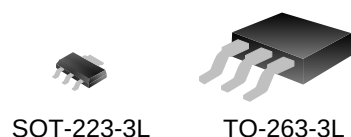
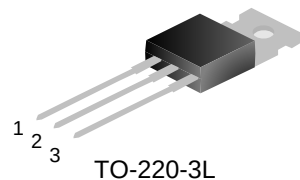


THREE-TERMINAL ADJUSTABLE OUTPUT POSITIVE VOLTAGE REGULATOR

1.DESCRPTION

SA317 is an adjustable three-terminal positive voltage regulator, providing a maximum current exceeding 1.5A when the output voltage range is 1.25V to 37V. This voltage regulator is exceptionally easy to use, and only two external resistors are needed to set the output voltage. In addition, internal current limiting, thermal shutdown and safe working area compensation are used to basically prevent the fuse from blowing.



2.FEATURES

- ◆ Output adjustable voltage low to 1.25V
- ◆ Maximum output current: 1.5A (TO-220-3L, TO-263-3L)
- ◆ Maximum output current: 0.5A (SOT-223-3L)
- ◆ Internal short circuit protection
- ◆ Over current/over thermal protection
- ◆ Transistor safe working area protection
- ◆ Standard three-terminal transistor package

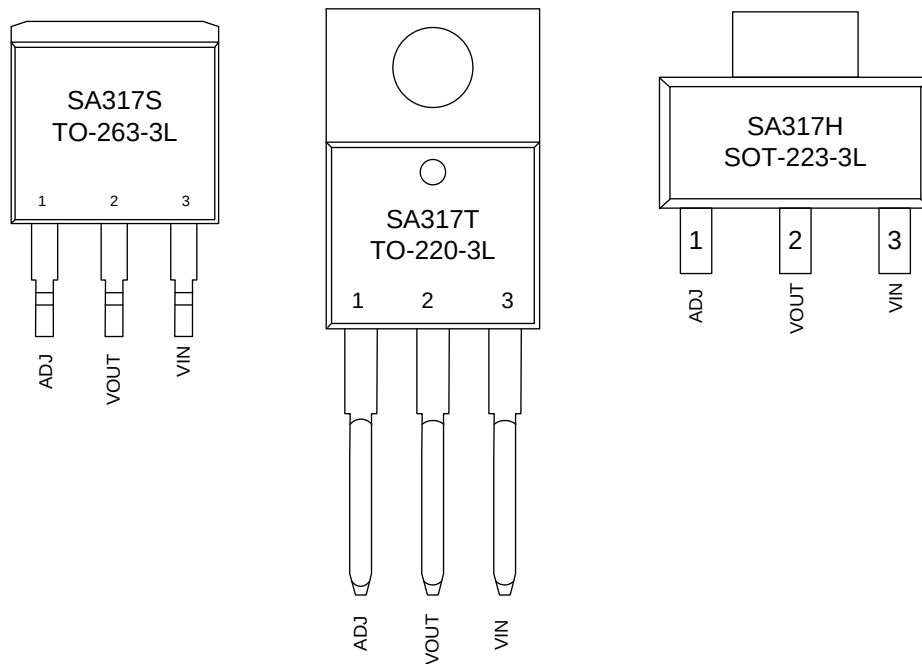
3.APPLICATIONS

- ◆ Local voltage regulator
- ◆ Precision current stabilizer
- ◆ Output voltage regulator

