ C$	37	65	-	dB	
Dropout Voltage	$V_D$	$T_J = 25^\circ C$	-	1.7	-	V	

**Note:**

- The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
- Power dissipation  $P_D \leq 0.75W$ .

**Electrical Characteristics(MC78L15A)** (Continued)

( $V_I = 23V$ ,  $I_O = 40mA$ ,  $0^\circ C \leq T_J \leq 125^\circ C$ ,  $C_I = 0.33 \mu F$ ,  $C_O = 0.1 \mu F$ , unless otherwise specified. (Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	$V_O$	$T_J = 25^\circ C$	14.4	15	15.6	V	
Line Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$17.5V \leq V_I \leq 30V$	-	25	300	mV
			$20V \leq V_I \leq 30V$	-	20	250	mV
Load Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$1mA \leq I_O \leq 100mA$	-	25	150	mV
			$1mA \leq I_O \leq 40mA$	-	12	75	mV
Output Voltage	$V_O$	$17.5V \leq V_I \leq 30V$	$1mA \leq I_O \leq 40mA$	14.25	-	15.75	V
		$17.5V \leq V_I \leq V_{MAX}$ (Note 2)	$1mA \leq I_O \leq 70mA$	14.25	-	15.75	V
Quiescent Current	$I_Q$	$T_J = 25^\circ C$	-	2.1	6.0	mA	
Quiescent Current Change	With Line	$\Delta I_Q$	$20V \leq V_I \leq 30V$	-	-	1.5	mA
	With Load	$\Delta I_Q$	$1mA \leq I_O \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	$V_N$	$T_A = 25^\circ C$ , $10Hz \leq f \leq 100kHz$	-	90	-	$\mu V/V_O$	
Temperature Coefficient of $V_O$	$\Delta V_O/\Delta T$	$I_O = 5mA$	-	-1.3	-	$mV/^\circ C$	
Ripple Rejection	RR	$f = 120Hz$ , $18.5V \leq V_I \leq 28.5V$ , $T_J = 25^\circ C$	34	60	-	dB	
Dropout Voltage	$V_D$	$T_J = 25^\circ C$	-	1.7	-	V	

**Note:**

1. The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
2. Power dissipation  $P_D \leq 0.75W$ .

**Electrical Characteristics(MC78L18A)** (Continued)

( $V_I = 27V$ ,  $I_O = 40mA$ ,  $0^\circ C \leq T_J \leq 125^\circ C$ ,  $C_I = 0.33\mu F$ ,  $C_O = 0.1\mu F$ , unless otherwise specified. (Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	$V_O$	$T_J = 25^\circ C$	17.3	18	18.7	V	
Line Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$21V \leq V_I \leq 33V$	-	145	300	mV
			$22V \leq V_I \leq 33V$	-	135	250	mV
Load Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$1mA \leq I_O \leq 100mA$	-	30	170	mV
			$1mA \leq I_O \leq 40mA$	-	15	85	mV
Output Voltage	$V_O$	$21V \leq V_I \leq 33V$	$1mA \leq I_O \leq 40mA$	17.1	-	18.9	V
		$21V \leq V_I \leq V_{MAX}$ (Note 2)	$1mA \leq I_O \leq 70mA$	17.1	-	18.9	V
Quiescent Current	$I_Q$	$T_J = 25^\circ C$	-	2.2	6.0	mA	
Quiescent Current Change	With Line	$\Delta I_Q$	$21V \leq V_I \leq 33V$	-	-	1.5	mA
	With Load	$\Delta I_Q$	$1mA \leq I_O \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	$V_N$	$T_A = 25^\circ C$ , $10Hz \leq f \leq 100kHz$	-	150	-	$\mu V/V_O$	
Temperature Coefficient of $V_O$	$\Delta V_O/\Delta T$	$I_O = 5mA$	-	-1.8	-	$mV/^\circ C$	
Ripple Rejection	RR	$f = 120Hz$ , $23V \leq V_I \leq 33V$ , $T_J = 25^\circ C$	34	48	-	dB	
Dropout Voltage	$V_D$	$T_J = 25^\circ C$	-	1.7	-	V	

