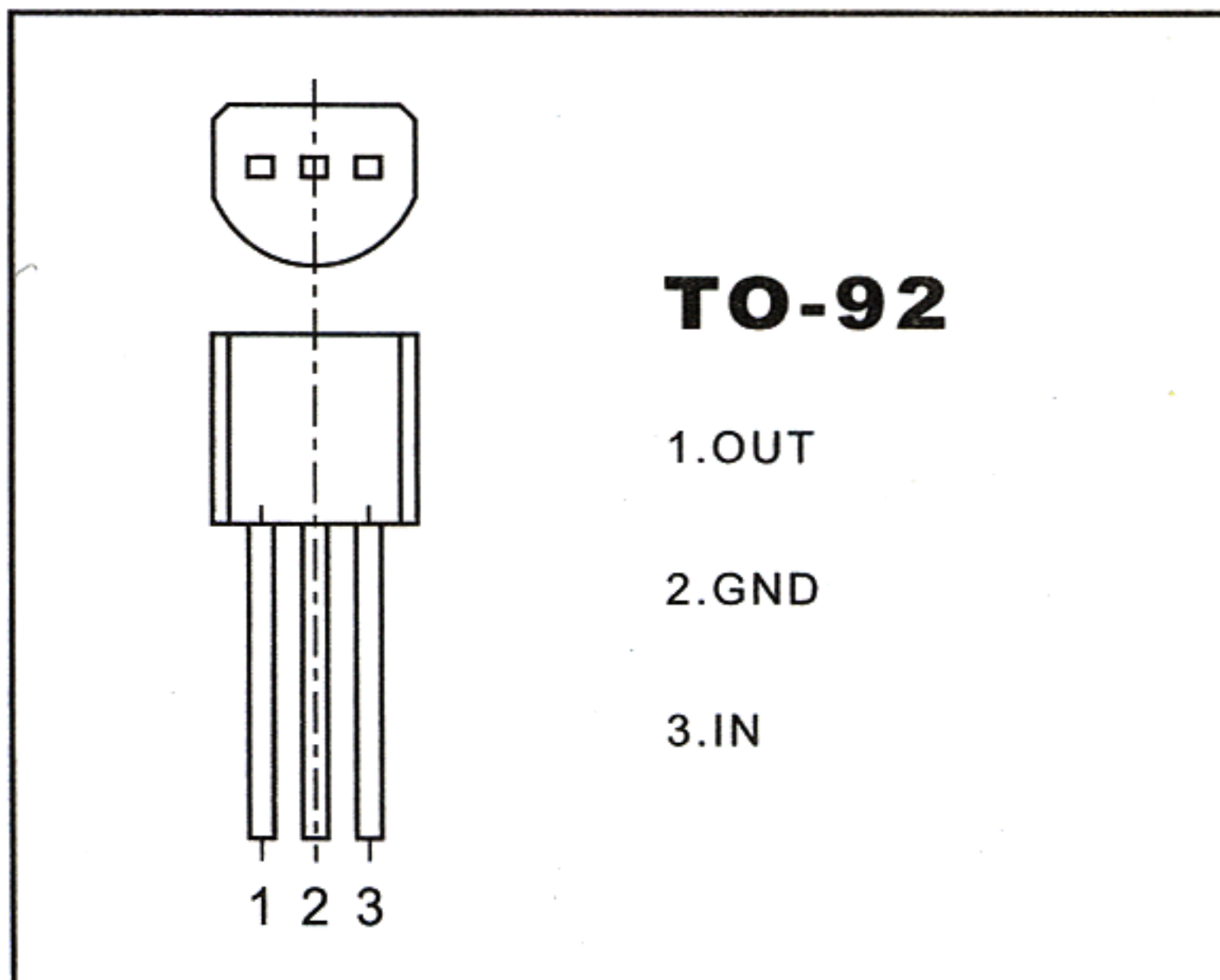


Three-Terminal Low Current Voltage Regulators

CJ78L08 Three-terminal positive voltage regulator



FEATURES

Maximum Output current

I_{OM} : 0.1 A

Output voltage

V_o : 8 V

ABSOLUTE MAXIMUM RATINGS

(Operating temperature range applies unless otherwise specified)