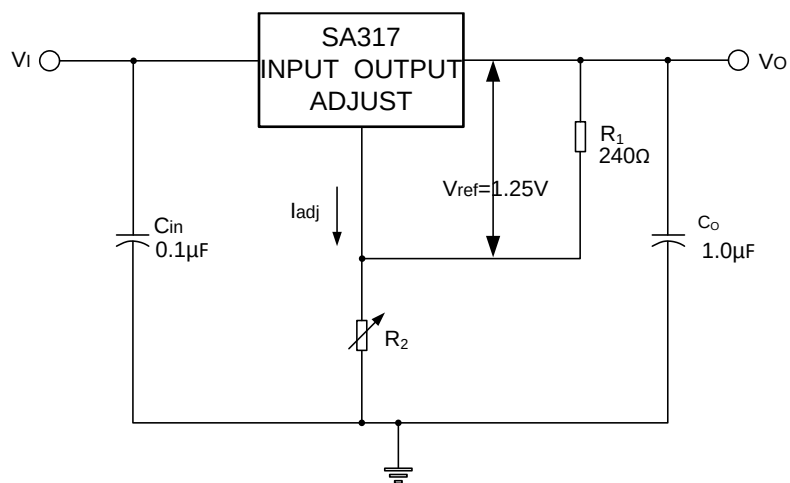
4.ORDERING INFORMATION

Part No.	Package	Marking	Hazardous Substance Control	Packing Type
SA317T	TO-220-3L	SA317T	Halogen free	Tube
SA317S	TO-263-3L	SA317S	Halogen free	Tube
SA317STR	TO-263-3L	SA317S	Halogen free	Tape & Reel
SA317H	SOT-223-3L	SA317H	Halogen free	Tube
SA317HTR	SOT-223-3L	SA317H	Halogen free	Tape & Reel

5. PIN CONFIGURATION



6. TYPICAL APPLICATION CIRCUIT



7. PACKAGE OUTLINE

TO-220-3L

UNIT: mm

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	4.30	4.50	4.70
A1	1.00	1.30	1.50
A2	1.80	2.40	2.80
b	0.60	0.80	1.00
b1	1.00	—	1.60
c	0.30	—	0.70
D	15.10	15.70	16.10
D1	8.10	9.20	10.00
E	9.60	9.90	10.40
e	2.54BSC		
H1	6.10	6.50	7.00
L	12.60	13.08	13.60
L1	—	—	3.95
φP	3.40	3.70	3.90
Q	2.60	—	3.20

TO-263-3L

UNIT: mm

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	4.40	4.60	4.80
A1	0	—	0.15
b	0.70	0.80	0.95
b1	1.10	1.30	1.50
c	0.30	0.40	0.55
c1	1.10	1.30	1.50
D	8.50	8.70	8.90
e	2.54TYP		
E	10.00	10.20	10.40
H	14.90	15.20	15.50
L	2.30	2.50	2.80
L1	1.10	1.30	1.50
L2	4.90	—	5.50

7. PACKAGE OUTLINE(CONTINUED)

SOT-223-3L

UNIT: mm

Technical drawing of the SOT-223-3L package showing three views: top, side, and bottom views with dimensions.

Top View: Dimensions include D1 (width of the top section), E1 (height of the main body), E (total height), b (width of a single leg), and e (pitch between legs).

Side View: Dimensions include L (height of the top section) and c (width of the package).

Bottom View: Dimensions include D (total width), A1 (height of the base), A2 (height of the base), and A (total height).

SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	—	—	1.80
A1	0.02	—	0.10
A2	1.50	1.60	1.70
b	0.60	—	0.85
c	0.23	—	0.35
D	6.30	6.50	6.70
D1	2.90	—	3.10
E	6.70	7.00	7.30
E1	3.30	3.50	3.70
e	2.30BSC		
L	0.75	—	1.20



MOS DEVICES OPERATE NOTES:

Electrostatic charges may exist in many things. Please take following preventive measures to prevent effectively the MOS electric circuit as a result of the damage which is caused by discharge:

- The operator must put on wrist strap which should be earthed to against electrostatic.
- Equipment cases should be earthed.
- All tools used during assembly, including soldering tools and solder baths, must be earthed.
- MOS devices should be packed in antistatic/conductive containers for transportation.

Important notice :

1. The instructions are subject to change without notice!
2. Customers should obtain the latest relevant information before placing orders and should verify that such information is complete and current. Please read the instructions carefully before using our products, including the circuit operation precautions.
3. Our products are consumer electronic products or the other civil electronic products.
4. When using our products, please do not exceed the maximum rating of the products, otherwise the reliability of the whole machine will be affected. There is a certain possibility of failure or malfunction of any semiconductor product under specific conditions. The buyer is responsible for complying with safety standards and taking safety measures when using our products for system design, sample and whole machine manufacturing, so as to avoid potential failure risk that may cause personal injury or property loss.
5. It is strongly recommended to identify the trademark when buying our products. Please contact us if there is any question.
6. Product promotion is endless, our company will wholeheartedly provide customers with better products!
7. Website: <http://www.silan.com.cn>