

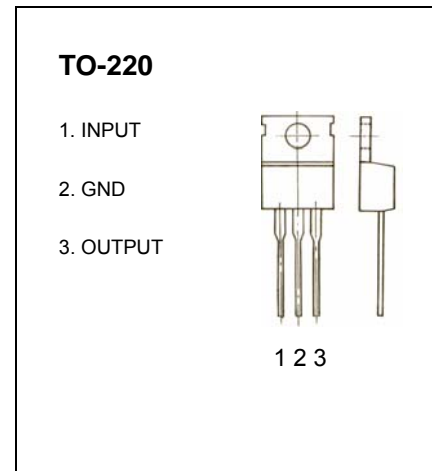


## TO-220 Plastic-Encapsulate Transistors

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

#### FEATURES

Maximum Output current			
$I_{OM}$ :	0.5	A	
Output voltage			
$V_o$ :	5	V	



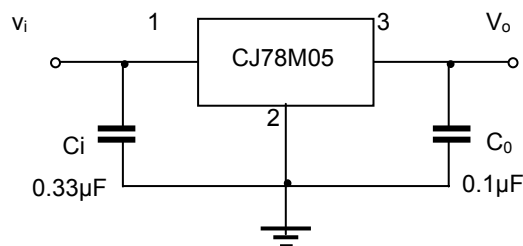
#### ABSOLUTE MAXIMUM RATINGS(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_i$	7~25	V
Storage Temperature Range	$T_{stg}$	-85 to 150	°C

#### ELECTRICAL CHARACTERISTICS ( $V_i=10V, I_o=350mA, 0^\circ C < T_j < 125^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified )

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j=25^\circ C$	4.8	5.0	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA \sim 350mA$	4.75	5	5.25	V
Load Regulation	$\Delta V_o$	$T_j=25^\circ C, I_o=5mA \sim 500mA$			100	mV
		$T_j=25^\circ C, I_o=5mA \sim 200mA$			50	mV
Line regulation	$\Delta V_o$	$7V \leq V_i \leq 25V, I_o=200mA, T_j=25^\circ C$			100	mV
		$8V \leq V_i \leq 25V, I_o=200mA, T_j=25^\circ C$			50	mV
Quiescent Current	$I_q$	$T_j=25^\circ C$			6	mA
Quiescent Current Change	$\Delta I_q$	$8V \leq V_i \leq 25V, I_o=200mA$			0.8	mA
	$\Delta I_q$	$5mA \leq I_o \leq 350mA$			0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz, T_j=25^\circ C$		40	200	$\mu V$
Dropout Voltage	$V_d$	$T_j=25^\circ C$		0.7		V

#### TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.