



**SOT-23-3L Encapsulate Three Terminal Voltage Regulator**

**CJ78L12** Three-terminal positive voltage regulator

**FEATURES**

Maximum Output current			
$I_{OM}$ :	0.1	A	
Output voltage			
$V_o$ :	12	V	

**SOT-23-3L**



- 1. OUT
- 2. IN
- 3. GND

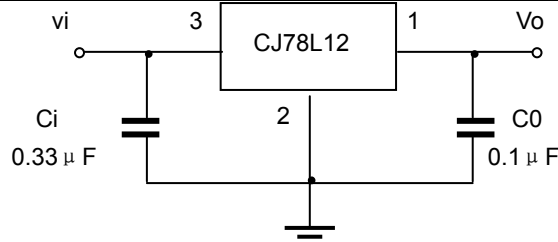
**ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)**

Parameter	Symbol	Value	Units
Input Voltage	$V_I$	35	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	°C
Storage Temperature Range	$T_{STG}$	-55~+150	°C

**ELECTRICAL CHARACTERISTICS ( $V_I=19V, I_o=40mA, 0^\circ C < T_j < 125^\circ C, C_1=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j=25^\circ C$	11.5	12	12.5	V
		$14V \leq V_I \leq 27V, I_o=1mA \sim 40mA$	11.4	12	12.6	V
		$14V \leq V_I \leq 27V, I_o=1mA \sim 70mA$	11.4	12	12.6	V (note)
Load Regulation	$\Delta V_o$	$T_j=25^\circ C, I_o=1mA \sim 100mA$		22	100	mV
		$T_j=25^\circ C, I_o=1mA \sim 40mA$		13	50	mV
Line regulation	$\Delta V_o$	$14.5V \leq V_I \leq 27V, T_j=25^\circ C$		55	250	mV
		$16V \leq V_I \leq 27V, T_j=25^\circ C$		49	200	mV
Quiescent Current	$I_q$			4.3	6.5	mA
Quiescent Current Change	$\Delta I_q$	$16V \leq V_I \leq 27V$			1.5	mA
	$\Delta I_q$	$1mA \leq I_o \leq 40mA$			0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		70		$\mu V$
Ripple Rejection	RR	$15V \leq V_I \leq 25V, f=120Hz, T_j=25^\circ C$	37	42		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.