



### DESCRIPTION

Three-terminal positive voltage regulator

The A78L06 is available in SOT-89-3 package.

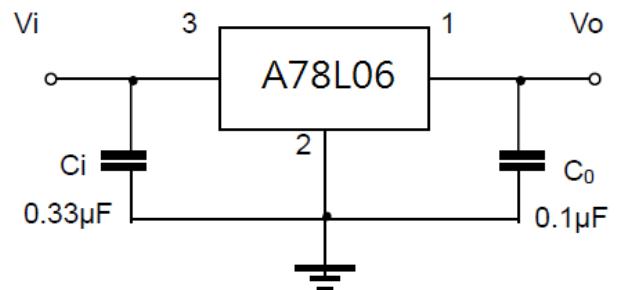
### FEATURES

- Maximum Output current  
 $I_{OM}$ : 0.1A
- Output voltage  
 $V_o$ : 6 V
- Continuous total dissipation  
 $P_D$ : 05.W
- Available in SOT-89-3 Package

### ORDER INFORMATION

Package Type	Part Number	
SOT-89-3	K3	A78L06K3R
		A78L06K3VR
Note	R: Tape & Reel V: Green Package	
AiT provides all Pb free products Suffix " V " means Green Package		

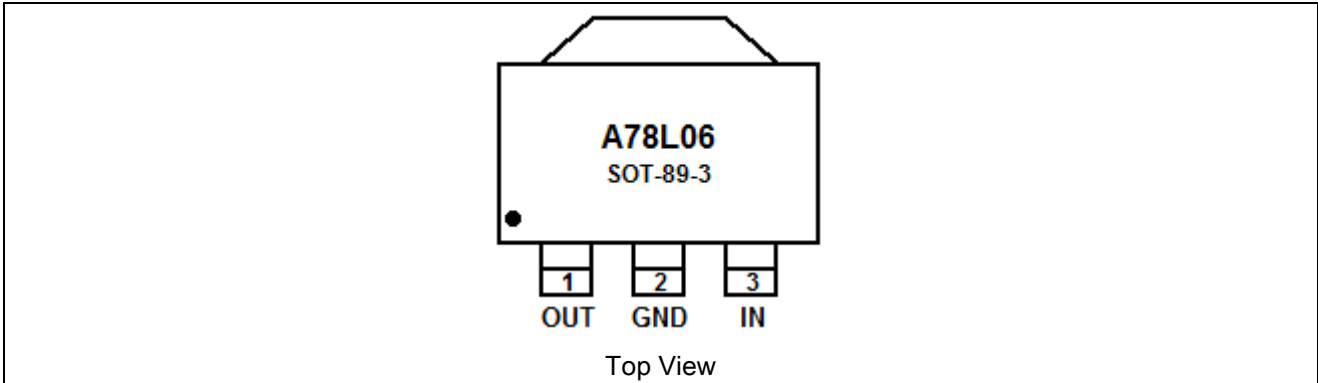
### TYPICAL APPLICATION



NOTE: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.



**PIN DESCRIPTION**



Pin #	Symbol	Function
1	OUT	Output
2	GND	Ground
3	IN	Supply Input



## ABSOLUTE MAXIMUM RATINGS

Operating temperature range applies unless otherwise specified

$V_i$ , Input Voltage	30 V
$T_{OPR}$ , Operating Junction Temperature Range	0°C to 125°C
$T_{STG}$ , Storage Temperature Range	-55°C to 150°C

Stresses above may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

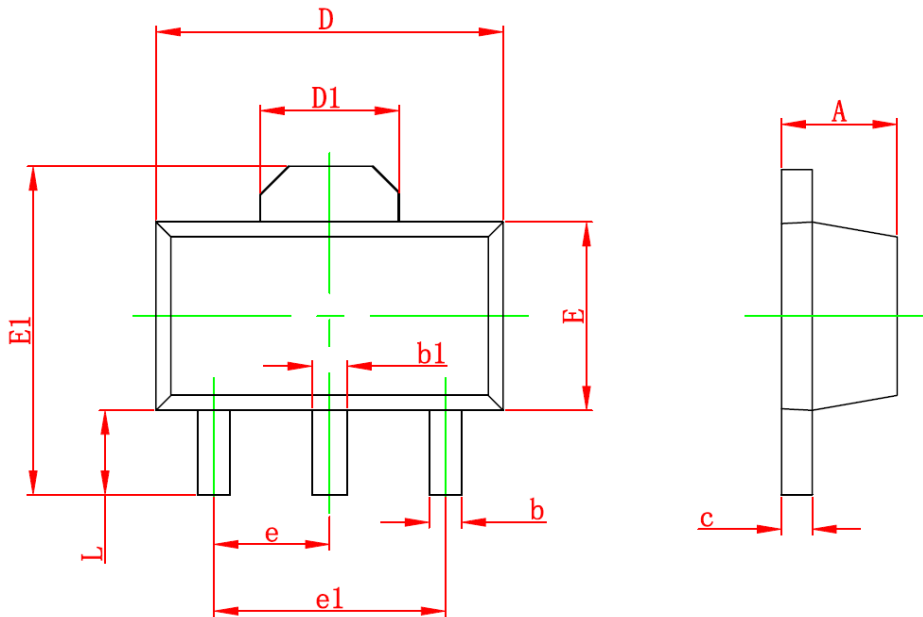
**ELECTRICAL CHARACTERISTICS** $V_i=11V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Unit	
Output Voltage	$V_o$		25°C	5.75	6	6.25	V
		$8V \leq V_i \leq 20V,$ $I_o=1mA-40mA$	0-125°C	5.7	6	6.3	V
		$I_o=1mA-70mA$					
Load Regulation	$\Delta V_o$	$I_o=1mA-100mA$	25°C	-	16	80	mV
		$I_o=1mA-40mA$	25°C	-	9	40	
Line Regulation	$\Delta V_o$	$8V \leq V_i \leq 20V$	25°C	-	35	175	mV
		$9V \leq V_i \leq 20V$	25°C	-	29	125	
Quiescent Current	$I_q$		25°C	-	3.9	6.0	mA
Quiescent Current Change	$\Delta I_q$	$9V \leq V_i \leq 20V$	0-125°C			1.5	mA
		$1mA \leq I_o \leq 40mA$	0-125°C			0.1	
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	25°C		46		$\mu V$
Ripple Rejection	RR	$9V \leq V_i \leq 19V, f=120Hz$	0-125°C	40	48	-	dB
Dropout Voltage	$V_d$		25°C		1.7	-	V



### PACKAGE INFORMATION

Dimension in TO-89-3 (Unit: mm)



Symbol	Min	Max
A	1.400	1.600
b	0.320	0.520
b1	0.400	0.580
c	0.350	0.440
D	4.400	4.600
D1	1.550 REF	
E	2.300	2.600
E1	3.940	4.250
e	1.500 TYP	
e1	3.000 TYP	
L	0.900	1.200



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