Is Now Part of

ON Semiconductor®

To learn more about ON Semiconductor, please visit our website at
www.onsemi.com

Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

September 2014

KA79XX / KA79XXA / LM79XX
3-Terminal 1 A Negative Voltage Regulator

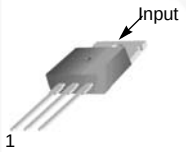
Features

- Output Current in Excess of 1 A
- Output Voltages of: -5 V, -6 V, -8 V, -9 V, -12 V, -15 V, -18 V, -24 V
- Internal Thermal Overload Protection
- Short-Circuit Protection
- Output Transistor Safe Operating Area Compensation

Description

The KA79XX / KA79XXA / LM79XX series of three-terminal negative regulators are available in a TO-220 package with several fixed output voltages, making them useful in a wide range of applications. Each type employs internal current limiting, thermal shutdown, and safe operating area protection.

TO-220



1. GND 2. Input 3. Output

Ordering Information

Product Number	Output Voltage Tolerance	Package	Packing Method	Operating Temperature
KA7905TU	±4%	TO-220 (Dual Gauge)	Rail	0 to +125°C
KA7906TU				
KA7908TU				
KA7909TU				
KA7912TU				
KA7915TU				
KA7918TU				
KA7924TU				
KA7912ATU	±2%			
KA7915ATU				
LM7905CT	±4%	TO-220 (Single Gauge)		
LM7908CT				
LM7909CT				
LM7910CT				
LM7912CT				
LM7915CT				
LM7918CT				

Block Diagram

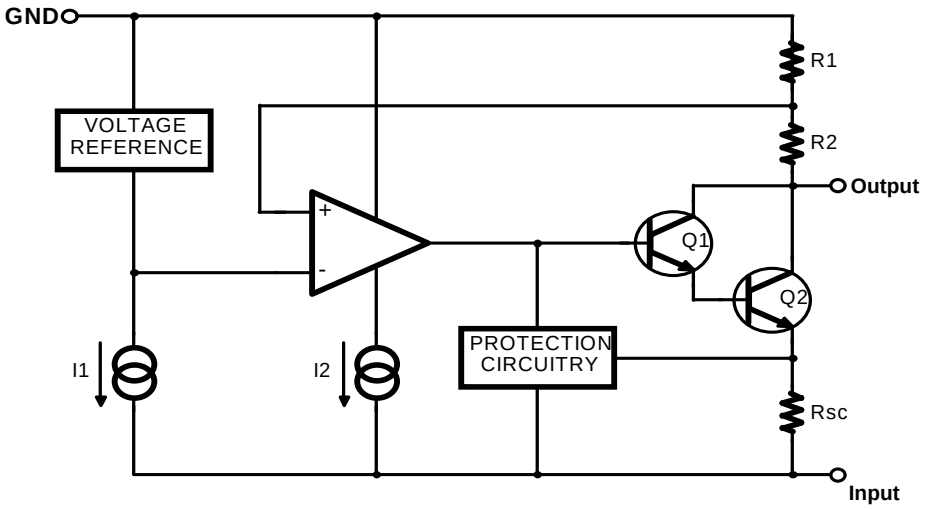


Figure 1. Block Diagram

Absolute Maximum Ratings

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at T_A = 25°C unless otherwise noted.

Symbol	Parameter	Value	Unit
V_I	Input Voltage	-35	V
$R_{\theta JC}$	Thermal Resistance, Junction-Case(1)	5	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction-Air(1, 2)	65	°C/W
T_{OPR}	Operating Temperature Range	0 to +125	°C
T_{STG}	Storage Temperature Range	- 65 to +150	°C

Notes:

1. Thermal resistance test board, size: 76.2 mm x 114.3 mm x 1.6 mm(1S0P), JEDEC standard: JESD51-3, JESD51-7.
2. Assume no ambient airflow.

