



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

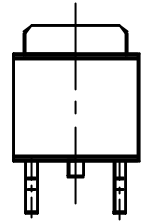
$V_o : 5 \text{ V}$

TO-252

1.INPUT

2. GND

3. OUTPUT



1 2 3

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

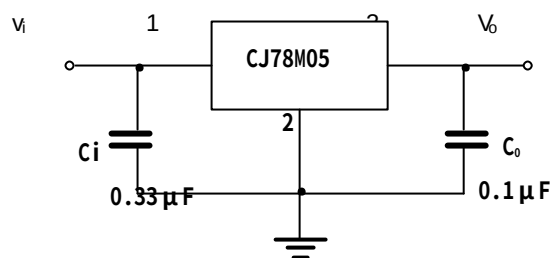
Parameter	Symbol	Value	Units
Input Voltage	V_i	7~25	V
Storage Temperature Range	T_{stg}	-85 to 150	°C

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)

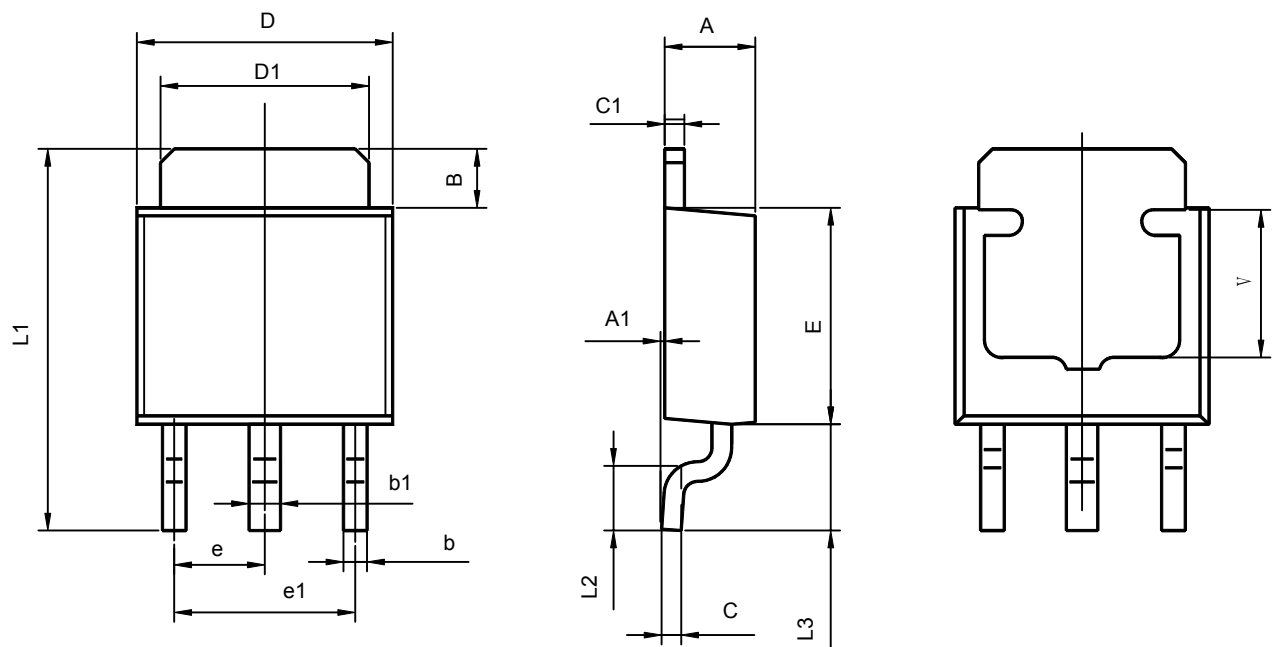
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	4.8	5.0	5.2	V
		$7V \leq V_i \leq 20V, I_o=5mA-350mA$	4.75	5	5.25	V
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=5mA-500mA$			100	mV
		$T_j=25^\circ C, I_o=5mA-200mA$			50	mV
Line regulation	ΔV_o	$7V \leq V_i \leq 25V, I_o=200mA, T_j=25^\circ C$			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		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.

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	