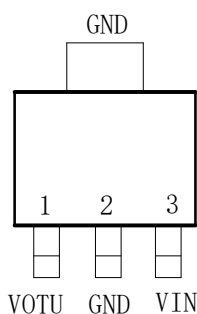


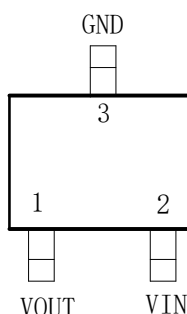
1.Features

- n Maximum output current:0.15A
- n Output voltage:5V
- n Internal thermal overload protection
- n Internal short circuit current limiting

2. Pin information



SOT89-3 (Top View)



SOT23 (Top View)

3. Maximum ratings

Characteristic	Symbol	Rating	Units
Input voltage	V_{IN}	35	V
Power dissipation	SOT89-3/ P_D	0.75	W
	SOT23/ P_D	0.3	W
Junction temperature	T_J	-20~+125	°C
Operating temperature	T_{OPR}	-30~+85	°C
Storage temperature	T_{STG}	-55~+150	°C

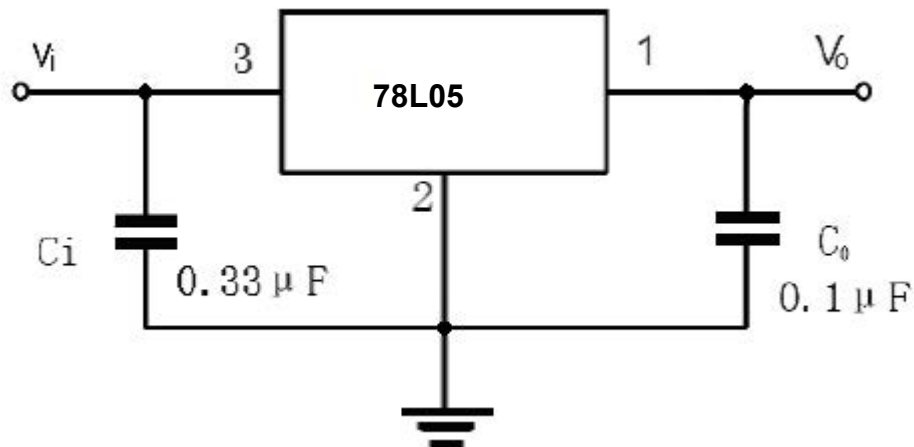
4. Electrical characteristics

(unless otherwise noted, $V_{IN}=10V, I_{OUT}=40mA, C_{IN}=0.33\mu F, C_{OUT}=0.1\mu F, T_J=25^\circ C$)

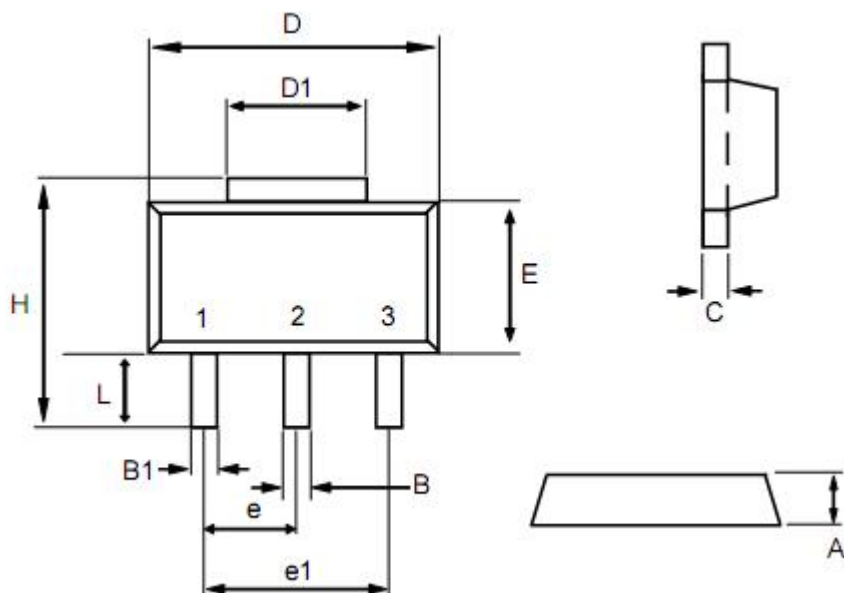
Parameter	Symbol	Condition		Min	Typ	Max	Unit
Output voltage	V _{OUT}	T _j =25°C		4.90	5.0	5.10	V
		7V≤V _{IN} ≤20V, I _O =5mA~150mA(*)		4.815	5.0	5.175	
Line regulation	Reg line	T _j =25°C	7V≤V _{IN} ≤20V	-	30	100	mV
			8V≤V _{IN} ≤20V	-	10	50	mV
Load regulation	Reg load	T _j =25°C	1.0mA≤I _{OUT} ≤200mA	-	11	60	mV
			1.0mA≤I _{OUT} ≤40mA	-	5.0	30	mV
Quiescent current	I _Q	T _j =25°C		-	3.8	6.0	mA
Quiescent current change	ΔI _Q	7V≤V _{IN} ≤20V, I _O =40mA		-	-	1.5	mA
		5mA≤I _{OUT} ≤150mA		-	-	0.1	mA
Output noise voltage	V _{NO}	10Hz≤f≤100KHz		-	40	-	uV _{rm}
Ripple rejection ratio	RR	7V≤V _{IN} ≤20V, T _j =25°C,f=120Hz		41	49	-	dB
Dropout voltage	V _{IN} -V _{OUT}	T _j =25°C,I _{OUT} =40mA		-	1.7	-	V
Short circuit current limit	I _{sc}	T _j =25°C		-	-0.6	-	A

