

### Three-terminal negative voltage regulator

#### FEATURES:

※ Maximum output current

**IOM: 0.5A**

※ Output voltage

**VO: -6V**

※ Continuous total dissipation

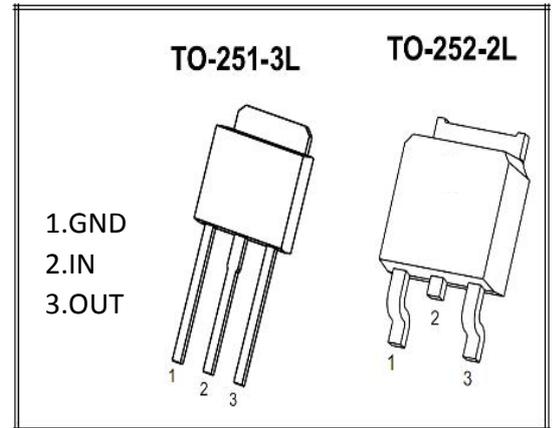
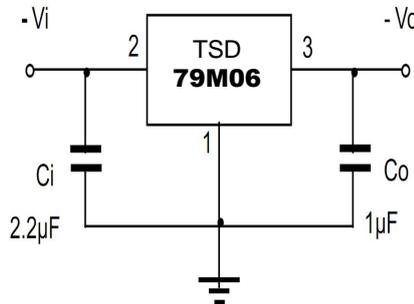
**PD: 1.25W**

#### MARKING:

**TSD79M06 TSDD / U \*\*\***

\*TSD→logo (D→252) / (U→251) \*\*\*\*→

#### 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	$^{\circ}C/W$
Operating Junction Temperature Range	TOPR	-25~+125	$^{\circ}C$
Storage Temperature Range	TSTG	-55~+150	$^{\circ}C$

#### Electrical Characteristics At Specified Virtual Junction Temperature

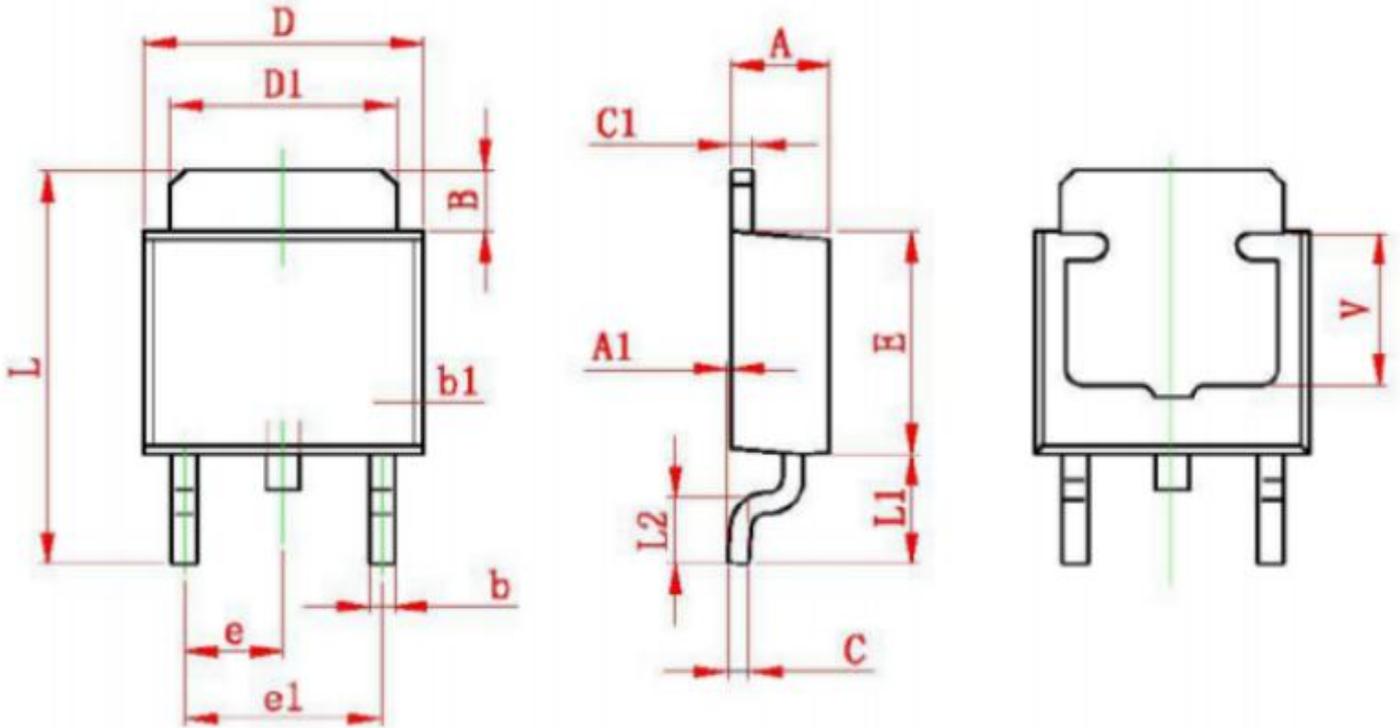
( $V_i = -11V$ ,  $I_o = 350mA$ ,  $C_i = 0.33\mu F$ ,  $C_o = 0.1\mu F$ . Unless Otherwise Specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Output voltage	$V_O$	$25^{\circ}C$	-5.75	-6	-6.25	V
		$-8V \leq V_i \leq -21V, I_o = 5mA - 350mA$	-25~+125	-5.7	-6	-6.3
Load Regulation	$\Delta V_O$	$I_o = 5mA - 0.5A, V_i = -11V$	$25^{\circ}C$	18	120	mV
		$I_o = 5mA - 200mA, V_i = -11V$	$25^{\circ}C$	10	60	mV
Line Regulation	$\Delta V_O$	$-8 \leq V_i \leq -25V, I_o = 200mA$	$25^{\circ}C$	5	100	mV
		$-9V \leq V_i \leq -25V, I_o = 200mA$	$25^{\circ}C$	1	50	mV
Quiescent Current	$I_q$	$25^{\circ}C$		4.2	6	mA
Quiescent Current Change	$\Delta I_q$	$-9V \leq V_i \leq -25V, I_o = 200mA$	-25~+125		0.8	mA
		$5mA \leq I_o \leq 350mA$	-25~+125		0.5	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$	$25^{\circ}C$	40	200	$\mu V/V_o$
Ripple Rejection	$R_r$	$-9 \leq V_i \leq -21.5V, f = 120Hz, I_o = 300mA$	-25~+125	59	80	dB
Dropout Voltage	$V_d$	$I_o = 350mA$	$25^{\circ}C$	2	2.5	V
Short Circuit Current	$I_{sc}$	$V_i = -11V$	$25^{\circ}C$	150		mA
Peak Current	$I_{PK}$	$25^{\circ}C$		0.5		A
Output Voltage Drift	$\Delta V_O / \Delta T$	$I_o = 5mA$	$25^{\circ}C$	-0.4		$mV / ^{\circ}C$

