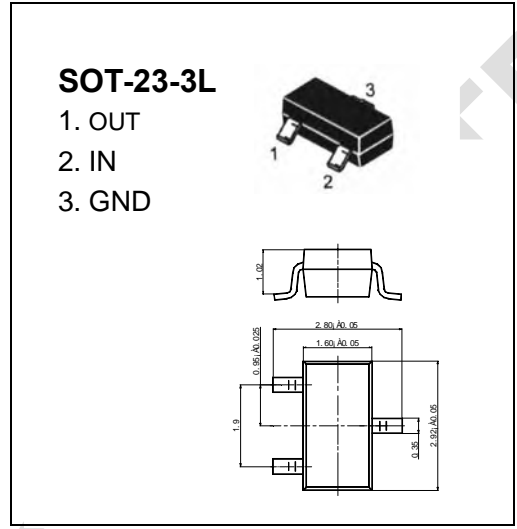


### WEJ78L08 Three-terminal positive voltage regulator

#### FEATURE

- Maximum Output current  
 $I_{OM}: 0.1 \text{ A}$
- Output voltage  
 $V_o: 8 \text{ V}$
- Operating and storage junction temperature range  
 $T_J, T_{stg}: -55^\circ\text{C to } +150^\circ\text{C}$



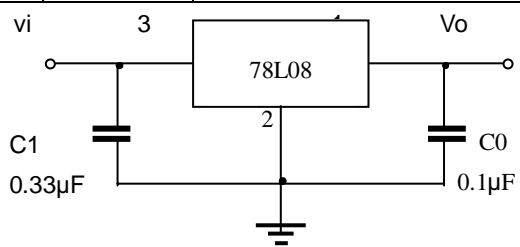
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_I$	30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $V_I=14\text{V}, I_o=40\text{mA}, 0^\circ\text{C}<T_J<125^\circ\text{C}, C_1=0.33\mu\text{F}, C_o=0.1\mu\text{F}$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_J=25^\circ\text{C}$	7.7	8.0	8.3	V
		$10.5\text{V} \leq V_I \leq 23\text{V}, I_o=1\text{mA} \sim 40\text{mA}$	7.6	8.0	8.4	V
		$10.5\text{V} \leq V_I \leq V_{MAX}, I_o=1\text{mA} \sim 70\text{mA}$	7.6	8.0	8.4	V (note)
Load Regulation	$\Delta V_o$	$T_J=25^\circ\text{C}, I_o=1\text{mA} \sim 100\text{mA}$		18	80	mV
		$T_J=25^\circ\text{C}, I_o=1\text{mA} \sim 70\text{mA}$		10	40	mV
Line regulation	$\Delta V_o$	$10.5\text{V} \leq V_I \leq 23\text{V}, T_J=25^\circ\text{C}$		42	175	mV
		$11\text{V} \leq V_I \leq 23\text{V}, T_J=25^\circ\text{C}$		36	125	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$		4	6	mA
Quiescent Current Change	$\Delta I_q$	$11\text{V} \leq V_I \leq 23\text{V}$			1.5	mA
	$\Delta I_q$	$1\text{mA} \leq V_I \leq 40\text{mA}$			0.1	mA
Output Noise Voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$		54		$\mu\text{V}$
Ripple Rejection	RR	$13\text{V} \leq V_I \leq 23\text{V}, f=120\text{Hz}, T_J=25^\circ\text{C}$	39	70		dB
Dropout Voltage	$V_d$	$T_J=25^\circ\text{C}$		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.