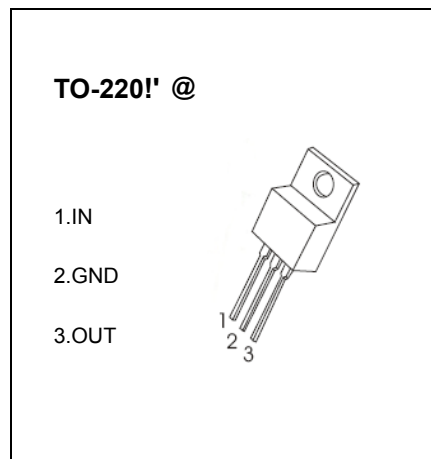


TO-220!' @Plastic-Encapsulate Regulators

CJ78M08 Three-terminal positive voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 0.5 A
- Output voltage
 V_O : 8V
- Continuous total dissipation
 P_D : 1.5 W ($T_a = 25\text{ }^\circ\text{C}$)
 15 W ($T_c = 25\text{ }^\circ\text{C}$)



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)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$25\text{ }^\circ\text{C}$	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	$I_o=5\text{mA}-500\text{mA}$	$25\text{ }^\circ\text{C}$	20	160	mV
		$I_o=5\text{mA}-200\text{mA}$	$25\text{ }^\circ\text{C}$	10	80	mV
Line Regulation	ΔV_o	$10.5\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	$25\text{ }^\circ\text{C}$	6	100	mV
		$11\text{V} \leq V_i \leq 25\text{V}, I_o=200\text{mA}$	$25\text{ }^\circ\text{C}$	2	50	mV
Quiescent Current	I_q	$25\text{ }^\circ\text{C}$		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	$10\text{Hz} \leq f \leq 100\text{KHz}$	$25\text{ }^\circ\text{C}$	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	$I_o=350\text{mA}$	$25\text{ }^\circ\text{C}$	2		V
Short Circuit Current	I_{sc}	$V_i=14\text{V}$	$25\text{ }^\circ\text{C}$	250		mA
Peak Current	I_{pk}	$25\text{ }^\circ\text{C}$		0.5		A

TYPICAL APPLICATION

