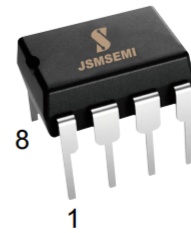


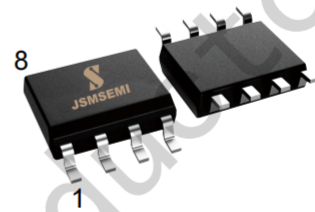
概述

TL081 是一款高速 J-FET 单运算放大器，由高压 J-FET 和双极晶体管构成。具有高转换速率、低输入偏置电流和失调电流以及低失调电压温度系数。

TL081 提供了 DIP8 和 SOP8 封装形式。



DIP-8 (P SUFFIX)

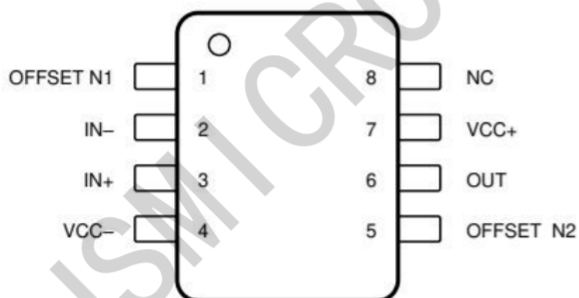


SOP-8 (P SUFFIX)

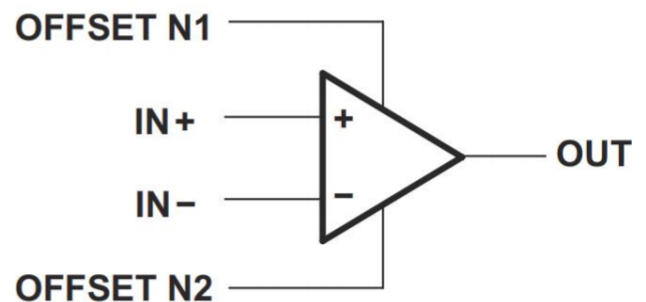
主要特点

- 较低功耗
- 宽的共模和差模输入电压范围
- 低的输入偏置电流和失调电流
- 输出短路电流保护
- 高输入阻抗
- 内部频率补偿
- 高转换速率
- 高增益带宽积

