

TO-220 Plastic-Encapsulate Voltage Regulators

L7906 C V Three-terminal negative voltage regulator

FEATURES

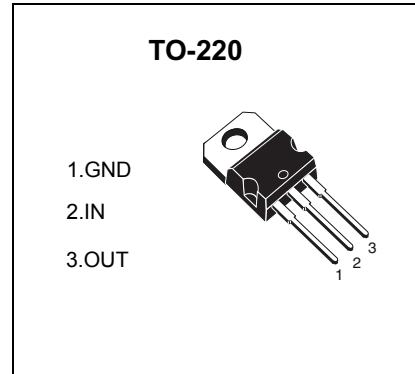
Maximum output current I_{OM} : 1.5 A

Output voltage V_o : -6 V

Continuous total dissipation

P_D : 1.5 W ($T_a = 25^\circ\text{C}$)

15 W ($T_c = 25^\circ\text{C}$)



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

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	83.3	$^\circ\text{C}/\text{W}$
Thermal Resistance from Junction to Case	$R_{\theta JC}$	8.33	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_{OPR}	0~+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i = -11\text{V}$, $I_o = 500\text{mA}$, $C_i = 2.2\mu\text{F}$, $C_o = 1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25°C	-5.75	-6	-6.25	V
		$-8\text{V} \leq V_i \leq -21\text{V}$, $I_o = 5\text{mA} - 1\text{A}$ $P \leq 15\text{W}$	0-125 $^\circ\text{C}$	-5.7	-6	-6.3
Load Regulation	ΔV_o	$I_o = 5\text{mA} - 1.5\text{A}$	25°C	15	120	mV
		$I_o = 250\text{mA} - 750\text{mA}$	25°C	5	60	mV
Line Regulation	ΔV_o	$-8\text{V} \leq V_i \leq -25\text{V}$	25°C	12.5	120	mV
		$-9\text{V} \leq V_i \leq -13\text{V}$	25°C	4	60	mV
Quiescent Current	I_q	25°C	1.5	2	mA	
Quiescent Current Change	ΔI_q	$-8\text{V} \leq V_i \leq -25\text{V}$	0-125 $^\circ\text{C}$		1.3	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 1\text{A}$	0-125 $^\circ\text{C}$		0.5	mA
Output Noise Voltage	V_N	10Hz $\leq f \leq 100\text{kHz}$	25°C	150		μV
Output Voltage Drift	$\Delta V_o / \Delta T$	$I_o = 5\text{mA}$	0-125 $^\circ\text{C}$	-0.4		mV/ $^\circ\text{C}$
Ripple Rejection	RR	$-9\text{V} \leq V_i \leq -19\text{V}$, $f = 120\text{Hz}$	0-125 $^\circ\text{C}$	54	60	dB
Dropout Voltage	V_d	$I_o = 1\text{A}$	25°C	1.1		V
Peak Current	I_{pk}	25°C		2.1		A

TYPICAL APPLICATION