**Note:**

1. The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
2. Power dissipation  $P_D \leq 0.75W$ .

**Electrical Characteristics(MC78L24A)** (Continued)(V<sub>I</sub> = 33V, I<sub>O</sub> = 40mA, 0°C ≤ T<sub>J</sub> ≤ 125°C, C<sub>I</sub> = 0.33μF, C<sub>O</sub> = 0.1μF, unless otherwise specified. (Note 1))

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	V <sub>O</sub>	T <sub>J</sub> = 25°C	23	24	25	V	
Line Regulation (Note1)	ΔV <sub>O</sub>	T <sub>J</sub> = 25°C	27V ≤ V <sub>I</sub> ≤ 38V	-	160	300	mV
			28V ≤ V <sub>I</sub> ≤ 38V	-	150	250	mV
Load Regulation (Note1)	ΔV <sub>O</sub>	T <sub>J</sub> = 25°C	1mA ≤ I <sub>O</sub> ≤ 100mA	-	40	200	mV
			1mA ≤ I <sub>O</sub> ≤ 40mA	-	20	100	mV
Output Voltage	V <sub>O</sub>	27V ≤ V <sub>I</sub> ≤ 38V	1mA ≤ I <sub>O</sub> ≤ 40mA	22.8	-	25.2	V
		27V ≤ V <sub>I</sub> ≤ V <sub>MAX</sub> (Note 2)	1mA ≤ I <sub>O</sub> ≤ 70mA	22.8	-	25.2	V
Quiescent Current	I <sub>Q</sub>	T <sub>J</sub> = 25°C	-	2.2	6.0	mA	
Quiescent Current Change	With Line	ΔI <sub>Q</sub>	28V ≤ V <sub>I</sub> ≤ 38V	-	-	1.5	mA
	With Load	ΔI <sub>Q</sub>	1mA ≤ I <sub>O</sub> ≤ 40mA	-	-	0.1	mA
Output Noise Voltage	V <sub>N</sub>	T <sub>A</sub> = 25°C, 10Hz ≤ f ≤ 100kHz	-	200	-	μV/V <sub>O</sub>	
Temperature Coefficient of V <sub>O</sub>	ΔV <sub>O</sub> /ΔT	I <sub>O</sub> = 5mA	-	-2.0	-	mV/°C	
Ripple Rejection	RR	f = 120Hz, 28V ≤ V <sub>I</sub> ≤ 38V, T <sub>J</sub> = 25°C	34	45	-	dB	
Dropout Voltage	V <sub>D</sub>	T <sub>J</sub> = 25°C	-	1.7	-	V	

**Note:**

1. The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
2. Power dissipation P<sub>D</sub> ≤ 0.75W.

## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Input Voltage (for $V_O = 5V, 8V$ ) (for $V_O = 12V$ to $18V$ ) (for $V_O = 24V$ )	$V_I$	30 35 40	V V V
Operating Junction Temperature Range	$T_J$	0 ~ +150	°C
Storage Temperature Range	$T_{STG}$	-65 ~ +150	°C

## Electrical Characteristics(MC78L05AA) (Continued)

( $V_I = 10V$ ,  $I_O = 40mA$ ,  $0^\circ C \leq T_J \leq 125^\circ C$ ,  $C_I = 0.33\mu F$ ,  $C_O = 0.1\mu F$ , unless otherwise specified. (Note 1))