Electrical Characteristics (KA7905 / LM7905)

(V_I = -10 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O = 1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-4.80	-5.00	-5.20	V
		I_O = 5 mA to 1 A, $P_O \leq$ 15 W, V_I = -7 V to -20 V		-4.75	-5.00	-5.25	
ΔV_O	Line Regulation(3)	T_J = +25°C	V_I = -7 V to -25 V		35	100	mV
			V_I = -8 V to -12 V		8	50	
ΔV_O	Load Regulation(3)	T_J = +25°C, I_O = 5 mA to 1.5 A			10	100	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			3	50	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -8 V to -25 V			0.10	0.80	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_D	I_O = 5 mA			-0.4		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			40		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

3. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7906)

(V_I = -11 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O = 1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-5.75	-6.00	-6.25	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W, V_I = -9 V to -21 V		-5.70	-6.00	-6.30	
ΔV_O	Line Regulation(4)	T_J = +25°C	V_I = -8 V to -25 V		10	120	mV
			V_I = -9 V to -13 V		5	60	
ΔV_O	Load Regulation(4)	T_J = +25°C, I_O = 5 mA to 1.5 A			10	120	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			3	60	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -8 V to -25 V			0.10	1.30	
ΔVo/ΔT	Temperature Coefficient of V_D	I_O = 5 mA			-0.5		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A =+25°C			130		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

4. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7908 / LM7908)

(V_I = -14 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O =1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-7.7	-8.0	-8.3	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W, V_I = -10 V to -23 V		-7.6	-8.0	-8.4	
ΔV_O	Line Regulation(5)	T_J = +25°C	V_I = -10.5 V to -25 V		10	160	mV
			V_I = -11 V to -17 V		5	80	
ΔV_O	Load Regulation(5)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	160	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	80	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -10.5 V to -25 V			0.10	1.00	
ΔVo/ΔT	Temperature Coefficient of V_D	I_O = 5 mA			-0.6		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			175		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

5. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7909 / LM7909)

(V_I = -15 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O =1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-8.7	-9.0	-9.3	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W, V_I = -1.5 V to -23 V		-8.6	-9.0	-9.4	
ΔV_O	Line Regulation(6)	T_J = +25°C	V_I = -11.5 V to -26 V		10	180	mV
			V_I = -12 V to -18 V		5	90	
ΔV_O	Load Regulation(6)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	180	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	90	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -11.5 V to -26 V			0.10	1.00	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_D	I_O = 5 mA			-0.6		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			175		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

6. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (LM7910)

(V_I = -17 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O =1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-9.6	-10.0	-10.4	V
		I_O = 5 mA to 1A, P_d ≤ 15 W, V_I = -12 V to -28 V		-9.5	-10.0	-10.5	
ΔV_O	Line Regulation(7)	T_J = +25°C	V_I = -12.5 V to -28 V		12	200	mV
			V_I = -14 V to -20 V		6	100	
ΔV_O	Load Regulation(7)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	200	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	100	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -12.5 V to -28 V			0.10	1.00	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_O	I_O = 5 mA			-1		mV/°C
V_N	Output Noise Voltage	10 Hz ≤ f ≤ 100 kHz, T_A = +25°C			280		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

7. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7912 / LM7912)

(V_I = -19 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O = 1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-11.5	-12.0	-12.5	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W V_I = -15.5 V to -27 V		-11.4	-12.0	-12.6	
ΔV_O	Line Regulation(8)	T_J = +25°C	V_I = -14.5 V to -30 V		12	240	mV
			V_I = -16 V to -22 V		6	120	
ΔV_O	Load Regulation(8)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	240	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	120	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -14.5 V to -30 V			0.10	1.00	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_D	I_O = 5 mA			-0.8		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			200		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

8. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7915 / LM7915)

(V_I = -23 V, I_O = 500 mA, 0°C ≤T_J ≤ +125°C, C_I = 2.2 µF, C_O = 1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-14.40	-15.00	-15.60	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W V_I = -18 V to -30 V		-14.25	-15.00	-15.75	
ΔV_O	Line Regulation(9)	T_J = +25°C	V_I = -17.5 V to -30 V		12	300	mV
			V_I = -20 V to -26 V		6	150	
ΔV_O	Load Regulation(9)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	300	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	150	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -17.5 V to -30 V			0.10	1.00	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_D	I_O = 5 mA			-0.9		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			250		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

9. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7918 / LM7918)

(V_I = -27 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O =1 µF, unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-17.3	-18.0	-18.7	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W V_I = -22.5 V to -33 V		-17.1	-18.0	-18.9	
ΔV_O	Line Regulation(10)	T_J = +25°C	V_I = -21 V to -33 V		15	360	mV
			V_I = -24 V to -30 V		8	180	
ΔV_O	Load Regulation(10)	T_J = +25°C, I_O = 5 mA to 1.5 A			15	360	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			5	180	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -21 V to -33 V			0.10	1.00	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_D	I_O = 5 mA			-1		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			300		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

10. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7924)

(V_I = -33 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O = 1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-23.0	-24.0	-25.0	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W, V_I = -27 V to -38 V		-22.8	-24.0	-25.2	
ΔV_O	Line Regulation(11)	T_J = +25°C	V_I = -27 V to -38 V		15	480	mV
			V_I = -30 V to -36 V		8	180	
ΔV_O	Load Regulation(11)	T_J = +25°C, I_O = 5 mA to 1.5 A			15	480	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			5	240	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -27 V to -38 V			0.10	1.00	
$\Delta Vo/\Delta T$	Temperature Coefficient of V_D	I_O = 5 mA			-1		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			400		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

11. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7912A)

(V_I = -19 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O =1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-11.75	-12.00	-12.25	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W, V_I = -15.5 V to -27 V		-11.50	-12.00	-12.50	
ΔV_O	Line Regulation(12)	T_J = +25°C	V_I = -14.5 V to -27 V, Io = 1 A		12	120	mV
			V_I= -16 V to -22 V, Io = 1 A		6	60	
		V_I = -14.8 V to -30 V			12	120	
		V_I = -16 V to -22 V, Io = 1 A			12	120	
ΔV_O	Load Regulation(12)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	150	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	75	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -15 V to -30 V			0.10	1.00	
ΔVo/ΔT	Temperature Coefficient of V_D	I_O = 5 mA			-0.8		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			200		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

12. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Electrical Characteristics (KA7915A)

(V_I = -23 V, I_O = 500 mA, 0°C ≤ T_J ≤ +125°C, C_I = 2.2 µF, C_O = 1 µF; unless otherwise specified.)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V_O	Output Voltage	T_J = +25°C		-14.7	-15.0	-15.3	V
		I_O = 5 mA to 1 A, P_O ≤ 15 W, V_I = -18 V to -30 V		-14.4	-15.0	-15.6	
ΔV_O	Line Regulation(13)	T_J = +25°C	V_I = -17.5 V to -30 V, Io = 1 A		12	150	mV
			V_I = -20 V to -26 V, Io = 1 A		6	75	
		V_I = -17.9 V to -30 V			12	150	
		V_I = -20 V to -26 V, Io = 1 A			6	150	
ΔV_O	Load Regulation(13)	T_J = +25°C, I_O = 5 mA to 1.5 A			12	150	mV
		T_J = +25°C, I_O = 250 mA to 750 mA			4	75	
I_Q	Quiescent Current	T_J = +25°C			3	6	mA
ΔI_Q	Quiescent Current Change	I_O = 5 mA to 1 A			0.05	0.50	mA
		V_I = -18.5 V to -30 V			0.10	1.00	
ΔVo/ΔT	Temperature Coefficient of V_D	I_O = 5 mA			-0.9		mV/°C
V_N	Output Noise Voltage	f = 10 Hz to 100 kHz, T_A = +25°C			250		µV
RR	Ripple Rejection	f = 120 Hz, ΔV_I = 10 V		54	60		dB
V_D	Dropout Voltage	T_J = +25°C, I_O = 1 A			2		V
I_{SC}	Short-Circuit Current	T_J = +25°C, V_I = -35 V			300		mA
I_{PK}	Peak Current	T_J = +25°C			2.2		A

Note:

13. Load and line regulation are specified at constant junction temperature. Changes in V_O due to heating effects must be taken into account separately. Pulse testing with low duty is used.