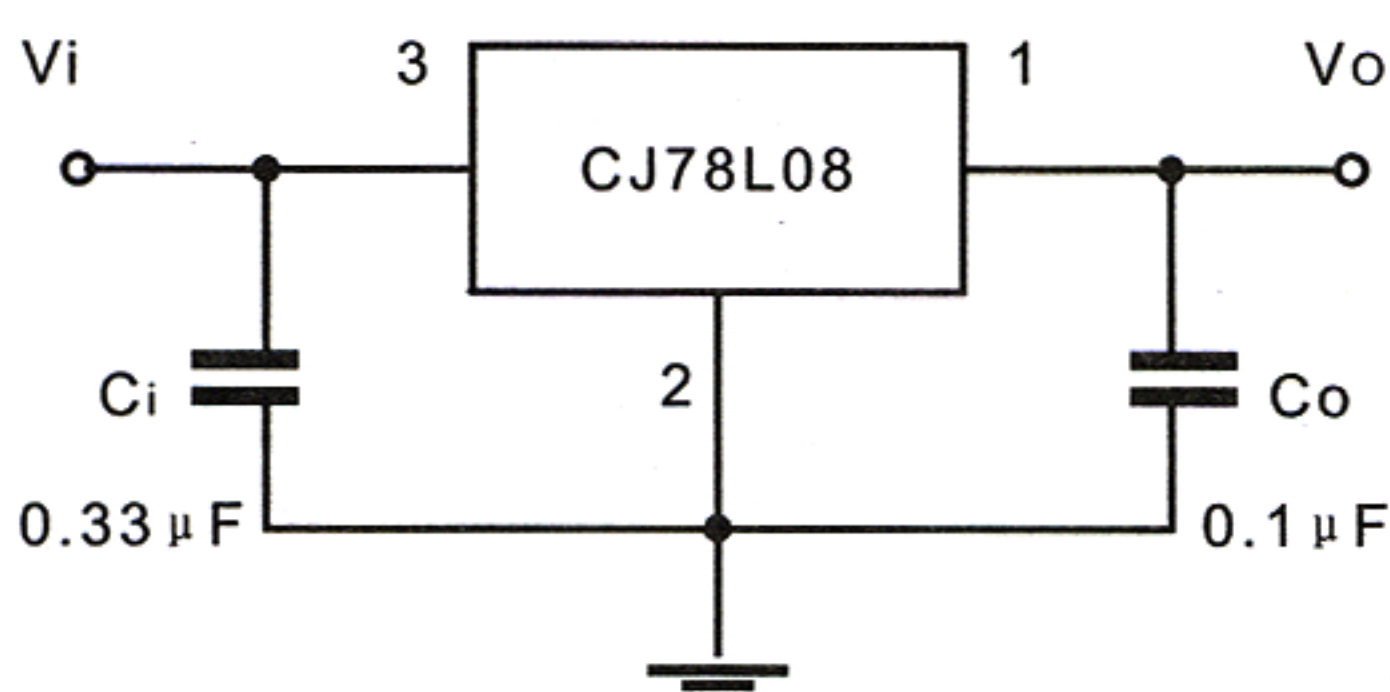
Parameter	Symbol	Value	Units
Input voltage	V_i	30	V
Operating junction temperature range	T_{opr}	-20-+120	°C
Storage temperature range	T_{stg}	-55-+150	°C

ELECTRICAL CHARACTERISTICS

($V_i=14V$, $I_o=40mA$, $0^\circ C < T_j < 125^\circ C$, $C_1=0.33 \mu F$, $C_o=0.1 \mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_j=25^\circ C$	7.7	8.0	8.3	V
		$10.5V \leq V_i \leq 23V$, $I_o=1mA \sim 40mA$	7.6		8.4	V
		$10.5V \leq V_i \leq V_{MAX}$, $I_o=1mA \sim 70mA$	7.6		8.4	V(note)
Load regulation	ΔV_o	$T_j=25^\circ C$, $I_o=1mA \sim 100mA$		15	80	mV
		$T_j=25^\circ C$, $I_o=1mA \sim 70mA$		8.0	40	mV
Line regulation	ΔV_o	$10.5V \leq V_i \leq 23V$, $T_j=25^\circ C$		10	175	mV
		$11V \leq V_i \leq 23V$, $T_j=25^\circ C$		8	125	mV
Quiescent current	I_q			2.0	5.5	mA
Quiescent current change	ΔI_q	$11V \leq V_i \leq 23V$			1.5	mA
		$1mA \leq I_o \leq 40mA$			0.1	mA
Output noise voltage	V_N	$10Hz \leq f \leq 100KHz$		49		μV
Ripple rejection	RR	$11V \leq V_i \leq 23V$, $f=120Hz$, $T_j=25^\circ C$	39	70		dB
Dropout voltage	V_d	$T_j=25^\circ C$		1.7		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.