

TO-220 Plastic-Encapsulate Transistors

CJ78M05 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

I_{OM} : 0.5 A

Output voltage

V_o : 5V

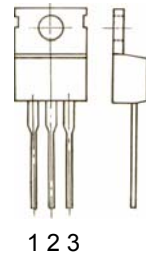
Continuous total dissipation

P_D : 1.5 W ($T_a = 25^\circ\text{C}$)

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

TO-220

1. IN
2. GND
3. OUT



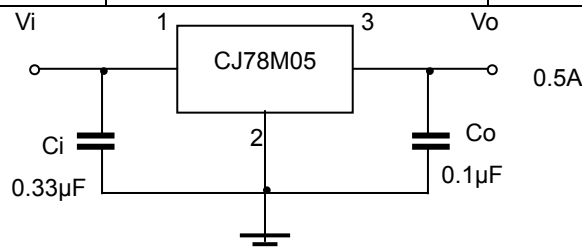
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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 ($V_i=10\text{V}$, $I_o=350\text{mA}$, $C_i=0.33\mu\text{F}$, $C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	25°C	4.8	5	5.2	V
		$7\text{V} \leq V_i \leq 20\text{V}$, $I_o=5\text{mA}-350\text{mA}$				
		$P_o \leq 15\text{W}$	4.75	5	5.25	V
Load Regulation	ΔV_o	$I_o=5\text{mA}-0.5\text{A}$		15	100	mV
		$I_o=5\text{mA}-200\text{mA}$		5	50	mV
Line regulation	ΔV_o	$7\text{V} \leq V_i \leq 25\text{V}$, $I_o=200\text{mA}$		3	100	mV
		$8\text{V} \leq V_i \leq 25\text{V}$, $I_o=200\text{mA}$		1	50	mV
Quiescent Current	I_q	25°C		4.2	6	mA
Quiescent Current Change	ΔI_q	$8\text{V} \leq V_i \leq 25\text{V}$, $I_o=200\text{mA}$			0.8	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 350\text{mA}$			0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		40	200	μV
Ripple Rejection	RR	$8\text{V} \leq V_i \leq 18\text{V}$, $f=120\text{Hz}$, $I_o=300\text{mA}$	62	80		dB
Dropout Voltage	V_d	$I_o=350\text{mA}$		2	2.5	V
Short Circuit Current	I_{sc}	$V_i=10\text{V}$		300		mA
Peak Current	I_{pk}	25°C		0.5		A

TYPICAL APPLICATION



Typical Characteristics

CJ78MXX