Typical Performance Characteristics

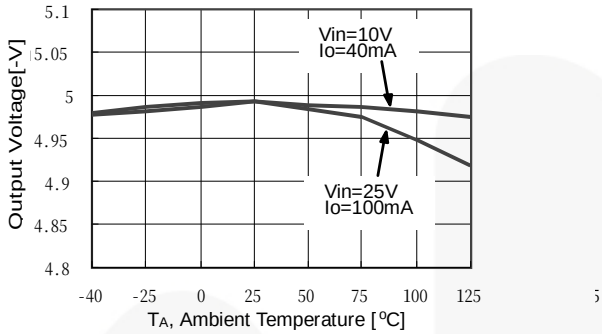


Figure 2. Output Voltage

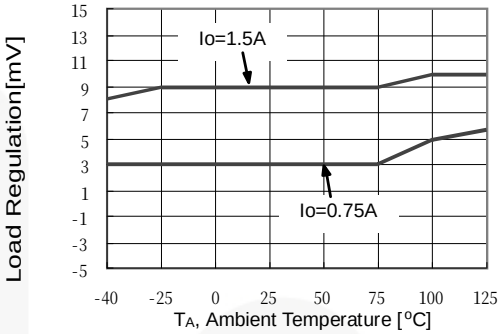


Figure 3. Load Regulation

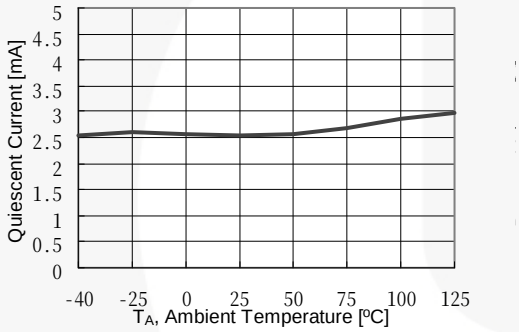


Figure 4. Quiescent Current

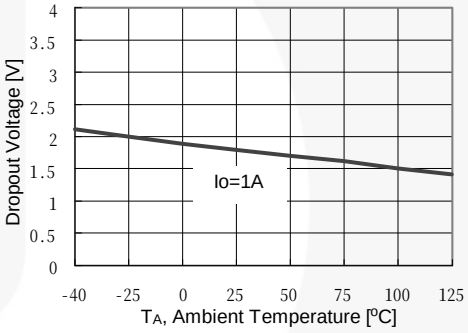


Figure 5. Dropout Voltage

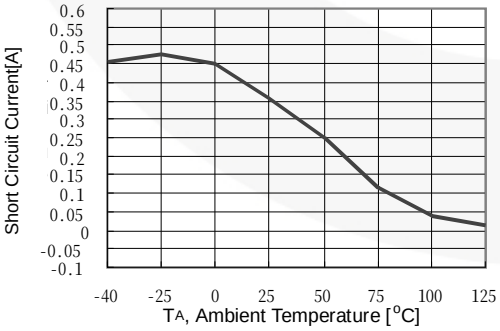


Figure 6. Short-Circuit Current

Typical Applications

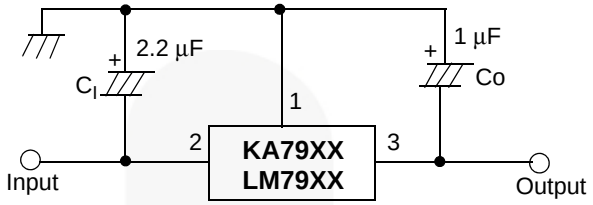


Figure 7. Negative Fixed Output Regulator

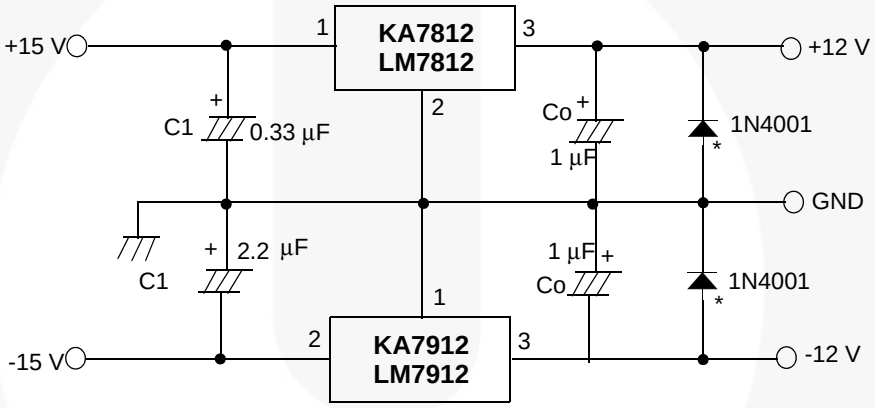


Figure 8. Split Power Supply (±12 V / 1 A)

Notes:

14. To specify an output voltage, substitute voltage value for "XX".
15. C_I is required if the regulator is located an appreciable distance from the power supply filter. For value given, capacitor must be solid tantalum. If aluminium electronics are used, at least ten times the value shown should be selected.
16. C_O improves stability and transient response. If large capacitors are used, a high-current diode from input to output (1N4001 or similar) should be introduced to protect the device from momentary input short circuit.

