

TO-252/TO-251 Plastic-Encapsulate Voltage Regulators

L7906 Three-terminal negative voltage regulator

FEATURES:

※ Maximum output current

IOM: 1.5A

※ Output voltage

VO: -6V

※ Continuous total dissipation

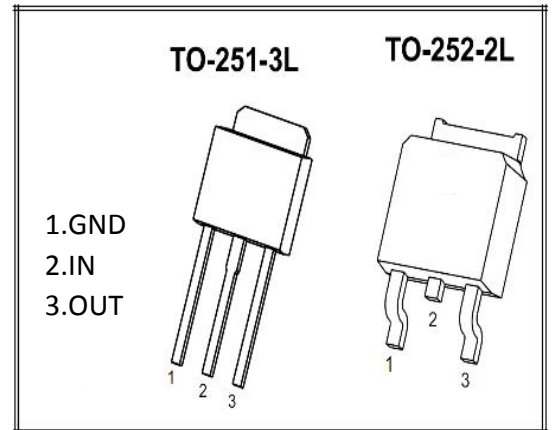
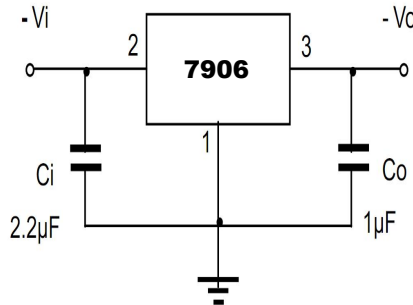
PD: 1.25W

MARKING:

7906 D / U ****

logo (D→252) / (U→251) ****→Date

TYPICAL APPLICATION:



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 air	$R_{\theta JA}$	100	°C/W
Operating Junction Temperature Range	TOPR	-25~+125	°C
Storage Temperature Range	TSTG	-55~+150	°C

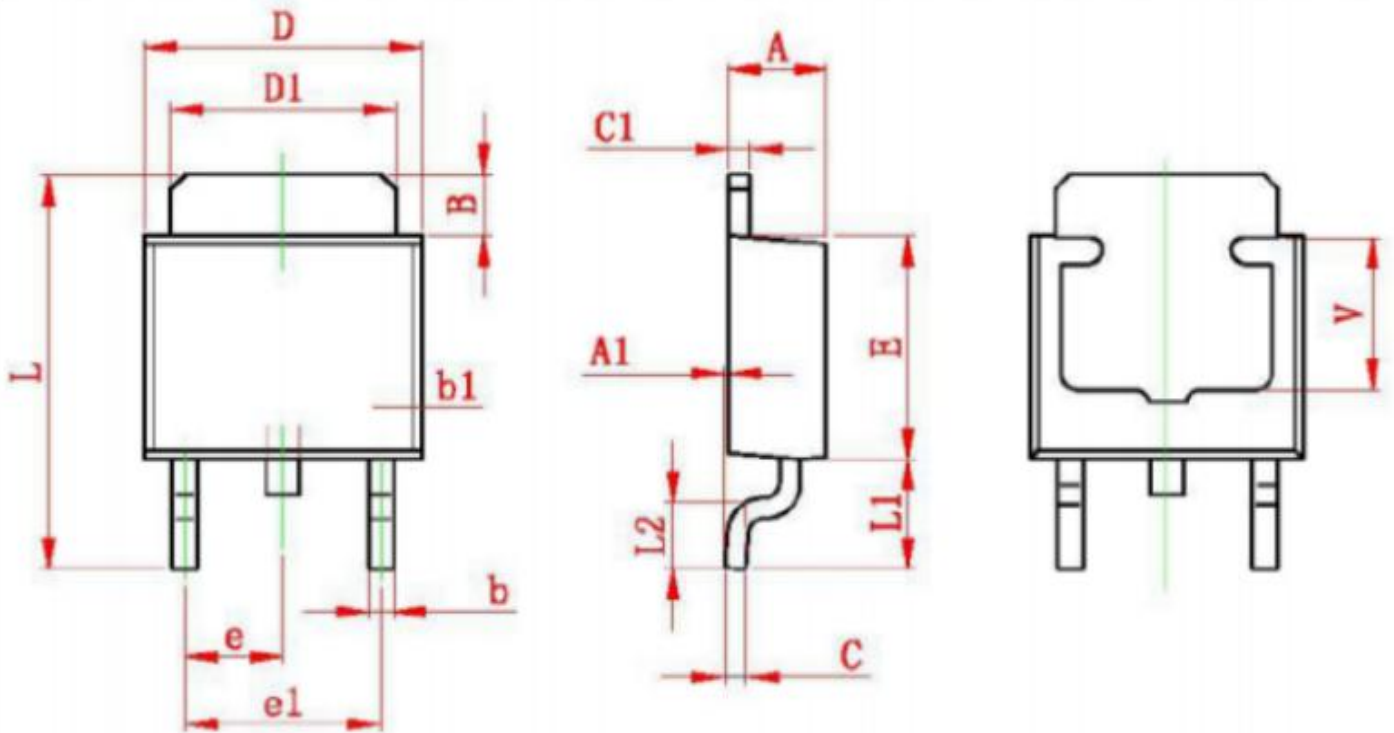
Electrical Characteristics At Specified Virtual Junction Temperature

