

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

L7818 Three-terminal positive voltage regulator

FEATURES:

※ Maximum output current

IOM: 1.5A

※ Output voltage

VO: 18V

※ Continuous total dissipation

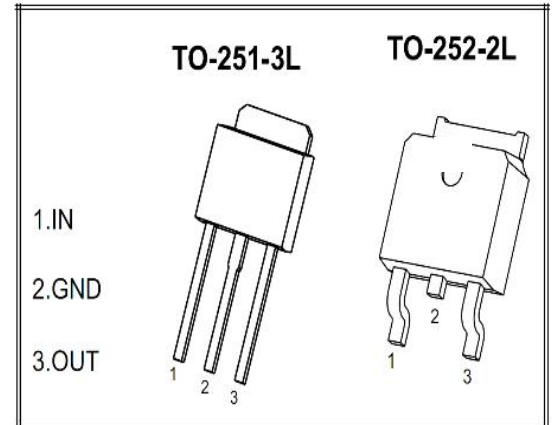
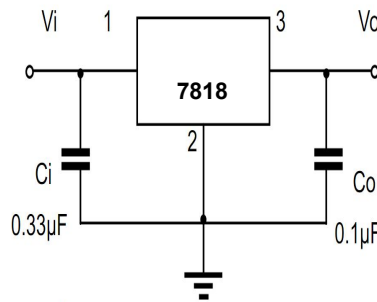
PD: 1.25W

MARKING:

7818 D / U ****

logo (D→252) / (U→251) ****→Date

TYPICAL APPLICATION:



Absolute Maximum ratings (Operating temperature range applies unless otherwise specified)

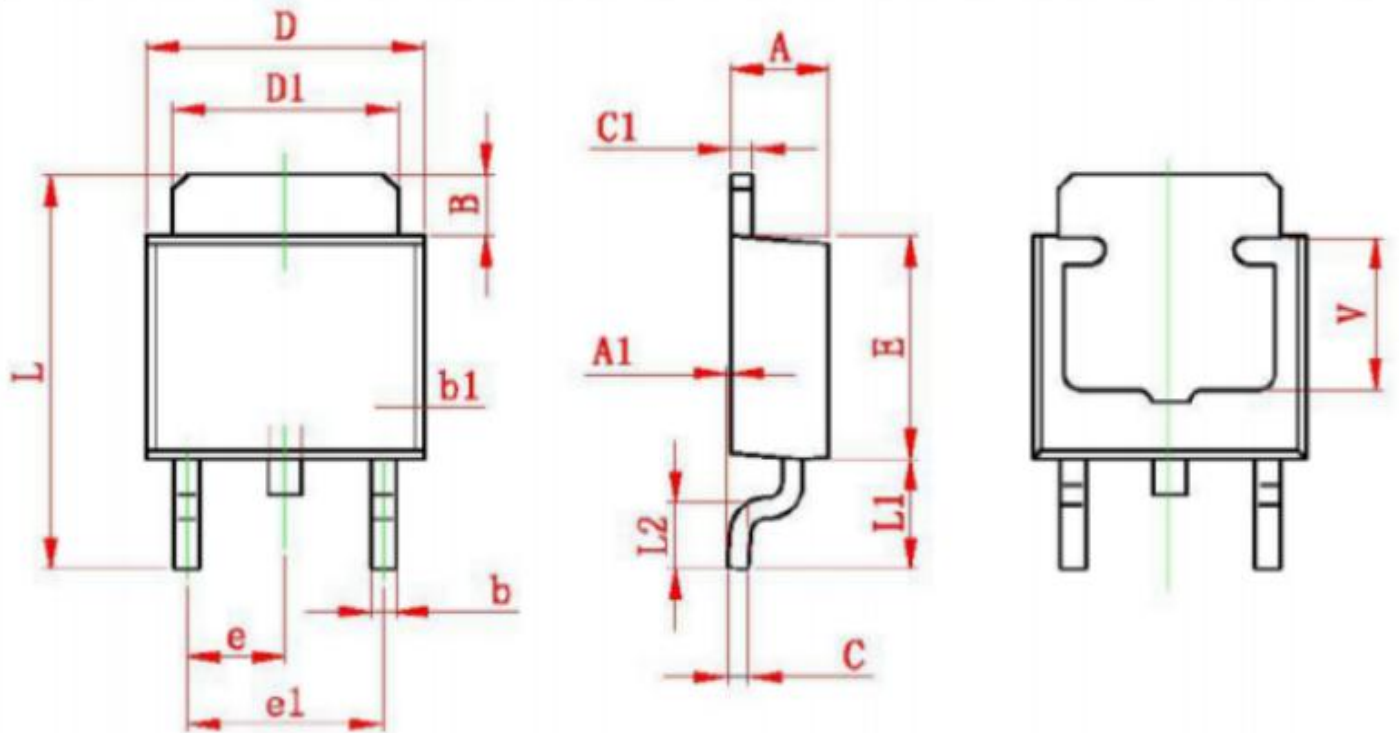
Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Thermal Resistance From Junction to air	$R_{\theta JA}$	80	°C/W
Operating Junction Temperature Range	TOPR	-25~+125	°C
Storage Temperature Range	TSTG	-55~+150	°C

