

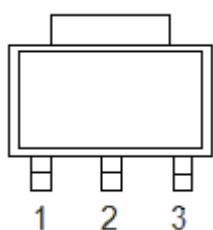
1. Description

The KIA79L12 series of three terminal positive regulators is available with several fixed output voltages making them useful in a wide range of applications. KIA79L12 can use as a zener diode/resistor combination replacement, and lower quiescent current. These devices suitable for a multitude of applications that require a regulated supply of up to 100 mA. The voltages available allow the KIA79L12 to be used in logic systems, instrumentation, HiFi, and other solid state electronic equipment. A circuit takes over preventing the IC from overheating.

2. Applications

- Package SOT-89
- Output voltage tolerances of $\pm 5\%$ over the temperature range
- Output current of 100mA
- Internal thermal overload protection
- Output voltages of 12.0V

3. Pin information



Pin	Description
1	GND
2	V _{IN}
3	V _{OUT}

SOT89 Front View

4. Maximum ratings

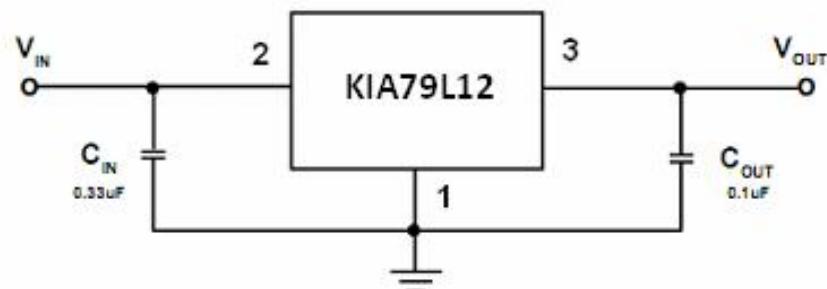
Characteristic	Symbol	Rating	Units
Input voltage	V _{IN}	-35	V
Power dissipation (T _C =25°C)	P _D	500	mW
Operating temperature	T _{OPR}	0~+125	°C
Storage tempperature	T _{STG}	-55~+150	°C

5. Electrical characteristics

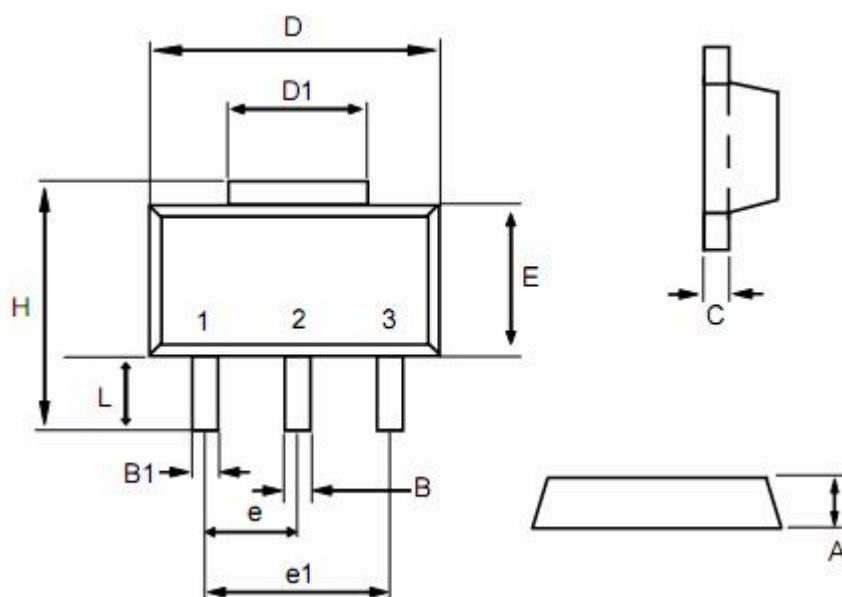
(V_{IN}=-19V,I_{OUT}=40mA,C_{IN}=0.33uF,C_{OUT}=0.1uF,T_J=0°Cto125°C)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Output voltage	V _{OUT}	T _J =25°C	-12.5	-12	-11.5	V
Input regulation	Reg line	T _J =25°C	-27V≤V _{IN} ≤-14.5V	-	120	250
			-27V≤V _{IN} ≤-16V	-	100	200
Load regulation	Reg load	T _J =25°C	1.0mA≤I _{OUT} ≤100mA	-	20	100
			1.0mA≤I _{OUT} ≤40mA	-	10	50
Output voltage	V _{OUT}	-27V≤V _{IN} ≤-14.5V 1.0mA≤I _{OUT} ≤40mA	-12.6	-	-11.4	V
		V _{IN} =-19V, 1.0mA≤I _{OUT} ≤70mA	-12.6	-	-11.4	V
Quiescent current	I _Q	T _J =25°C	-	3.2	6.5	mA
		T _J =125°C			6.0	mA
Quiescent current change	ΔI _Q	-27V≤V _{IN} ≤-16V	-	-	1.5	mA
		1.0mA≤I _{OUT} ≤40mA	-	-	0.1	mA
Output noise voltage	V _{NO}	T _a =25°C 10Hz≤f≤100KHz	-	80	-	uVrm
Long term stability	△V _{out} /△t		-	24	-	mV/1.0kHrs
Ripple rejection ratio	RR	-25V≤V _{IN} ≤-15V, T _J =25°C,f=120Hz	36	41	-	dB
Dropout voltage	V _{IN} -V _{OUT}	T _J =25°C,I _{OUT} =40mA	-	1.7	-	V
Average temperature Coefficient of output voltage	TC _{VO}	I _{OUT} =5mA	-	-1.0	-	mV/°C

6. Application circuits



7. Package outline



Dim	min	max
A	1.40	1.60
B	0.40	0.56
B1	0.35	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.35	1.83
e	1.50 BSC	
e1	3.00 BSC	
E	2.29	2.60
H	3.75	4.25
L	0.80	1.20