($V_i = -11V$, $I_o = 500mA$, $C_i = 0.33\mu F$, $C_o = 0.1\mu F$. Unless Otherwise Specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Output voltage	V_O	25°C	-5.75	-6	-6.25	V
		-8V ≤ V_i ≤ -21V, $I_o = 5mA - 1A$	-25~+125	-5.7	-6.3	V
Load Regulation	ΔV_O	$I_o = 5mA - 1.5A$, $V_i = -11V$	25°C	18	120	mV
		$I_o = 250mA - 750mA$, $V_i = -11V$	25°C	10	60	mV
Line Regulation	ΔV_O	-8V ≤ V_i ≤ -25V, $I_o = 250mA$	25°C	13	120	mV
		-9V ≤ V_i ≤ -25V, $I_o = 250mA$	25°C	4	60	mV
Quiescent Current	I_q	25°C		2.5	6	mA
Quiescent Current Change	ΔI_q	-9V ≤ V_i ≤ -25V, $I_o = 250mA$	-25~+125		0.8	mA
	ΔI_q	5mA ≤ I_o ≤ 1A	-25~+125		0.5	mA
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz	25°C	125	200	μV/Vo
Ripple Rejection	R_r	-9V ≤ V_i ≤ -21.5V, $f = 120Hz$, $I_o = 300mA$	-25~+125	59	70	dB
Dropout Voltage	V_d	$I_o = 1A$	25°C	1.5	2.5	V
Short Circuit Current	I_{sc}	$V_i = -11V$	25°C	150		mA
Peak Current	I_{PK}	25°C		2.2		A
Output Voltage Drift	$\Delta V_O / \Delta T$	$I_o = 5mA$	25°C	-0.5		mV/°C

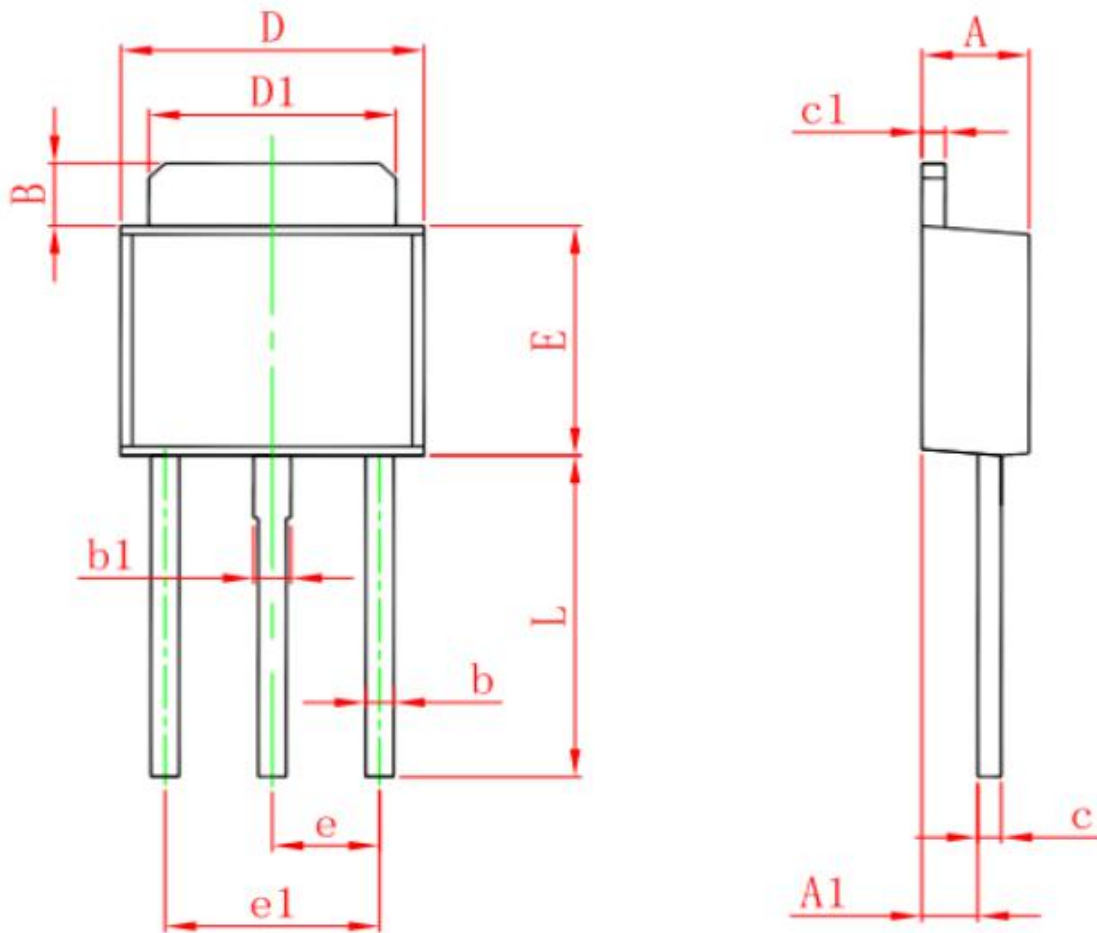
Note : Bypass Capacitors are Recommended For Optimum Stability and Transient Response and Should be located as Close as Possible to the Regulators

Package Dimensions:



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP		0.091 TYP	
e1	4.500	4.700	0.177	0.185
L	9.500	9.900	0.374	0.390
L1	2.550	2.900	0.100	0.114
L2	1.400	1.780	0.055	0.070
V	3.80 REF		0.150 REF	

Package Dimensions:



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	1.050	1.350	0.042	0.054
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP.		0.091 TYP.	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311