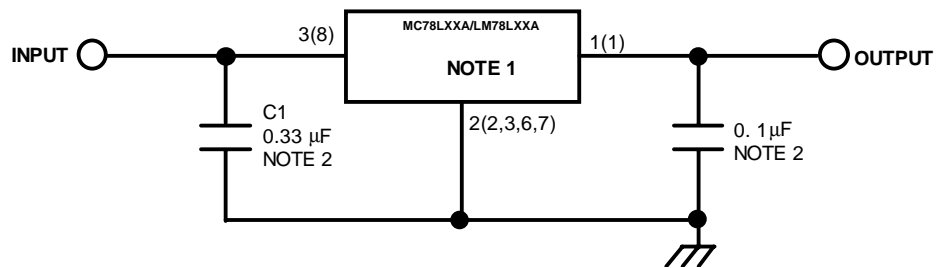
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit	
Output Voltage	$V_O$	$T_J = 25^\circ C$	4.9	5.0	5.1	V	
Line Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$7V \leq V_I \leq 20V$	-	8	150	mV
			$8V \leq V_I \leq 20V$	-	6	100	mV
Load Regulation (Note1)	$\Delta V_O$	$T_J = 25^\circ C$	$1mA \leq I_O \leq 100mA$	-	11	50	mV
			$1mA \leq I_O \leq 40mA$	-	5.0	25	mV
Output Voltage	$V_O$	$7V \leq V_I \leq 20V$	$1mA \leq I_O \leq 40mA$	-	-	5.15	V
		$7V \leq V_I \leq V_{MAX}$ (Note 2)	$1mA \leq I_O \leq 70mA$	4.75	-	5.15	V
Quiescent Current	$I_Q$	$T_J = 25^\circ C$	-	2.0	5.5	mA	
Quiescent Current Change	With Line	$\Delta I_Q$	$8V \leq V_I \leq 20V$	-	-	1.5	mA
	With Load	$\Delta I_Q$	$1mA \leq I_O \leq 40mA$	-	-	0.1	mA
Output Noise Voltage	$V_N$	$T_A = 25^\circ C$ , $10Hz \leq f \leq 100kHz$	-	40	-	$\mu V/V_O$	
Temperature Coefficient of $V_O$	$\Delta V_O/\Delta T$	$I_O = 5mA$	-	-0.65	-	$mV/^\circ C$	
Ripple Rejection	RR	$f = 120Hz$ , $8V \leq V_I \leq 18V$ , $T_J = 25^\circ C$	41	80	-	dB	
Dropout Voltage	$V_D$	$T_J = 25^\circ C$	-	1.7	-	V	

### Note:

- The maximum steady state usable output current and input voltage are very dependent on the heat sinking and/or lead length of the package. The data above represent pulse test conditions with junction temperature as indicated at the initiation of tests.
- Power dissipation  $P_D \leq 0.75W$ .



## Typical Application



'( )' : 8SOP Type

### Notes:

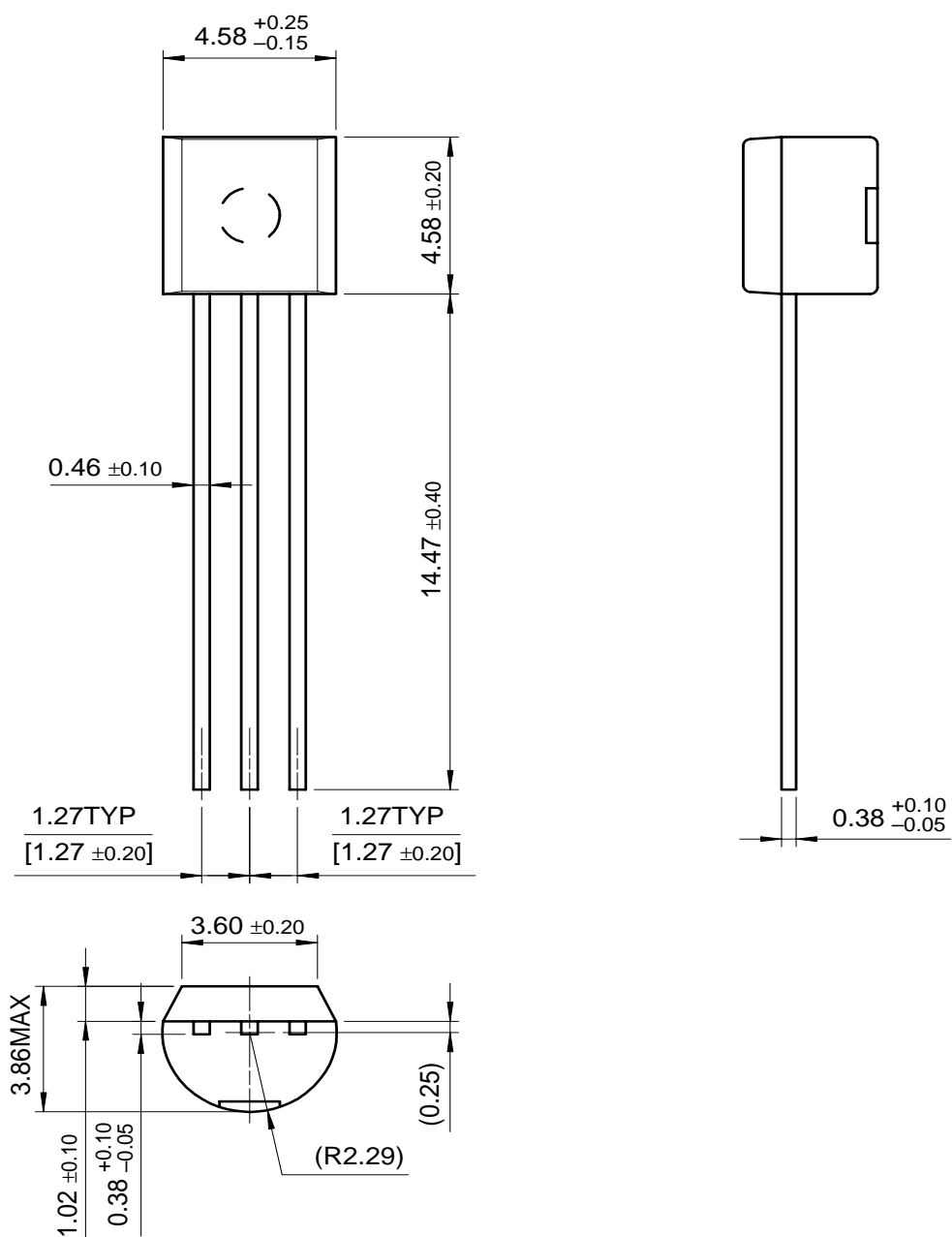
1. To specify an output voltage, substitute voltage value for "XX".
2. Bypass Capacitors are recommend for optimum stability and transient response and should be located as close as possible to the regulator

