



TO-251/TO-252-2L Plastic-Encapsulate Transistors

CJ78M08 Three-terminal positive voltage regulator

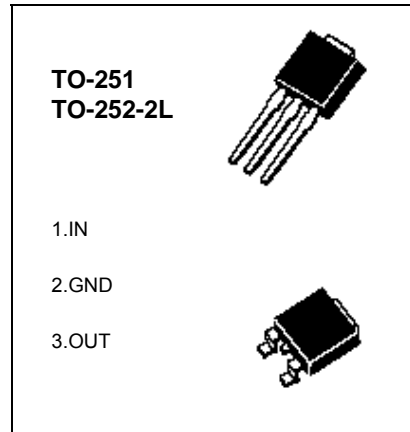
FEATURES

Maximum Output current

I_{OM} : 0.5 A

Output voltage

V_o : 8V



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	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS($V_i=14V, I_o=350mA, 0^\circ C < T_j < 125^\circ C, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

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

TYPICAL APPLICATION