Electrical Characteristics At Specified Virtual Junction Temperature ($V_i=27V$, $I_o=500mA$, $C_i=0.33\mu F$, $C_o=0.1\mu F$. Unless Otherwise Specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Output voltage	V_o	25°C	17.28	18	18.72	V
		20.5V≤ V_i ≤33V, $I_o=5mA-1A$	-25~+125	17.1	18.9	V
Load Regulation	ΔV_o	$I_o=5mA-1.5A$, $V_i=27V$	25°C	30	360	mV
		$I_o=250mA-750mA$, $V_i=27V$	25°C	15	180	mV
Line Regulation	ΔV_o	21V≤ V_i ≤33V, $I_o=250mA$	25°C	16	360	mV
		24V≤ V_i ≤33V, $I_o=250mA$	25°C	8	180	mV
Quiescent Current	I_q	25°C		4.8	8	mA
Quiescent Current Change	ΔI_q	21V≤ V_i ≤33V, $I_o=250mA$	-25~+125		1	mA
	ΔI_q	5mA≤ I_o ≤1A, $V_i=27V$	-25~+125		0.5	mA
Output Noise Voltage	V_N	10Hz≤ f ≤100KHz	25°C	100	200	μV/ V_o
Output voltage drift	$\Delta V_o/\Delta T$	$I_o=5mA$	-25-125°C	-1		mV/°C
Ripple Rejection	R_r	22V≤ V_i ≤33V, $f=120Hz$, $I_o=300mA$	-25~+125	55	80	dB
Dropout Voltage	V_d	$I_o=1A$	25°C	2	2.5	V
Output resistance	R_o	$f=1KHz$	25°C	19		mΩ
Short Circuit Current	I_{sc}	$V_i=27V$	25°C	300		mA
Peak Current	I_{PK}	25°C		2.2		A

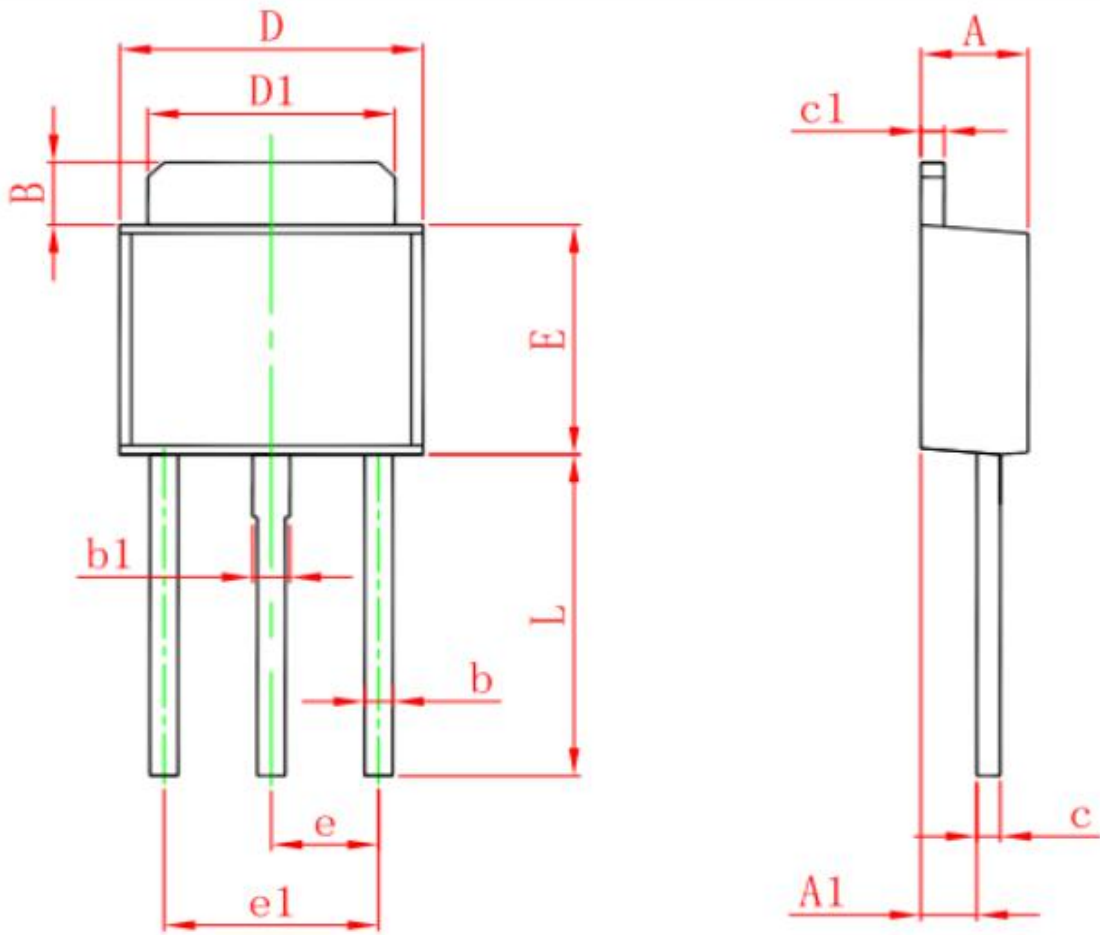
Note : Bypass Capacitors are Recommended For Optimum Stability and Transient Response and Should be located as Close as Possible to the Regulators

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