



TO-220 Plastic-Encapsulate Transistors

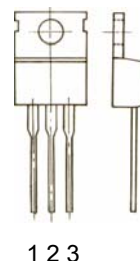
CJ78M05 Three-terminal positive voltage regulator

FEATURES

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

TO-220

1. INPUT
2. GND
3. OUTPUT



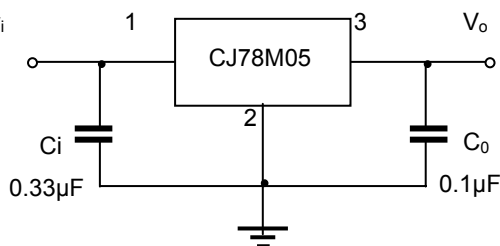
ABSOLUTE MAXIMUM RATINGS(Operating temperature range applies unless otherwise specified)

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	ΔV_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	ΔV_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	ΔI_q	$8V \leq V_i \leq 25V, I_o=200mA$			0.8	mA
	ΔI_q	$5mA \leq I_o \leq 350mA$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz, T_j=25^{\circ}C$		40	200	μV
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.