Physical Dimensions

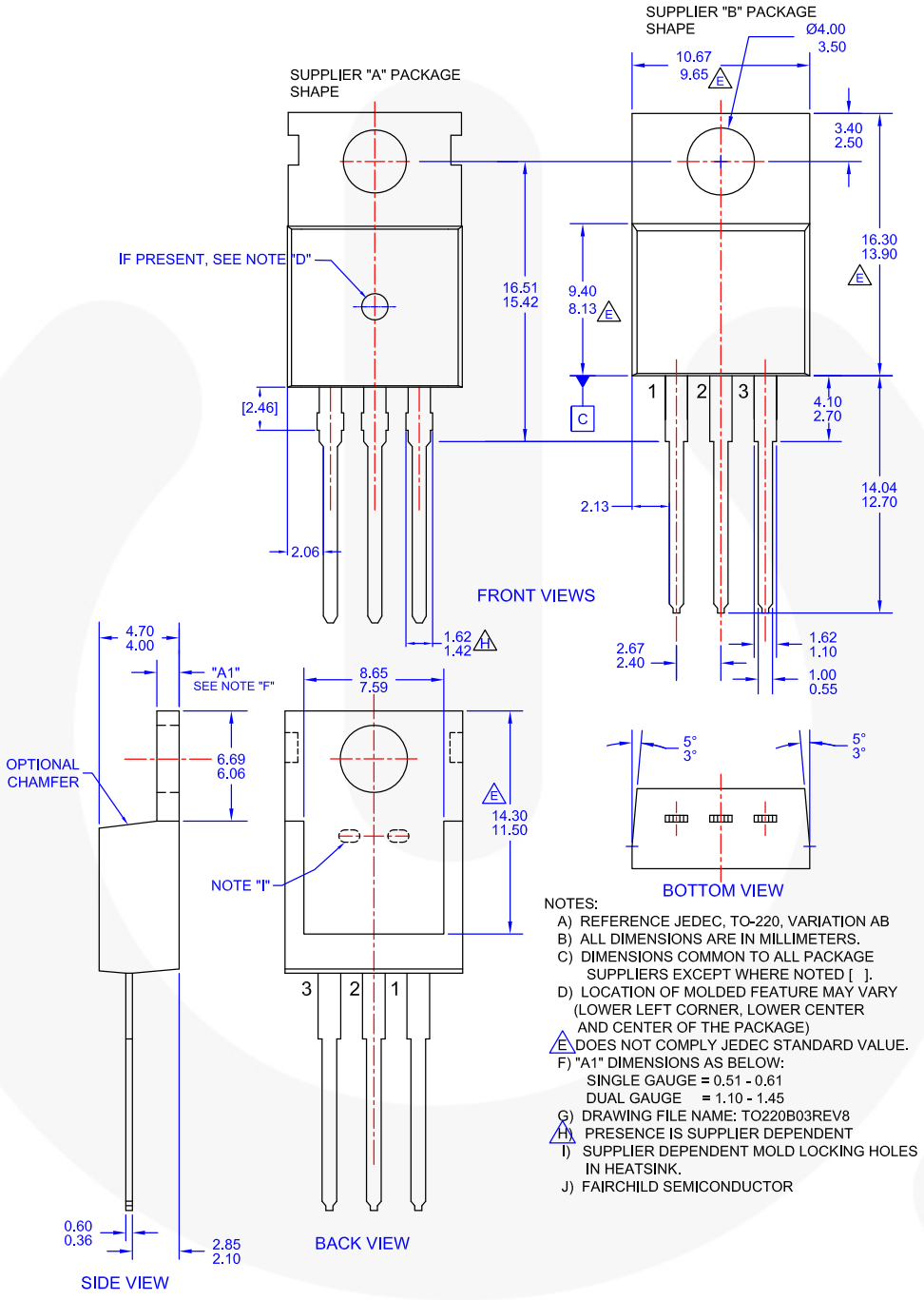


Figure 9. TO-220, MOLDED, 3-LEAD, JEDEC VARIATION AB (ACTIVE)

TRADEMARKS

The following includes registered and unregistered trademarks and service marks, owned by Fairchild Semiconductor and/or its global subsidiaries, and is not intended to be an exhaustive list of all such trademarks.

