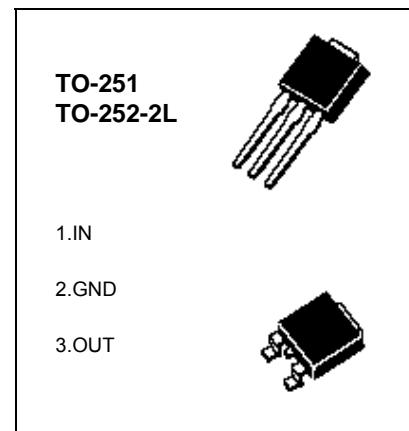


TO-251/TO-252-2L Plastic-Encapsulate Transistors**CJ78M08** Three-terminal positive voltage regulator**FEATURES**

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
<b>Input Voltage</b>	$V_I$	35	V
<b>Operating Junction Temperature Range</b>	$T_{OPR}$	0+125	°C
<b>Storage Temperature Range</b>	$T_{STG}$	-65+150	°C

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
<b>Output voltage</b>	$V_o$	$T_j=25°C$	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
<b>Load Regulation</b>	$\Delta V_o$	$T_j=25°C$ , $I_o=5mA-500mA$		20	160	mV
		$T_j=25°C$ , $I_o=5mA-200mA$		10	80	mV
<b>Line regulation</b>	$\Delta V_o$	$10.5 \leq V_i \leq 25V$ , $I_o=200mA$		6	100	mV
		$11V \leq V_i \leq 25V$ , $I_o=200mA$		2	50	mV
<b>Quiescent Current</b>	$I_q$	$T_j=25°C$		4.6	6	mA
<b>Quiescent Current Change</b>	$\Delta I_q$	$10.5V \leq V_i \leq 25V$ , $I_o=200mA$			0.8	mA
	$\Delta I_q$	$5mA \leq I_o \leq 350mA$			0.5	mA
<b>Output Noise Voltage</b>	$V_N$	$10Hz \leq f \leq 100KHz$		52		uV
<b>Ripple Rejection</b>	$RR$	$11.5V \leq V_i \leq 21.5V$ , $f=120Hz$ , $I_o=300mA$ $T_j=25°C$	56	80		dB
<b>Dropout Voltage</b>	$V_d$	$T_j=25°C$ , $I_o=350mA$		2		V
<b>Short Circuit Current</b>	$I_{sc}$	$V_i=14V$ , $T_a=25°C$		250		mA
<b>Peak Current</b>	$I_{pk}$	$T_j=25°C$		0.7		A

**TYPICAL APPLICATION**