*When $V_{IN}-V_{OUT} > 7V, I_{OUT} < 0.15mA$.

5. Application circuits

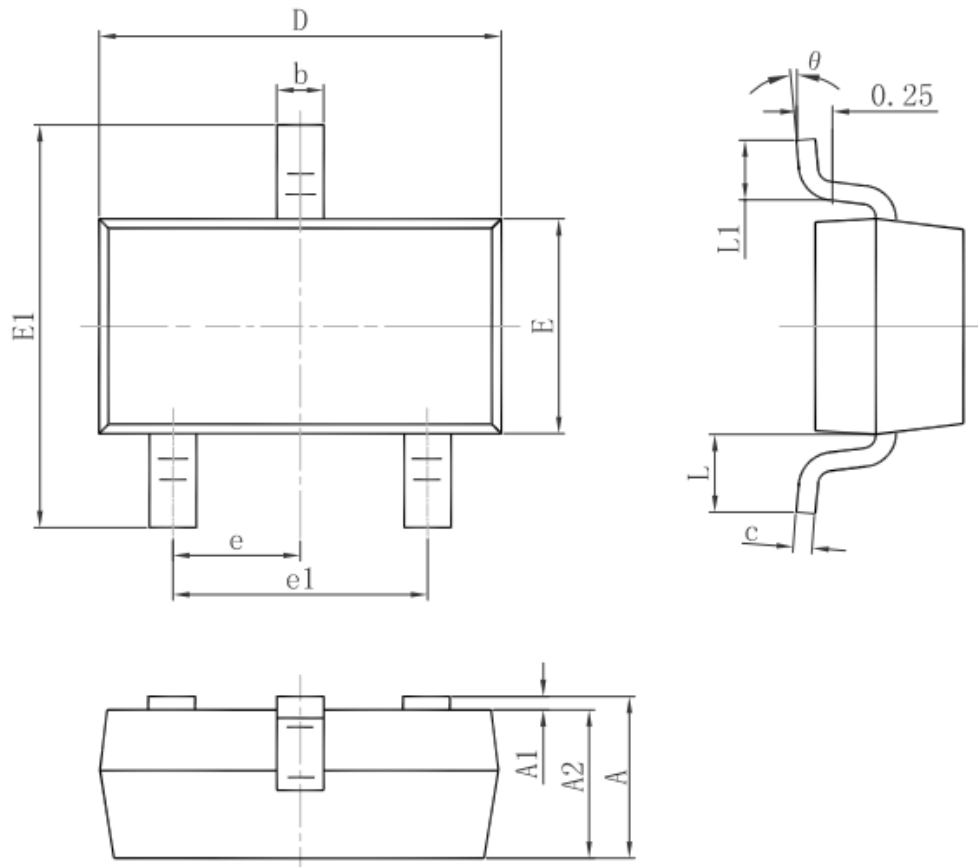


6. Package outline
SOT89-3



Dim	min	max
A	1.40	1.60
B	0.40	0.56
B1	0.35	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.35	1.83
e	1.50 BSC	
e1	3.00 BSC	
E	2.29	2.60
H	3.75	4.25
L	0.80	1.20

7. Package outline SOT23



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°