


**AS79LXXACP, AS79LXXCP Characteristics**  
 (Note 2)  $T_A = 0^\circ\text{C}$  to  $70^\circ\text{C}$  unless otherwise noted

AS79LXX Output Voltage, V	-9		-12		-15		Unit
	Min	Typ	Min	Typ	Min	Typ	
Input Voltage, V (unless otherwise noted)	-14		-17		-20		
Parameter	Conditions	Min	Typ	Max	Min	Typ	Max
Quiescent Current Change	$1\text{mA} \leq I_o \leq 100\text{mA}$ $1\text{mA} \leq I_o \leq 40\text{mA}$ $I_o = 100\text{mA}$ $V_{\text{MIN}} \leq V_{\text{IN}} \leq V_{\text{MAX}}$	0.3	0.3	0.3	0.3	0.3	mA
Output Noise Voltage	$T_J = 25^\circ\text{C}, I_o = 100\text{mA}$ $f = 10\text{ Hz} + 10\text{ kHz}$	80	96	96	120	120	$\mu\text{V}$
Ripple Rejection	$T_J = 25^\circ\text{C}, I_o = 100\text{mA}$ $f = 120\text{ Hz}$	50	52	52	50	50	dB
Input Voltage Required to Maintain Line Regulation	$T_J = 25^\circ\text{C}, I_o = 100\text{mA}$ $I_o = 40\text{mA}$	-11.8	-14.6	-14.5	-17.7	-17.5	V
		-11.5	-14.5	-14.5	-17.5	-17.5	V

**Note 1:** Thermal resistance is  $232^\circ\text{C}/\text{W}$   $\theta_{JA}$  at still air. The maximum junction temperature shall not exceed  $125^\circ\text{C}$  on electrical parameters.

**Note 2:** To ensure constant junction temperature, low duty cycle pulse testing is used.


**AS79LXX Series 3-Terminal Negative Regulators**
**General Description**

The AS79LXX series of 3-terminal negative voltage regulators features fixed output voltages of -9V, -12V, and -15V with output current capabilities in excess of 100 mA. These devices were designed using the latest computer techniques for optimizing the packaged IC thermal/electrical performance. The AS79LXX series, even when combined with a minimum output compensation capacitor of 0.1  $\mu\text{F}$ , exhibits an excellent transient response, a maximum line regulation of 0.07 %  $V_o/V$ , and a maximum load regulation of 0.01 %  $V_o/\text{mA}$ .

The AS79LXX series also includes, as self-protection circuitry: safe operating area circuitry for output transistor power dissipation limiting, a temperature independent short circuit current limit for peak output current limiting, and a thermal shutdown circuit to prevent excessive junction temperature. Although designed primarily as fixed voltage regulators, these devices may be combined with simple external circuitry for boosted and/or adjustable voltages and currents. The AS79LXX series is available in the 3-lead TO-92 package.

**Features**

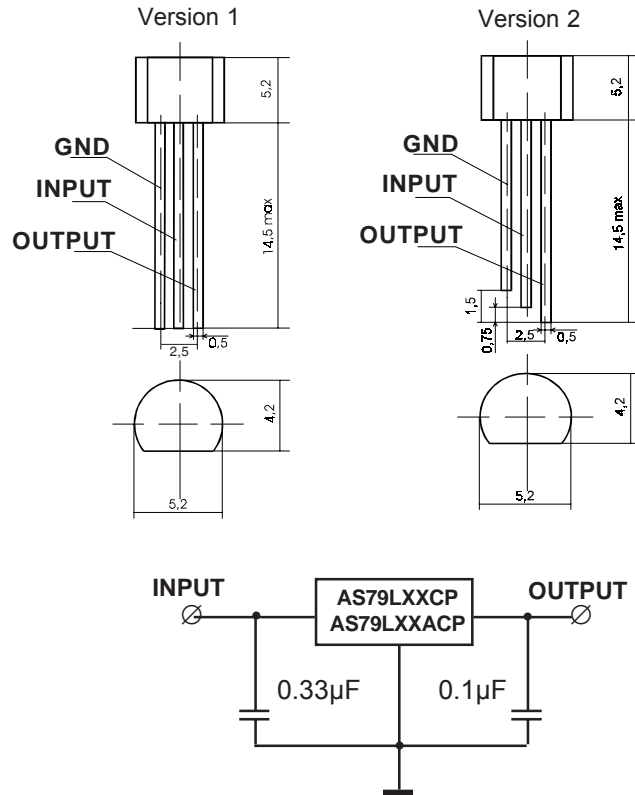
- Output voltage tolerances of  $\pm 10\%$  (AS79LXXCP),  $\pm 5\%$  (AS79LXXACP) over the temperature range.
- Preset output voltage error is less than  $\pm 5\%$  overload, line and temperature.
- Specified at an output current of 100 mA.
- Easily compensated with a small 0.1  $\mu\text{F}$  output capacitor.
- Internal short-circuit, thermal and safe operating area protection.
- Easily adjustable to higher output voltages.
- Maximum line regulation less than 0.07%  $V_{\text{OUT}}/V$ .
- Maximum load regulation less than 0.01%  $V_{\text{OUT}}/\text{mA}$ .
- TO-92 package.



**Absolute Maximum Ratings**

Input Voltage $V_o = -9V, -12V, -15V$	-35 V
Internal Power Dissipation (Note 1)	Internally Limited
Operating Temperature Range	0°C to +70°C
Maximum Junction Temperature	+125°C
Storage Temperature Range	-55°C to +150°C
Lead Temperature (Soldering, 10 sec.)	+260°C

**Connection Diagrams**



Order Number:  
 AS79L09CP  
 AS79L12CP  
 AS79L15CP  
 AS79L09ACP  
 AS79L12ACP  
 AS79L15ACP



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AS79LXX Output Voltage, V	-15		-20		Unit
	Min	Typ	Max	Max	
Output Voltage	-15.6	-15	-14.4	-14.25	V
Input Voltage, V (unless otherwise noted)	-15.75	-15	-14.25	-14.25	V
Parameter	Min	Typ	Max	Max	V
Line Regulation	Min	Typ	Max	Max	mV
Load Regulation	45	45	45	45	mV
Quiescent Current	125	100	100	100	mA