## Mechanical Dimensions

Package

Dimensions in millimeters

### TO-92

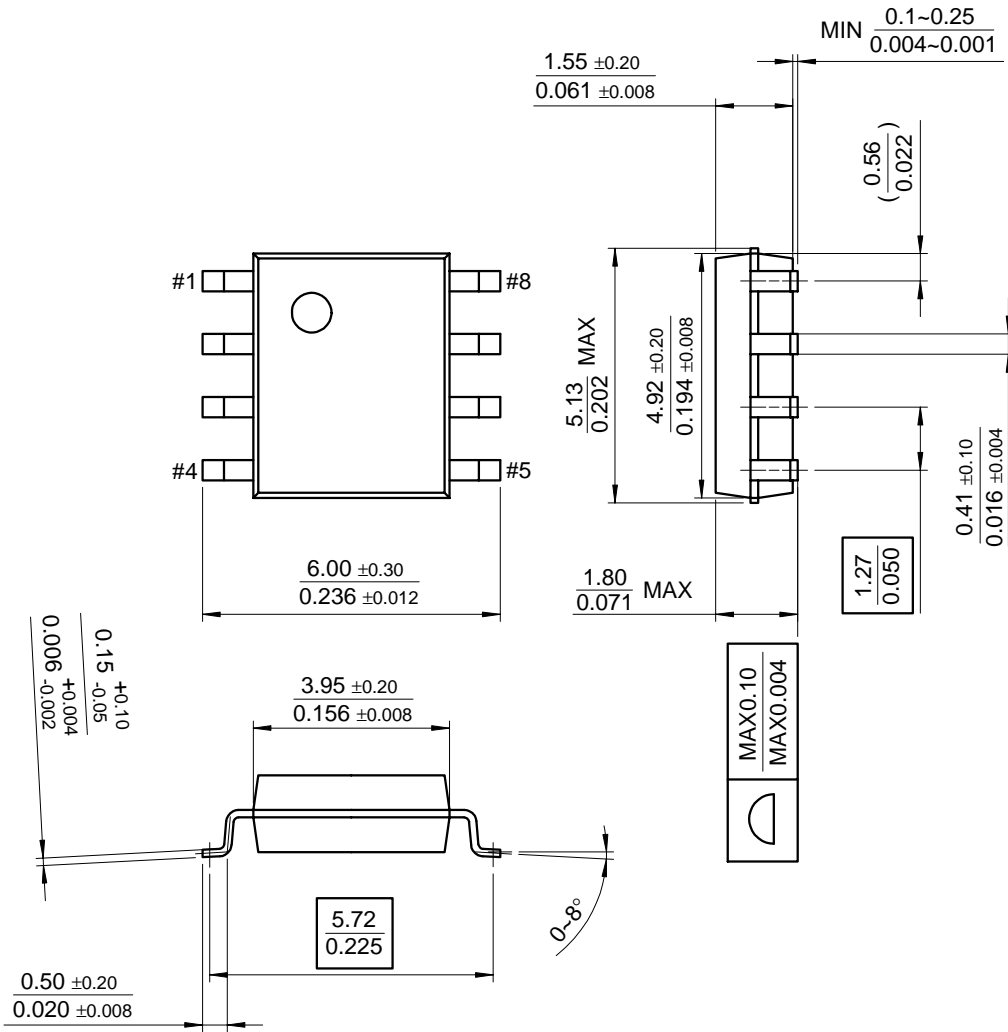


**Mechanical Dimensions** (Continued)

**Package**

Dimensions in millimeters

**8-SOP**





## Ordering Information

Product Number	Package	Output Voltage Tolerance	Operating Temperature		
LM78L05ACZ	TO-92	5%	0 ~ +125°C		
LM78L12ACZ					
Product Number	Package	Output Voltage Tolerance	Operating Temperature		
MC78L05ACP	TO-92	5%	0 ~ +125°C		
MC78L08ACP					
MC78L12ACP					
MC78L15ACP					
MC78L18ACP					
MC78L24ACP					
MC78L05ACD	8-SOP	5%	0 ~ +125°C		
MC78L08ACD					
MC78L12ACD					
MC78L05ACH	SOT-89			5%	0 ~ +125°C
MC78L08ACH					
MC78L12ACH					
MC78L05AACP	TO-92	2%			

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LM78L12A

3-Terminal 0.1A Positive Voltage Regulator

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
LM78L12ACZ	Full Production	<a href="#">TO-92</a>	3	BULK
LM78L12ACZX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
LM78L12ACZXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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LM78L05A

3-Terminal 0.1A Positive Voltage Regulator

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
LM78L05ACZXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
LM78L05ACZ	Full Production	<a href="#">TO-92</a>	3	BULK
LM78L05ACZX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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MC78L05A

3-Terminal 0.1A Postive Voltage Regulator

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## General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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## Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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## Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L05ACPX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L05ACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L05ACP	Full Production	<a href="#">TO-92</a>	3	BULK
MC78L05ACD	Full Production	<a href="#">SOIC</a>	8	RAIL
MC78L05ACDX	Full Production	<a href="#">SOIC</a>	8	TAPE REEL

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MC78L05AA

Product information

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L05AACP	Full Production	<a href="#">TO-92</a>	3	BULK
MC78L05AACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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MC78L08A

3-Terminal 0.1A Postive Voltage Regulator

