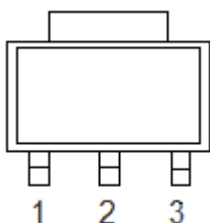


1. Features

- n Maximum output current:0.2A
- n Output voltage:5V
- n Internal thermal overload protection
- n Internal short circuit current limiting

2. Pin information



SOT89 Front View

Pin	Description
1	V_{OUT}
2	GND
3	V_{IN}

3. Maximum ratings

Characteristic	Symbol	Rating	Units
Input voltage	V_{IN}	35	V
Power dissipation	P_D	1	W
Junction temperature	T_J	-20~+125	°C
Operating temperature	T_{OPR}	-30~+85	°C
Storage temperature	T_{STG}	-55~+150	°C

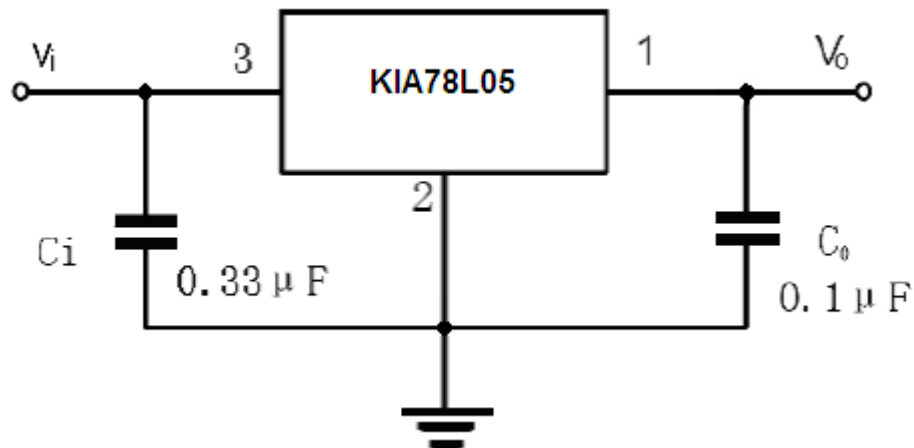
4. Electrical characteristics

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

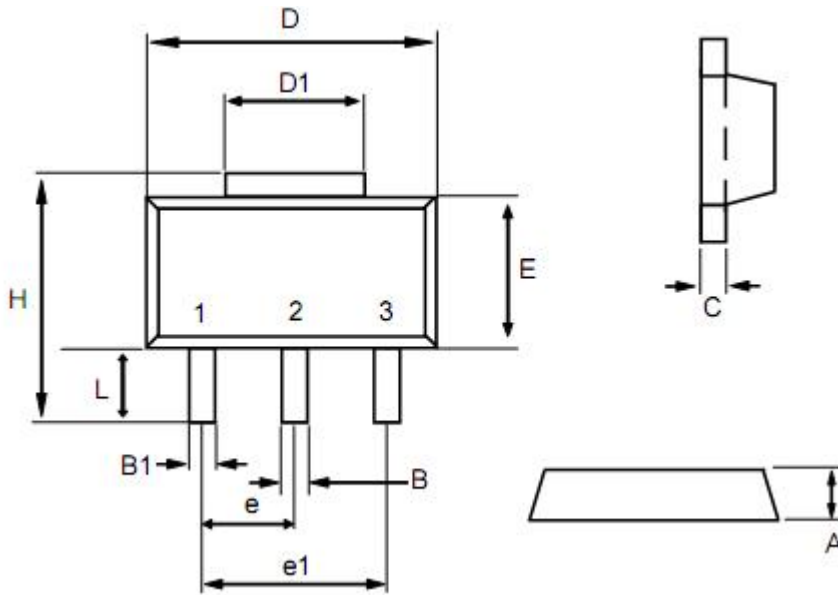
Parameter	Symbol	Condition	Min	Typ	Max	Unit	
Output voltage	V_{OUT}	$T_J=25^\circ C$	4.825	5.0	5.175	V	
		$7V \leq V_{IN} \leq 20V, I_o=5mA \sim 150mA(*)$	4.75	5.0	5.25		
Line regulation	Reg line	$T_J=25^\circ C$	$7V \leq V_{IN} \leq 20V$	-	30	100	mV
			$8V \leq V_{IN} \leq 20V$	-	10	50	mV
Load regulation	Reg load	$T_J=25^\circ C$	$1.0mA \leq I_{OUT} \leq 200mA$	-	11	60	mV
			$1.0mA \leq I_{OUT} \leq 40mA$	-	5.0	30	mV
Quiescent current	I_q	$T_J=25^\circ C$	-	3.8	6.0	mA	
Quiescent current change	ΔI_q	$7V \leq V_{IN} \leq 20V, I_o=40mA$	-	-	1.5	mA	
		$5mA \leq I_{OUT} \leq 150mA$	-	-	0.1	mA	
Output noise voltage	V_{NO}	$10Hz \leq f \leq 100KHz$	-	40	-	μV_{rms}	
Ripple rejection ratio	RR	$7V \leq V_{IN} \leq 20V, T_J=25^\circ C, f=120Hz$	41	49	-	dB	
Dropout voltage	$ V_{IN}-V_{OUT} $	$T_J=25^\circ C, I_{OUT}=40mA$	-	1.7	-	V	
Short circuit current limit	I_{sc}	$T_J=25^\circ C$	-	-0.6	-	A	

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

5. Application circuits



6. Package outline



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