



SOT-23-3L Encapsulate Three Terminal Voltage Regulator

CJ78L09 Three-terminal positive voltage regulator

FEATURES

Maximum Output current

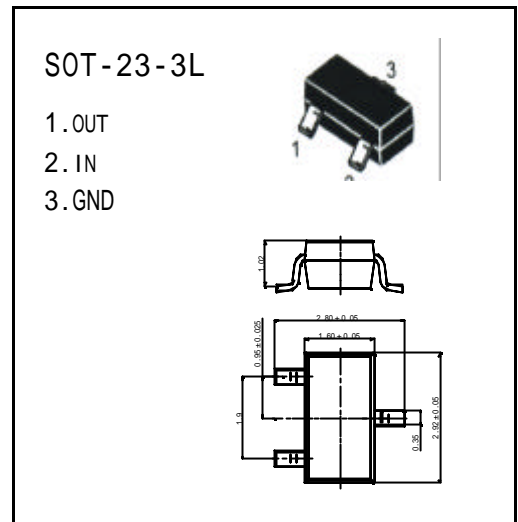
I_{OM} : 0.1 A

Output voltage

V_o : 9 V

Operating and storage junction temperature range

T_J, T_{stg} : -55 to +150



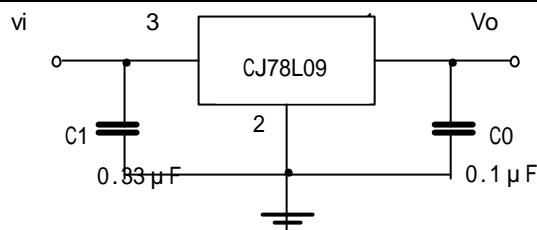
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0 +125	
Storage Temperature Range	T_{STG}	-55 +150	

ELECTRICAL CHARACTERISTICS ($V_I=15V, I_o=40mA, 0 < T_J < 125, C_1=0.33 \mu F, C_o=0.1 \mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25$	8.64	9.0	9.36	V
		$7V < V_I < 20V, I_o=1mA-40mA$	8.55	9.0	9.45	V
		$7V < V_I < V_{MAX}, I_o=1mA-70mA$	8.55	9.0	9.45	V (note)
Load Regulation	V_o	$T_j=25, I_o=1mA-100mA$		19	90	mV
		$T_j=25, I_o=1mA-40mA$		11	40	mV
Line regulation	V_o	$12V < V_I < 24V, T_j=25$		45	175	mV
		$13V < V_I < 24V, T_j=25$		40	125	mV
Quiescent Current	I_q			4.1	6.0	mA
Quiescent Current Change	I_q	$8V < V_I < 20V$			1.5	mA
	I_q	$1mA < V_I < 40mA$			0.1	mA
Output Noise Voltage	V_n	10Hz f 100KHz		58		uV
Ripple Rejection	RR	$15V < V_I < 25V, f=120Hz, T_j=25$		45		dB
Dropout Voltage	V_d	$T_j=25$		1.7		V

TYPICAL APPLICATION



Note 1: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators