



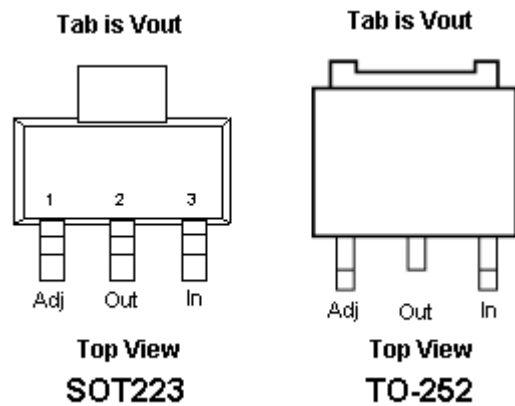
Description

The SE317 is a 3-Terminal adjustable positive voltage regulator capable of supplying in excess of 500mA over an output voltage range of 1.25V to 32V. This voltage regulator is exceptionally easy to use and requires only two external resistors to set the output voltage.

Features

- Output Current in Excess of 0.5A
- Output Adjustable Between 1.25V and 32V
- Wide Input Supply Voltage Range.
- Over-temperature and Over-current Protection.
- Available in SOT-223 and TO252 Packages.
- RoHS Compliant and 100% Lead (Pb)-Free

Pin Configuration



Ordering Information

Device	Marking Information	Package	V _{OUT}
SE317TA-LF	SE317TA YYWW-LF	SOT-223 (Lead-free)	Adjustable output voltage.
SE317TA-LF	SE317TA YYWW-LF	TO-252(Lead-free)	

Absolute Maximum Rating

Symbol	Parameter	Maximum	Units
V _{IN}	Input Supply Voltage	36	V
θ _{JA}	Thermal Resistance Junction to Ambient (SOT-223)	120	°C/W
T _J	Operating Junction Temperature Range	-40 to +125	°C
T _{STG}	Storage Temperature Range	-40 to +150	°C
T _{LEAD}	Lead Temperature (Soldering 10 Sec)	260±5	°C



Electrical Characteristic

$V_{IN,MIN} - V_{OUT} = 5V; V_{IN,MAX} \leq 36V; I_{OUT} = 10mA, C_{IN} = 10\mu F, C_{OUT} = 10\mu F, T_A = 25^\circ C$, unless otherwise specified.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Line Regulation	Rline	$T_A = +25^\circ C, (V_O + 4V) \leq V_I \leq 36V$	-	0.01	0.04	%/V
Load Regulation	Rload	$T_A = +25^\circ C, 10mA \leq I_O \leq 0.5A$		0.1	1.5	%
Adjustment Pin Current	IADJ		-	80	150	μA
Adjustment Pin Current Change	$\Delta IADJ$	$(V_O + 3V) \leq V_I \leq 36V ;$ $10mA \leq I_O \leq 0.5A;$ $PD < PD_{MAX}$	-	3.5	8	μA
Reference Voltage	VREF	$I_O = 10mA;$	1.20	1.25	1.30	V
Temperature Stability	STT	-	-	0.55	-	%
Minimum Load Current to Maintain Regulation	IL(MIN)		-	3.2	7	mA
Maximum Output Current	$I_O(MAX)$	$V_I - V_O = 34V PD < PD_{MAX}, T_A = +25^\circ C$		800	-	mA
RMS Noise, % of VOUT	eN	$T_A = +25^\circ C, 10Hz < f < 10KHz$	-	0.01	-	%/VO
Ripple Rejection	RR	$V_O = 10V, f = 120Hz$		65	-	dB

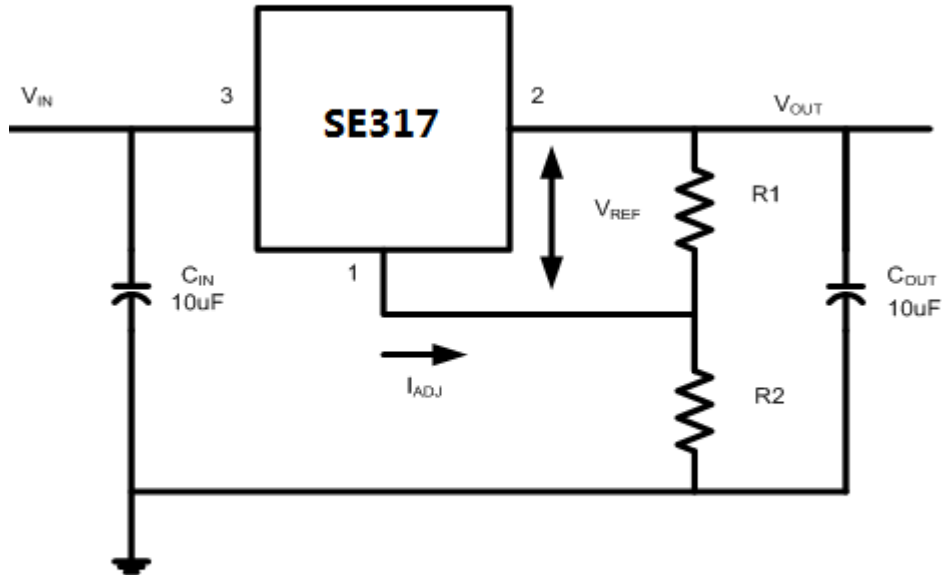
Notes:

1. Low duty cycle pulse testing with which T_J remains unchanged.



Typical Application

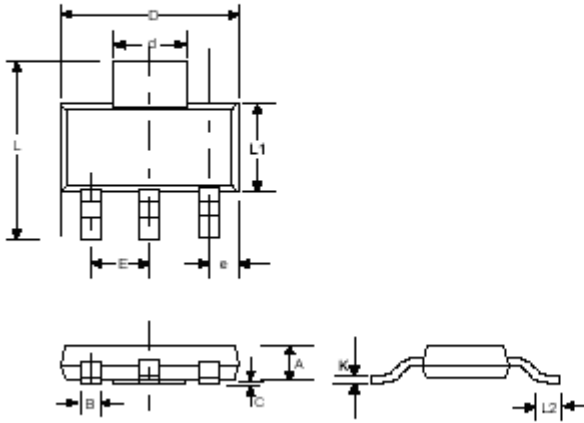
Adjustable Voltage Regulator



$$V_{OUT} = V_{REF} \left(1 + \frac{R_2}{R_1} \right) + I_{ADJ} R_2$$

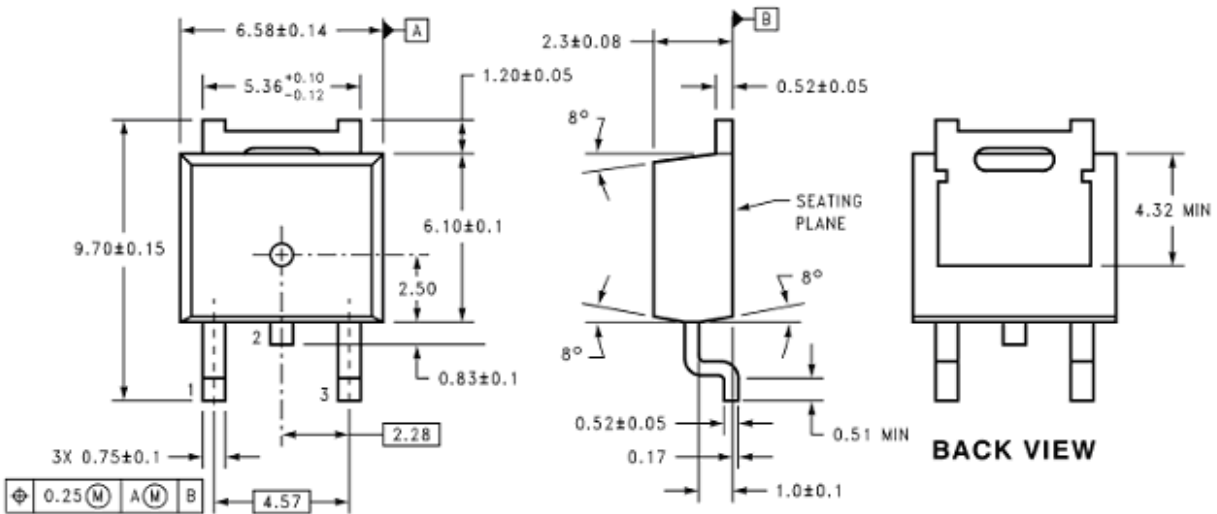


Outline Drawing for SOT-223



DIM ^N	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	—	0.071	—	1.80
B	0.025	0.033	0.640	0.840
C	0.012	—	0.31	—
D	0.248	0.264	6.30	6.71
d	0.115	0.124	2.95	3.15
E	—	0.090	—	2.29
e	0.033	0.041	0.840	1.04
L	0.264	0.287	6.71	7.29
L1	0.130	0.148	3.30	3.71
L2	0.012	—	0.310	—
K	0.010	0.014	0.250	0.360

Outline Drawing for TO252



DIMENSIONS ARE IN MILLIMETERS

3-Lead TO-252 Package



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