

Encapsulate Three terminal voltage regulators

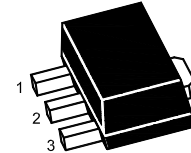
Three-terminal negative voltage regulator

FEATURES

- Maximum output current
 $I_{OM}: 100\text{mA}$
- Output voltage
 $V_O: -15\text{V}$
- Continuous total dissipation
 $P_D: 0.625\text{W}$

SOT-89 Plastic Package

1. GND
2. IN
3. OUT



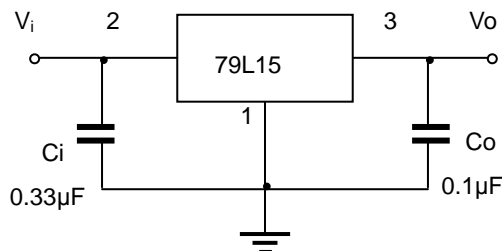
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_i	-35	V
Operating Junction Temperature Range	T_{OPR}	0~+125	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=-23\text{V}, I_o=40\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

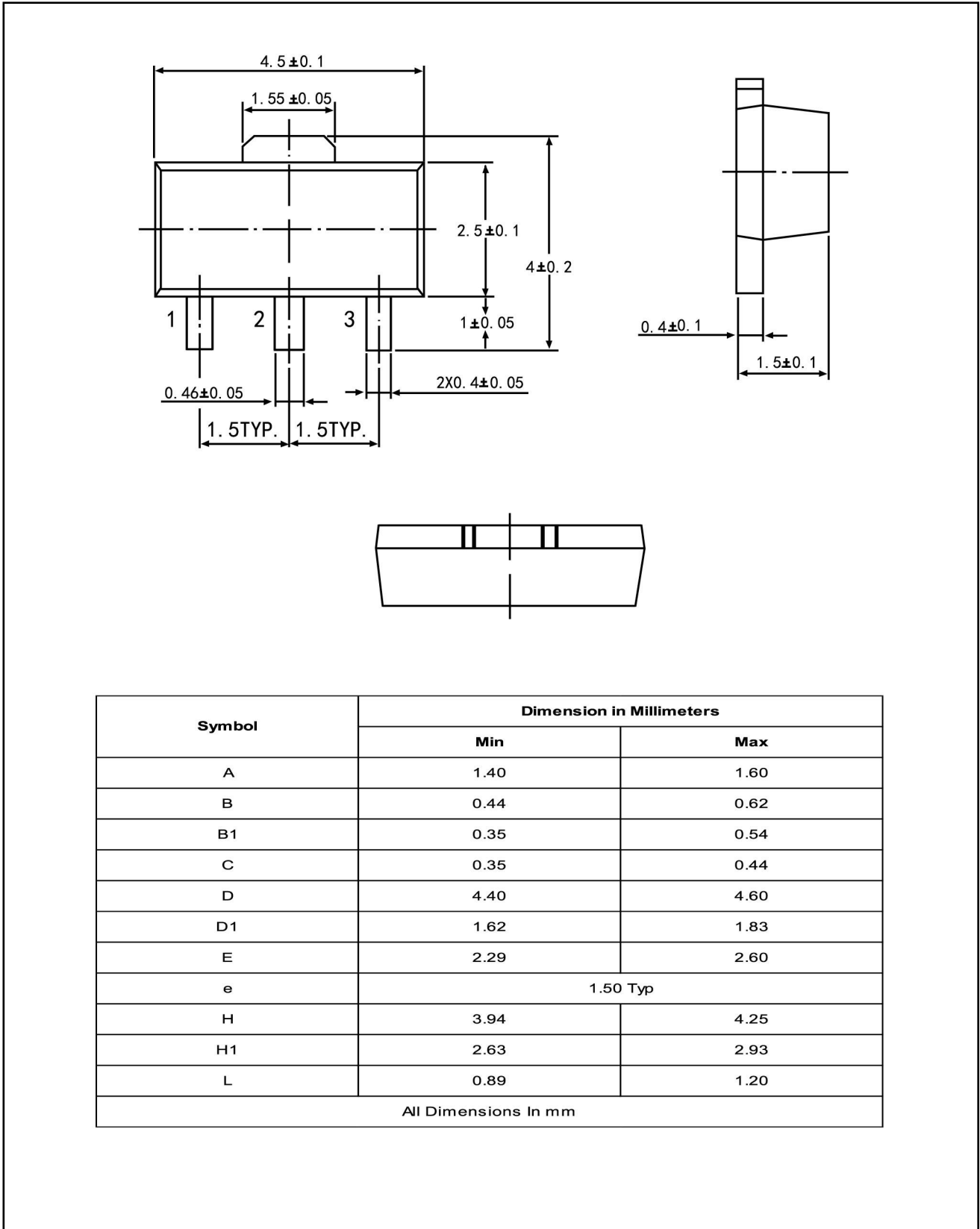
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	V_o	25°C	-14.4	-15	-15.6	V	
		$-17.5\text{V} \leq V_i \leq -30\text{V}, I_o=1\text{mA} \sim 40\text{mA}$	0-125°C	-14.25	-15	-15.75	V
		$I_o=1\text{mA} \sim 70\text{mA}$		-14.25	-15	-15.75	V
Load Regulation	ΔV_o	$I_o=1\text{mA} \sim 100\text{mA}, V_i=-23\text{V}$	25°C	25	150	mV	
		$I_o=1\text{mA} \sim 40\text{mA}, V_i=-23\text{V}$	25°C	15	75	mV	
Line regulation	ΔV_o	$-17.5\text{V} \leq V_i \leq -30\text{V}, I_o=40\text{mA}$	25°C	65	300	mV	
		$-20\text{V} \leq V_i \leq -30\text{V}, I_o=40\text{mA}$	25°C	50	250	mV	
Quiescent Current	I_q		25°C		6.5	mA	
Quiescent Current Change	ΔI_q	$-20\text{V} \leq V_i \leq -30\text{V}, I_o=40\text{mA}$	0-125°C		1.5	mA	
	ΔI_q	$1\text{mA} \leq I_o \leq 40\text{mA}$	0-125°C		0.1	mA	
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$	25°C	90		μV	
Ripple Rejection	RR	$-18.5\text{V} \leq V_i \leq -28.5\text{V}, f=120\text{Hz}$	0-125°C	34	39	dB	
Dropout Voltage	V_d		25°C	1.7		V	

TYPICAL APPLICATION



Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

SOT-89 PACKAGE OUTLINE



Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	0.44	0.62
B1	0.35	0.54
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
e	1.50 Typ	
H	3.94	4.25
H1	2.63	2.93
L	0.89	1.20
All Dimensions In mm		