



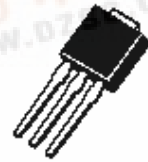
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-251/TO-252-2L Plastic-Encapsulate Transistors**CJ78M09** Three-terminal positive voltage regulator**FEATURES**

Maximum Output current

 I_{OM} : 0.5 A

Output voltage

 V_O : 9VTO-251
TO-252-2L

1.IN

2.GND

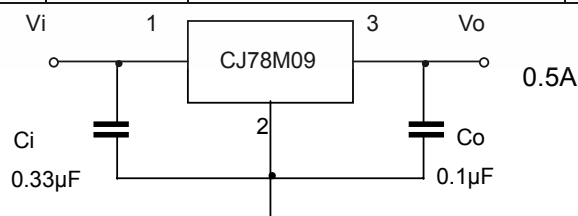
3.OUT

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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0-+125	°C
Storage Temperature Range	T_{STG}	-65-+150	°C

ELECTRICAL CHARACTERISTICS($V_i=16V, I_o=350mA, 0^\circ C < T_j < 125^\circ C, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	8.65	9	9.35	V
		$11.5V \leq V_i \leq 24V, I_o=5mA-350mA$ $P_o \leq 15W$	8.55	9	9.45	V
Load Regulation	ΔV_o	$T_j=25^\circ C, I_o=5mA-500mA$		20	180	mV
		$T_j=25^\circ C, I_o=5mA-200mA$		10	90	mV
Line regulation	ΔV_o	$11.5V \leq V_i \leq 26V, I_o=200mA$		6	100	mV
		$12V \leq V_i \leq 26V, I_o=200mA$		2	50	mV
Quiescent Current	I_q	$T_j=25^\circ C$		4.6	6	mA
Quiescent Current Change	ΔI_q	$11.5V \leq V_i \leq 26V, I_o=200mA$			0.8	mA
	ΔI_q	$5mA \leq I_o \leq 350mA$			0.5	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		60		μV
Ripple Rejection	RR	$13 \leq V_i \leq 23V, f=120Hz, I_o=300mA$ $T_j=25^\circ C$		56	80	dB
Dropout Voltage	V_d	$T_j=25^\circ C, I_o=350mA$		2		V
Short Circuit Current	I_{sc}	$V_i=16V, T_a=25^\circ C$		250		mA
Peak Current	I_{pk}	$T_j=25^\circ C$		0.7		A

