



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

JCST

TO-220 Plastic-Encapsulate Transistors

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 ($T_a = 25^\circ\text{C}$)

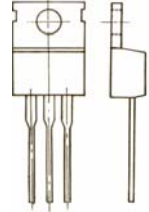
15 W ($T_c = 25^\circ\text{C}$)

TO-220

1.IN

2.GND

3.OUT



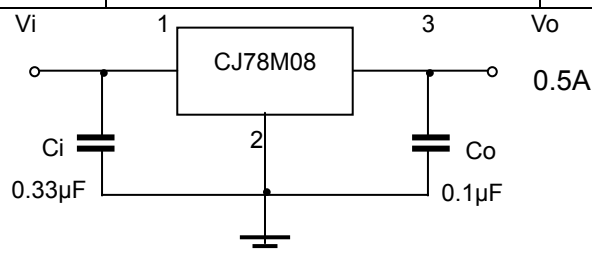
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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°C	7.7	8	8.3	V
		$10.5 \leq V_i \leq 23\text{V}$, $I_o=5\text{mA}-350\text{mA}$ $P_o \leq 15\text{W}$	$0-125^\circ\text{C}$	7.6	8	8.4	V
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
	ΔI_q	$5\text{mA} \leq I_o \leq 350\text{mA}$	$0-125^\circ\text{C}$			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		0.5		A

TYPICAL APPLICATION



Typical Characteristics

CJ78MXX