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[General description](#) | [Features](#) | [Product status/pricing/packaging](#)

General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L08ACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L08ACPX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L08ACP	Full Production	<a href="#">TO-92</a>	3	BULK

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MC78L12A

3-Terminal 0.1A Postive Voltage Regulator

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L12ACPX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L12ACP	Full Production	<a href="#">TO-92</a>	3	BULK
MC78L12ACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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MC78L15A  
3-Terminal 0.1A Postive Voltage Regulator

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L15ACD	Full Production	<a href="#">SOIC</a>	8	RAIL
MC78L15ACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L15ACDX	Full Production	<a href="#">SOIC</a>	8	TAPE REEL
MC78L15ACP	Full Production	<a href="#">TO-92</a>	3	BULK
MC78L15ACPX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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MC78L18A

3-Terminal 0.1A Postive Voltage Regulator

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L18ACP	Full Production	<a href="#">TO-92</a>	3	BULK
MC78L18ACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L18ACPX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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MC78L24A

3-Terminal 0.1A Postive Voltage Regulator

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General description

The MC78LXXA/LM78LXXA/MC78L05AA series of fixed voltage monolithic integrated circuit voltage regulators are suitable for application that required supply up to 100mA.

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Features

- Maximum Output Current of 100mA
- Output Voltage of 5V, 8V, 12V, 15V, 18V and 24V
- Thermal Overload Protection
- Short Circuit Current Limiting
- Output Voltage Offered in  $\pm 5\%$  Tolerance

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Product status/pricing/packaging

Product	Product status	Package type	Leads	Packing method
MC78L24ACP	Full Production	<a href="#">TO-92</a>	3	BULK
MC78L24ACPX	Full Production	<a href="#">TO-92</a>	3	TAPE REEL
MC78L24ACPXA	Full Production	<a href="#">TO-92</a>	3	TAPE REEL

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