

### WEJ78L08 Three-terminal positive voltage regulator

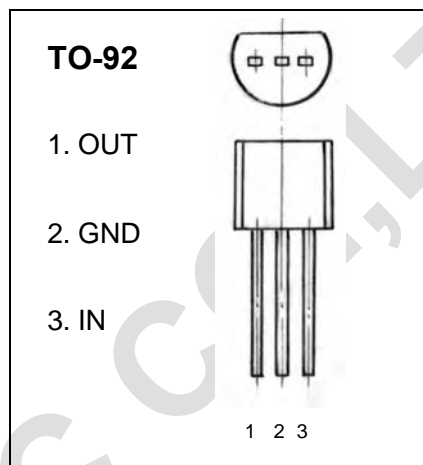
#### FEATURES

Maximum Output current

$I_{OM}$ : 0.1 A

Output voltage

$V_o$ : 8 V



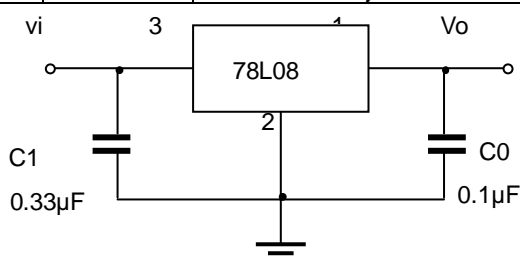
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	°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	8.0	8.4	V
		$10.5V \leq V_I \leq 23V, I_o=1mA \sim 70mA$	7.6	8.0	8.4	V (note)
Load Regulation	$\Delta V_o$	$T_j=25^\circ C, I_o=1mA \sim 100mA$		18	80	mV
		$T_j=25^\circ C, I_o=1mA \sim 40mA$		10	40	mV
Line regulation	$\Delta V_o$	$10.5V \leq V_I \leq 23V, T_j=25^\circ C$		42	175	mV
		$11V \leq V_I \leq 23V, T_j=25^\circ C$		36	125	mV
Quiescent Current	$I_q$	$T_j=25^\circ C$		4	6	mA
Quiescent Current Change	$\Delta I_q$	$11V \leq V_I \leq 23V$			1.5	mA
	$\Delta I_q$	$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		54		uV
Ripple Rejection	RR	$13V \leq V_I \leq 23V, f=120Hz, T_j=25^\circ C$	37	46		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.