AccuPower™
Awinda®
AX-CAP®*
BitSiC™
Build it Now™
CorePLUS™
CorePOWER™
CROSSVOLT™
CTL™
Current Transfer Logic™
DEUXPEED®
Dual Cool™
EcoSPARK®
EfficientMax™
ESBC™
F®
Fairchild®
Fairchild Semiconductor®
FACT Quiet Series™
FACT®
FAST®
FastvCore™
FETBench™
FPS™
F-PFS™
FRFET®
Global Power Resource SM
GreenBridge™
Green FPS™
Green FPS™ e-Series™
G*max*™
GTO™
IntelliMAX™
ISOPLANAR™
Making Small Speakers Sound Louder and Better™
MegaBuck™
MICROCOUPLER™
MicroFET™
MicroPak™
MicroPak2™
MillerDrive™
MotionMax™
MotionGrid®
MTi®
MTx®
MVN®
mWSaver®
OptoHiT™
PowerTrench®
PowerXS™
Programmable Active Droop™
QFET®
QS™
Quiet Series™
RapidConfigure™
™
Saving our world, 1mW/W/kW at a time™
SignalWise™
SmartMax™
SMART START™
Solutions for Your Success™
SPM®
STEALTH™
SuperFET®
SuperSOT™-3
SuperSOT™-6
SuperSOT™-8
SupreMOS®
SyncFET™
Sync-Lock™
SYSTEM GENERAL®*
TinyBoost®
TinyBuck®
TinyCalc™
TinyLogic®
TINYOPTO™
TinyPower™
TinyPWM™
TinyWire™
TranSiC™
TriFault Detect™
TRUECURRENT®*
µSerDes™
SerDes™
UHC®
Ultra FRFET™
UniFET™
VCX™
VisualMax™
VoltagePlus™
XS™
Xsens™
仙童™

* Trademarks of System General Corporation, used under license by Fairchild Semiconductor.

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. TO OBTAIN THE LATEST, MOST UP-TO-DATE DATASHEET AND PRODUCT INFORMATION, VISIT OUR WEBSITE AT HTTP://WWW.FAIRCHILDSEMI.COM. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support, device, or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

ANTI-COUNTERFEITING POLICY

Fairchild Semiconductor Corporation's Anti-Counterfeiting Policy. Fairchild's Anti-Counterfeiting Policy is also stated on our external website, www.fairchildsemi.com, under Sales Support.

Counterfeiting of semiconductor parts is a growing problem in the industry. All manufacturers of semiconductor products are experiencing counterfeiting of their parts. Customers who inadvertently purchase counterfeit parts experience many problems such as loss of brand reputation, substandard performance, failed applications, and increased cost of production and manufacturing delays. Fairchild is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. Fairchild strongly encourages customers to purchase Fairchild parts either directly from Fairchild or from Authorized Fairchild Distributors who are listed by country on our web page cited above. Products customers buy either from Fairchild directly or from Authorized Fairchild Distributors are genuine parts, have full traceability, meet Fairchild's quality standards for handling and storage and provide access to Fairchild's full range of up-to-date technical and product information. Fairchild and our Authorized Distributors will stand behind all warranties and will appropriately address any warranty issues that may arise. Fairchild will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. Fairchild is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative / In Design	Datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.

PUBLICATION ORDERING INFORMATION

LITERATURE FULFILLMENT:
Literature Distribution Center for ON Semiconductor
19521 E. 32nd Pkwy, Aurora, Colorado 80011 USA
Phone: 303−675−2175 or 800−344−3860 Toll Free USA/Canada
Fax: 303−675−2176 or 800−344−3867 Toll Free USA/Canada
Email: orderlit@onsemi.com

N. American Technical Support: 800−282−9855 Toll Free USA/Canada
Europe, Middle East and Africa Technical Support:
Phone: 421 33 790 2910
Japan Customer Focus Center
Phone: 81−3−5817−1050

ON Semiconductor Website: **www.onsemi.com**

Order Literature: http://www.onsemi.com/orderlit

For additional information, please contact your local Sales Representative

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

onsemi:
KA7908TU