

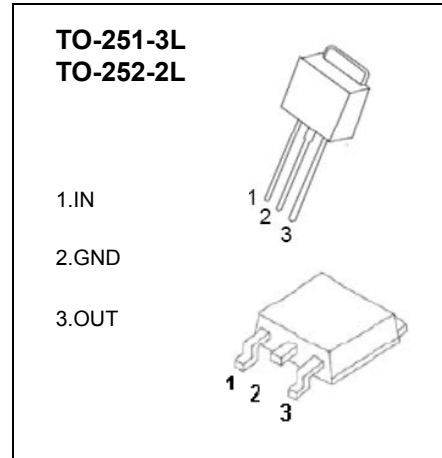


TO-251-3L/TO-252-2L Plastic-Encapsulate Regulators

78M08 Three-terminal positive voltage regulator

FEATURES

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



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

Parameter	Symbol	Value	Unit
Input Voltage	V_I	25	V
Operating Junction Temperature Range	T_{OPR}	0-+125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_I=14\text{V}$, $I_O=350\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Pa rameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo		25℃	7.7	8	8.3	V
		10.5≤V _i ≤23V, I _o =5mA-350mA P _o ≤ 15W	0-125℃	7.6	8	8.4	V
Load Regulation	ΔVo	I _o =5mA-500mA	25℃		20	160	mV
		I _o =5mA-200mA	25℃		10	80	mV
Line Regulation	ΔVo	10.5V≤V _i ≤25V, I _o =200mA	25℃		6	100	mV
		11V≤V _i ≤25V, I _o =200mA	25℃		2	50	mV
Quiescent Current	I _q		25℃		4.6	6	mA
Quiescent Current Change	ΔI _q	10.5V≤V _i ≤25V, I _o =200mA	0-125℃			0.8	mA
	ΔI _q	5mA≤I _o ≤350mA	0-125℃			0.5	mA
Output Noise Voltage	V _N	10Hz≤ f ≤100KHz	25℃		52		μV
Ripple Rejection	RR	11.5V≤V _i ≤21.5V,f=120Hz,I _o =300mA	0-125℃	56	80		dB
Dropout Voltage	V _d	I _o =350mA	25℃		2		V
Short Circuit Current	I _{sc}	V _i =14V	25℃		250		mA
Peak Current	I _{pk}		25℃		0.5		A

TYPICAL APPLICATION