TYPICAL APPLICATION

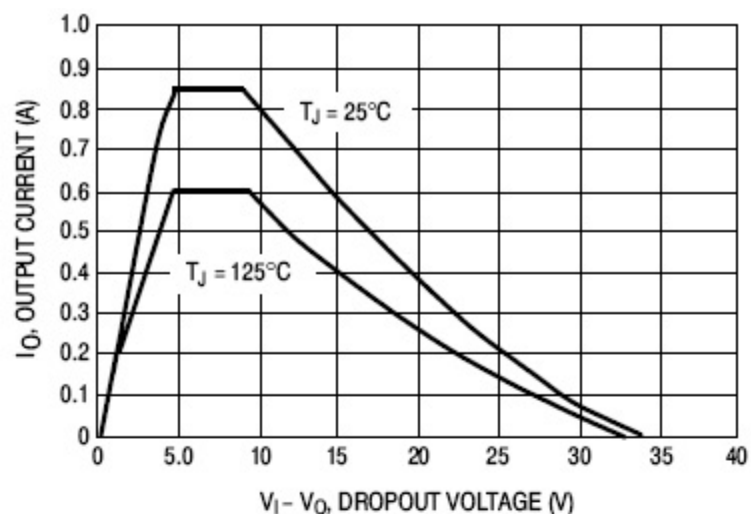


Figure 1. Peak Output Current versus Dropout Voltage

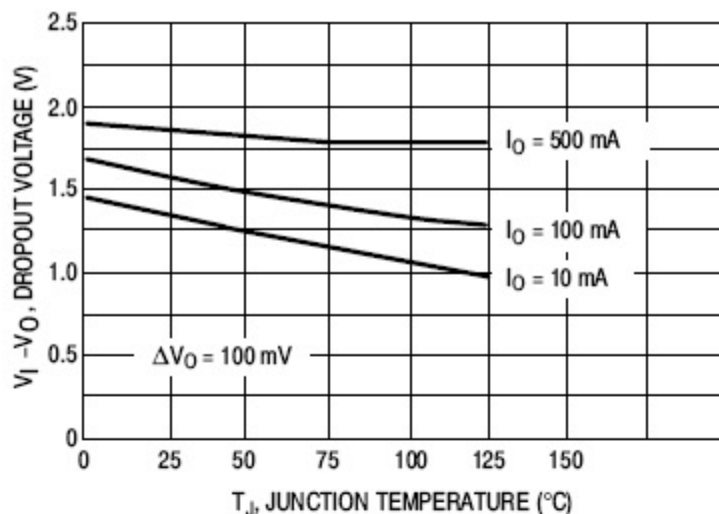


Figure 2. Dropout Voltage versus Junction Temperature

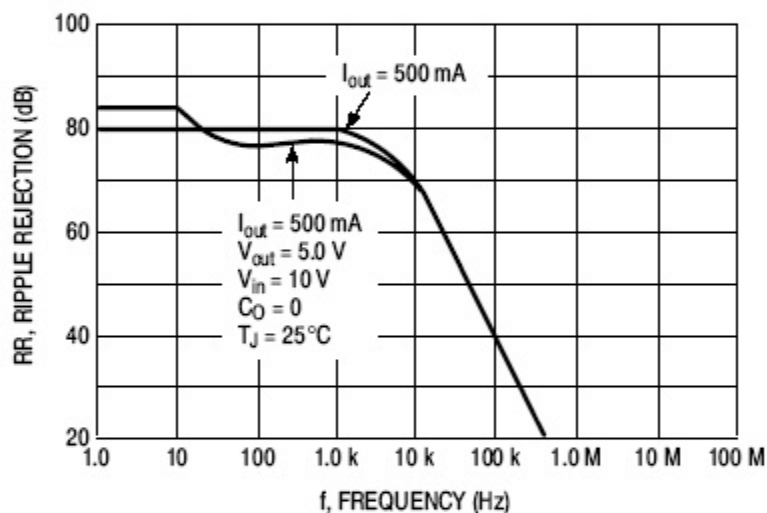


Figure 3. Ripple Rejection versus Frequency

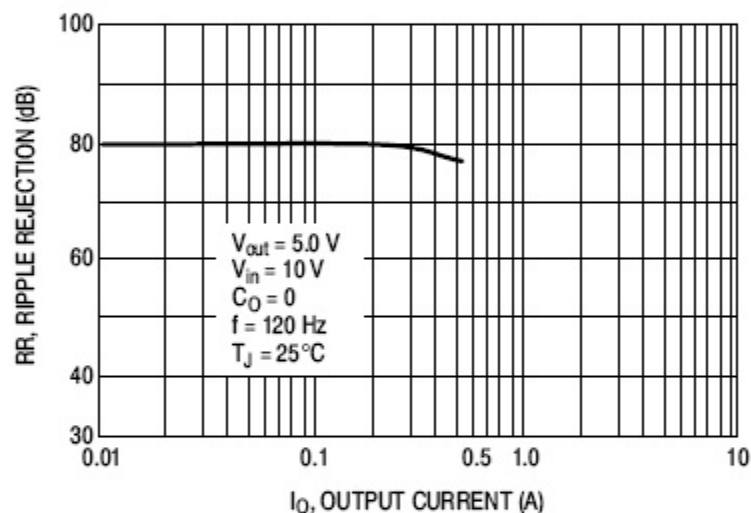


Figure 4. Ripple Rejection versus Output Current

