



## SOT-89 Encapsulate Three-terminal Voltage Regulator

### CJ79L15 Three-terminal positive voltage regulator

#### FEATURES

Maximum Output current

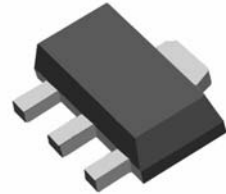
$I_{OM}$ : 100 mA

Output voltage

$V_O$ : -15 V

#### SOT-89

1. BASE
2. COLLECTOR
3. EMITTER



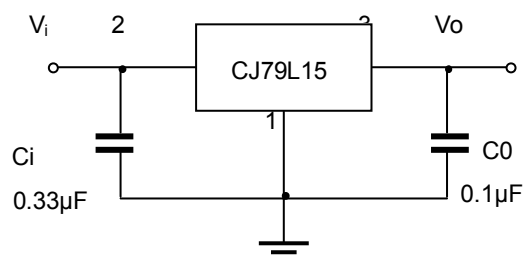
#### ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	$V_i$	-35	V
Operating Junction Temperature Range	$T_{OPR}$	-20~+120	°C
Storage Temperature Range	$T_{STG}$	-55~+150	°C

#### ELECTRICAL CHARACTERISTICS ( $V_i = -23V, I_o = 40mA, 0^\circ C < T_j < 125^\circ C, C_1 = 0.33\mu F, C_o = 0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j = 25^\circ C$	-14.4	-15	-15.6	V
		$-17.5V \leq V_i \leq -30V, I_o = 1mA \sim 40mA$	-14.25	-15	-15.75	V
		$V_i = -23V, I_o = 1mA \sim 70mA$	-14.25	-15	-15.75	(note)
Load Regulation	$\Delta V_o$	$T_j = 25^\circ C, I_o = 1mA \sim 100mA, V_i = -23V$		25	150	mV
		$T_j = 25^\circ C, I_o = 1mA \sim 40mA, V_i = -23V$		15	75	mV
Line regulation	$\Delta V_o$	$-17.5V \leq V_i \leq -30V, T_j = 25^\circ C, I_o = 40mA$		65	300	mV
		$-19V \leq V_i \leq -30V, T_j = 25^\circ C, I_o = 40mA$		5	250	mV
Quiescent Current	$I_q$	$T_j = 25^\circ C$			6.5	mA
Quiescent Current Change	$\Delta I_q$	$-19V \leq V_i \leq -30V, I_o = 40mA$			1.5	mA
	$\Delta I_q$	$1mA \leq I_o \leq 40mA, V_i = -23V$			0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		90		$\mu V$
Ripple Rejection	RR	$-18.5V \leq V_i \leq -28.5V, f = 120Hz, 25^\circ C \leq T_j \leq 125^\circ C$	34	39		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.