

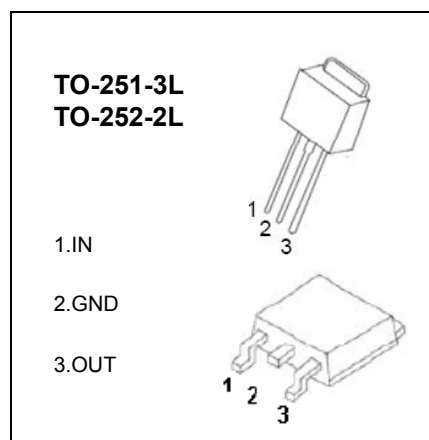


## TO-251-3L/TO-252-2L Plastic-Encapsulate Regulators

### **CJ78M05** Three-terminal positive voltage regulator

#### FEATURES

- Maximum output current  
 $I_{OM}$ : 0.5 A
- Output voltage  
 $V_O$ : 5V
- Continuous total dissipation  
 $P_D$ : 1.25 W



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

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=10V, I_o=350mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$25^\circ C$	4.8	5	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA-350mA$ $P_o \leq 15W$	4.75	5	5.25	V
Load Regulation	$\Delta V_o$	$I_o=5mA-0.5A$ $25^\circ C$		15	100	mV
		$I_o=5mA-200mA$ $25^\circ C$		5	50	mV
Line Regulation	$\Delta V_o$	$7V \leq V_i \leq 25V, I_o=200mA$ $25^\circ C$		3	100	mV
		$8V \leq V_i \leq 25V, I_o=200mA$ $25^\circ C$		1	50	mV
Quiescent Current	$I_q$	$25^\circ C$		4.2	6	mA
Quiescent Current Change	$\Delta I_q$	$8V \leq V_i \leq 25V, I_o=200mA$ $0-125^\circ C$			0.8	mA
	$\Delta I_q$	$5mA \leq I_o \leq 350mA$ $0-125^\circ C$			0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$ $25^\circ C$		40	200	$\mu V$
Ripple Rejection	RR	$8V \leq V_i \leq 18V, f=120Hz, I_o=300mA$ $0-125^\circ C$	62	80		dB
Dropout Voltage	$V_d$	$I_o=350mA$ $25^\circ C$		2	2.5	V
Short Circuit Current	$I_{sc}$	$V_i=10V$ $25^\circ C$		300		mA
Peak Current	$I_{pk}$	$25^\circ C$		0.5		A

#### TYPICAL APPLICATION

