



## TO-252 Encapsulate Three-terminal Voltage Regulator

### CJ78M05 Three-terminal positive voltage regulator

#### FEATURES

Maximum Output current

$I_{OM} : 0.5 \text{ A}$

Output voltage

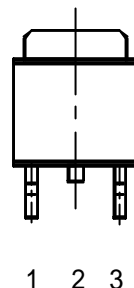
$V_o : 5 \text{ V}$

#### TO-252

1.INPUT

2. GND

3. OUTPUT



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

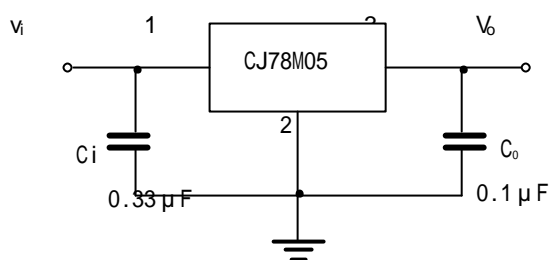
Parameter	Symbol	Value	Units
Input Voltage	$V_i$	7~25	V
Storage Temperature Range	$T_{stg}$	-85 to 150	

#### ELECTRICAL CHARACTERISTICS

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

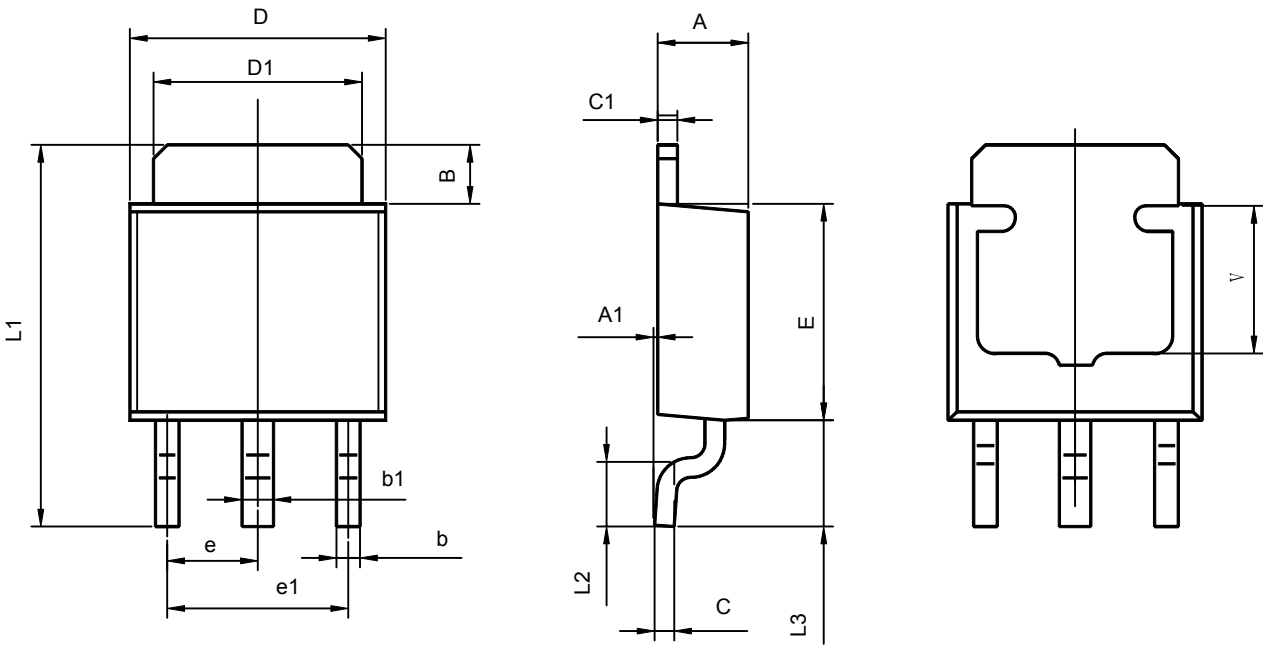
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j=25^\circ C$	4.8	5.0	5.2	V
		7V $V_i$ 20V, $I_o=5mA-350mA$	4.75	5	5.25	V
Load Regulation	$V_o$	$T_j=25^\circ C, I_o=5mA-500mA$			100	mV
		$T_j=25^\circ C, I_o=5mA-200mA$			50	mV
Line regulation	$V_o$	7V $V_i$ 25V, $I_o=200mA, T_j=25^\circ C$			100	mV
		8V $V_i$ 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	$I_q$	8V $V_i$ 25V, $I_o=200mA$			0.8	mA
	$I_q$	5mA $I_o$ 350mA			0.5	mA
Output Noise Voltage	$V_n$	10Hz $f$ 100KHz, $T_j=25^\circ C$		40		$\mu V$
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.

TO-252-3L PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300TYP		0.091TYP	
e1	4.500	4.700	0.177	0.185
L1	9.500	9.900	0.374	0.390
L2	1.400	1.780	0.055	0.070
L3	2.550	2.900	0.100	0.114
V	3.80REF		0.150REF	