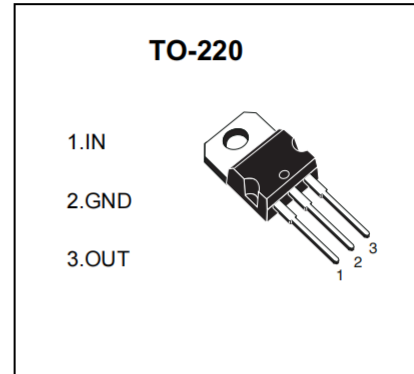


## TO-220 Plastic-Encapsulate Voltage Regulators

### L7806CV Three-terminal positive voltage regulator

#### FEATURES

- Maximum output current  
 $I_{OM}: 1.5A$
- Output voltage  
 $V_O: 6V$
- Continuous total dissipation  
 $P_D: 1.5W (T_a = 25^\circ C)$



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

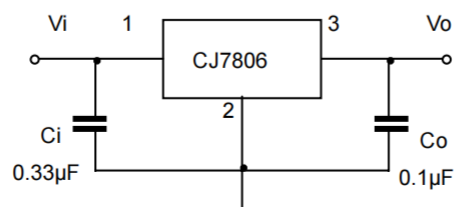
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	35	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	66.7	$^\circ C/W$
Operating Junction Temperature Range	$T_{OPR}$	-25~+125	$^\circ C$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ C$

#### ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i=11V, I_o=500mA, C_i=0.33\mu F, C_o=0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT	
Output voltage	$V_o$	$25^\circ C$	5.75	6	6.25	V	
		$8V \leq V_i \leq 21V, I_o=5mA-1A$	-25-125 $^\circ C$	5.7	6	6.3	V
Load Regulation	$\Delta V_o$	$I_o=5mA-1.5A$	$25^\circ C$		14	120	mV
		$I_o=250mA-750mA$	$25^\circ C$		4	60	mV
Line regulation	$\Delta V_o$	$8V \leq V_i \leq 25V$	$25^\circ C$		5	120	mV
		$9V \leq V_i \leq 13V$	$25^\circ C$		1.5	60	mV
Quiescent Current	$I_q$	$25^\circ C$		4.3	8	mA	
Quiescent Current Change	$\Delta I_q$	$8V \leq V_i \leq 25V$	-25-125 $^\circ C$			1.3	mA
		$5mA \leq I_o \leq 1A$	-25-125 $^\circ C$			0.5	mA
Output voltage drift	$\Delta V_o / \Delta T$	$I_o=5mA$	0-125 $^\circ C$	-0.8		mV/ $^\circ C$	
Output Noise Voltage	$V_N$	10Hz $\leq f \leq$ 100KHz	$25^\circ C$		45	$\mu V/V_o$	
Ripple Rejection	RR	$9V \leq V_i \leq 19V, f=120Hz$	-25-125 $^\circ C$	59	75	dB	
Dropout Voltage	$V_d$	$I_o=1A$	$25^\circ C$		2	V	
Output resistance	$R_o$	$f=1KHz$	$25^\circ C$		10	m $\Omega$	
Short Circuit Current	$I_{sc}$	$25^\circ C$			550	mA	
Peak Current	$I_{pk}$	$25^\circ C$			2.2	A	

\* Pulse test.

#### TYPICAL APPLICATION



# Typical Characteristics

