



ZHEJIANG UNIÜ-NE Technology CO., LTD
浙江宇力微新能源科技有限公司



78M05 Data Sheet

V 1.2

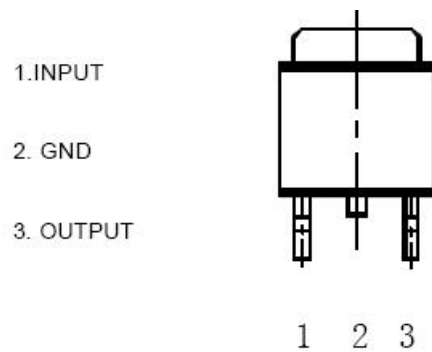
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78M05 Three-terminal positive Voltage Regulator

Features

- Output Current in Excess of 0.5A
- Output Voltage is 5V
- Internal thermal Overload protection
- Internal Short Circuit Current Limiting

PIN Connection



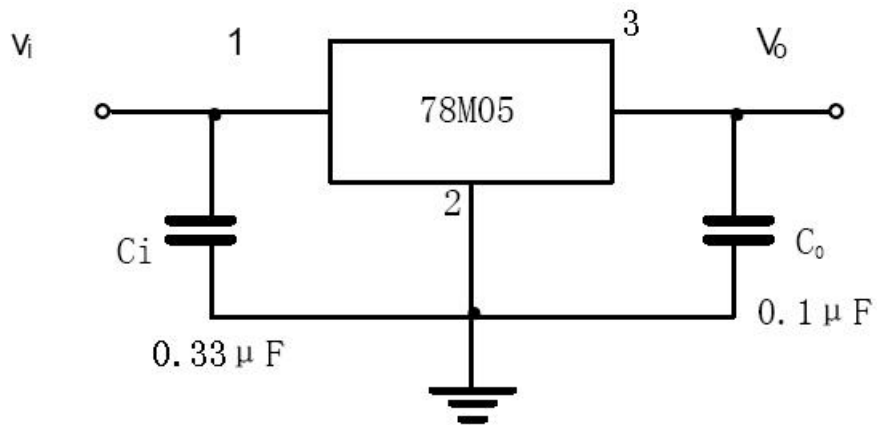
Absolute Maximum Ratings (Ta=25°C)

Characteristics	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Temperature	T_{opr}	-40~105	°C
Storage Temperature	T_{stg}	-55~150	°C

Electrical Characteristics

(unless otherwise noted, $V_i=10V$, $I_o=350mA$, $-30^{\circ}C < T_j < 85^{\circ}C$, $C_1=0.33\mu F$, $C_o=0.1\mu F$)

Characteristics	Symbol	Test Conditions	Min.	Typ.	Max	Unit
Output Voltage	V_o	$T_j=25^{\circ}C$	4.9	5.0	5.1	V
		$7V \leq V_i \leq 20V$, $I_o=5mA \sim 350mA$	4.9	5.0	5.1	
Load Regulation	ΔV_o	$T_j=25^{\circ}C$, $I_o=5mA \sim 500mA$		25	100	mV
		$T_j=25^{\circ}C$, $I_o=5mA \sim 200mA$		10	50	
Line Regulation	ΔV_o	$7V \leq V_i \leq 25V$, $I_o=200mA$, $T_j=25^{\circ}C$		4	100	mV
		$8V \leq V_i \leq 25V$, $I_o=200mA$, $T_j=25^{\circ}C$		2	50	
Quiescent Current	I_q	$T_j=25^{\circ}C$		4	6	mA
Quiescent Current Change	ΔI_q	$8V \leq V_i \leq 25V$, $I_o=200mA$			0.8	mA
		$5mA \leq I_o \leq 350mA$			0.5	
Output Noise Voltage	V_N	$10Hz \leq f \leq 100kHz$, $T_j=25^{\circ}C$		40	200	μV
Dropout Voltage	V_d	$T_j=25^{\circ}C$		2		V
Ripple Rejection	RR	$8V \leq V_i \leq 18V$, $f=120Hz$, $I_o=300mA$, $T_j=25^{\circ}C$	56	80		dB
Short Circuit Current Limit	I_{sc}	$T_j=25^{\circ}C$		1.5		A

Application Circuit

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

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1、Version Record

DATE	REV.	DESCRIPTION
2018/07/14	1.0	First Release
2019/07/13	1.1	Layout adjustment
2025/09/09	1.2	Parameter Optimization

2、Contact

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