

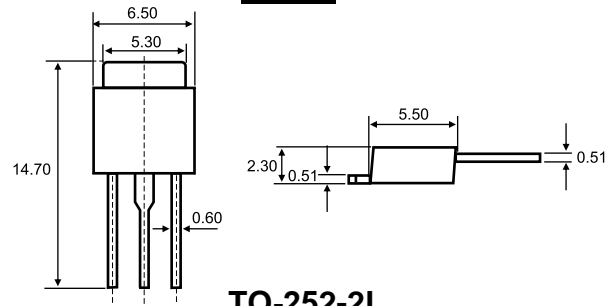
78M08

Three-terminal Positive Voltage Regulator

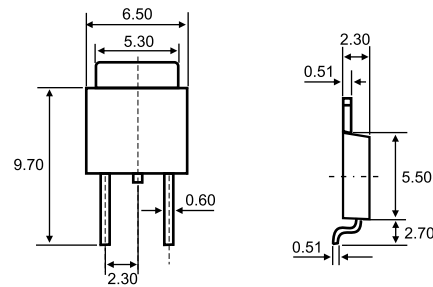
TO-251



1.IN
2.GND
3.OUT



TO-252-2L



Dimensions in inches and (millimeters)

Features

- ✧ Maximum Output current
 $I_{OM}: 0.5\text{ A}$
- ✧ Output voltage
 $V_O: 8\text{ V}$
- ✧ Continuous total dissipation
 $P_D: 1.25\text{ W (Ta = 25 }^\circ\text{C)}$

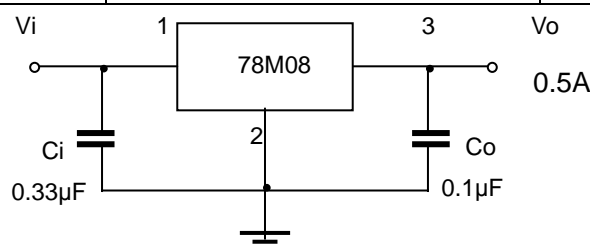
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_I	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($V_i=14\text{V}, I_o=350\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	25°C	7.7	8	8.3	V
		$10.5\text{V} \leq V_i \leq 23\text{V}, I_o=5\text{mA}-350\text{mA}$ $P_o \leq 15\text{W}$	0-125 $^\circ\text{C}$	7.6	8	8.4
Load Regulation	ΔV_o	$I_o=5\text{mA}-500\text{mA}$	25°C	20	160	mV
		$I_o=5\text{mA}-200\text{mA}$	25°C	10	80	mV
Line regulation	ΔV_o	$10.5\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	25°C	6	100	mV
		$11\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	25°C	2	50	mV
Quiescent Current	I_q		25°C	4.6	6	mA
Quiescent Current Change	ΔI_q	$10.5\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	0-125 $^\circ\text{C}$		0.8	mA
		$5\text{mA} \leq I_o \leq 350\text{mA}$	0-125 $^\circ\text{C}$		0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25°C	52		μV
Ripple Rejection	RR	$11.5\text{V} \leq V_i \leq 21.5\text{V}, f=120\text{Hz}, I_o=300\text{mA}$	0-125 $^\circ\text{C}$	56	80	dB
Dropout Voltage	V_d	$I_o=350\text{mA}$	25°C	2		V
Short Circuit Current	I_{sc}	$V_i=14\text{V}$	25°C	250		mA
Peak Current	I_{pk}		25°C	0.7		A

TYPICAL APPLICATION



Typical Characteristics