Note :

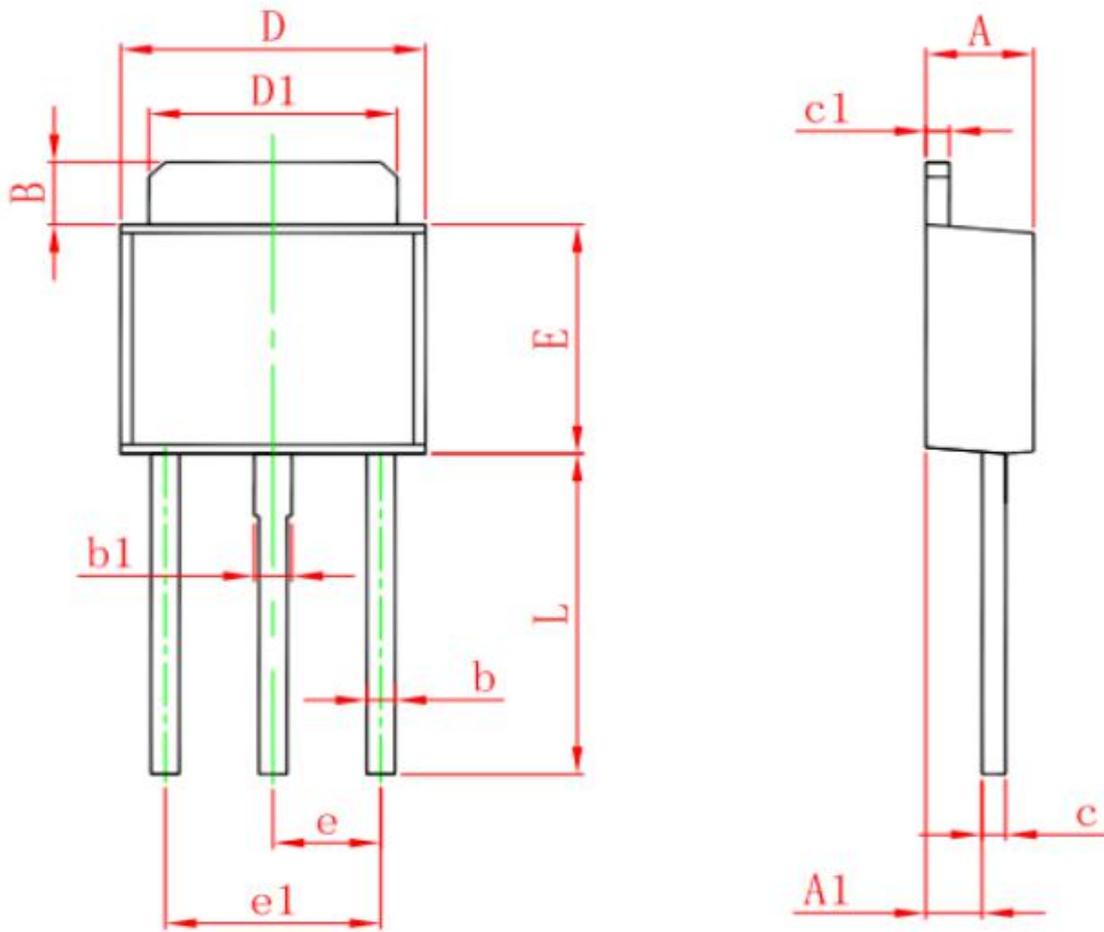
Bypass Capacitors are Recommended For Optimum Stability and Transient Response and Should be located as Close as Possible to the Regulators

## 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