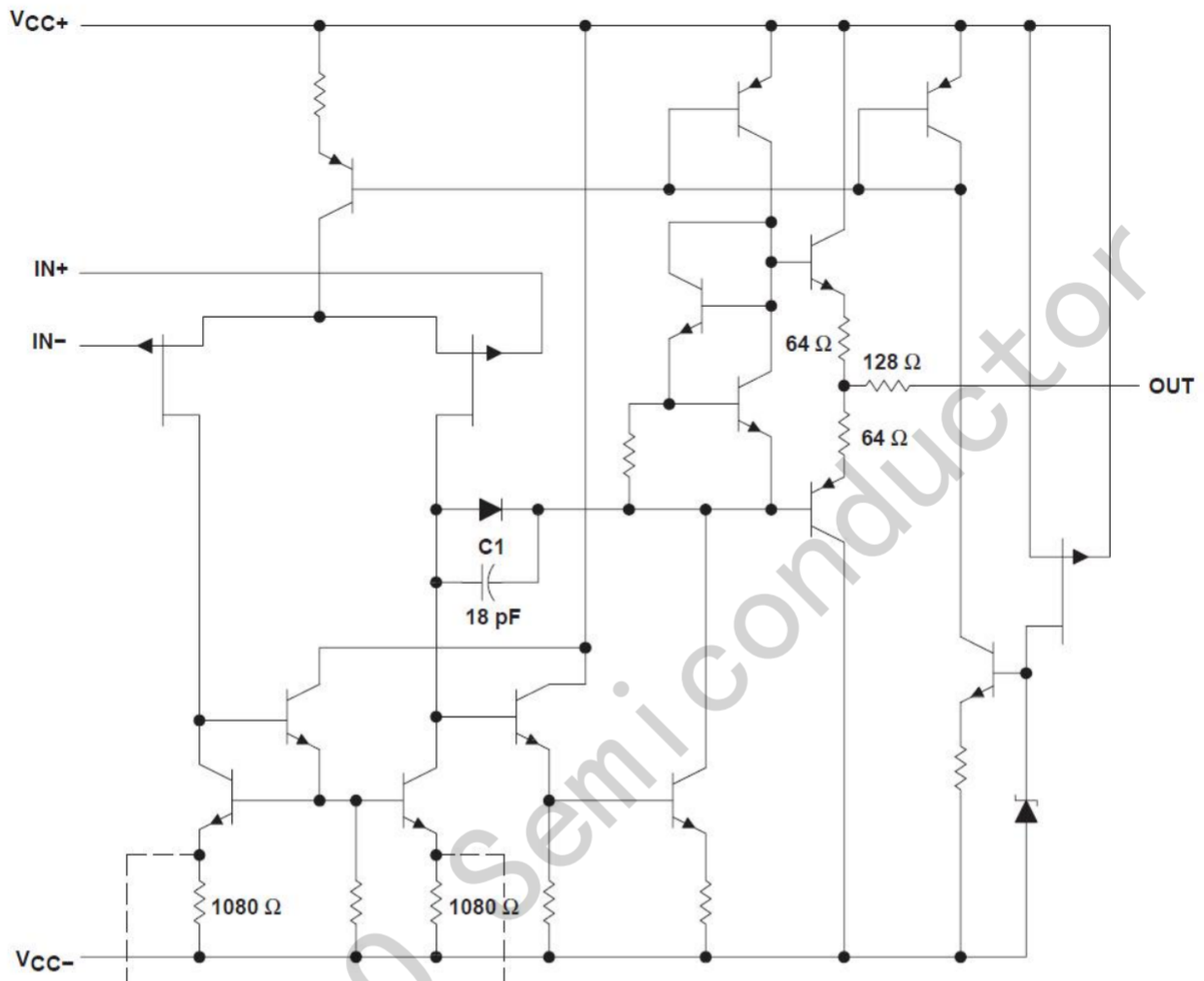
引脚图



符号



内部框图

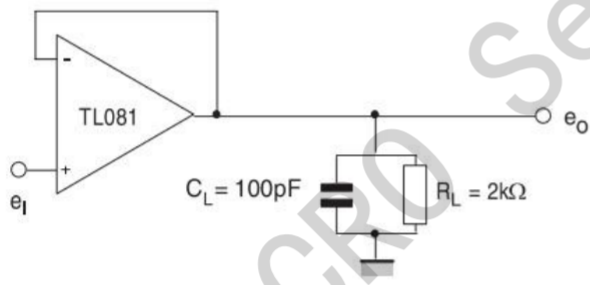
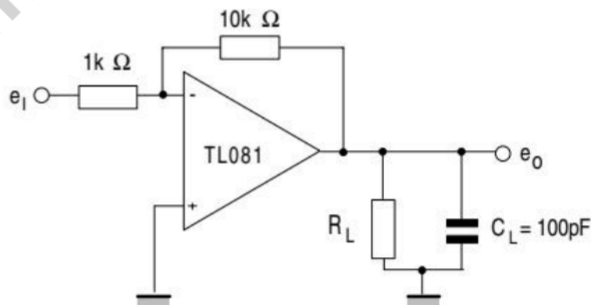
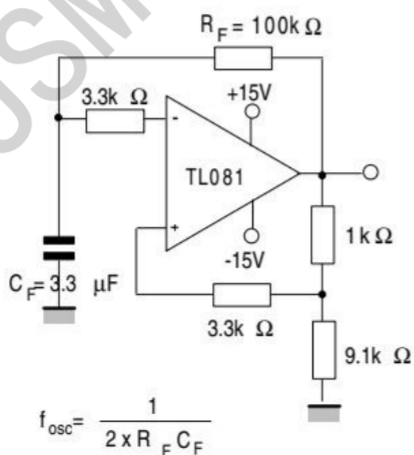
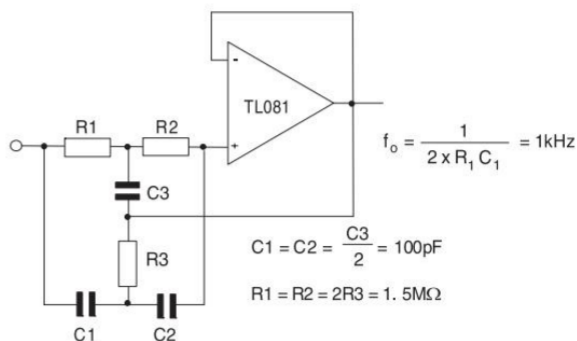


极限参数

符号	描述	极限值	单位
V _{cc}	电源电压	± 18	V
V _i	输入电压	± 15	V
V _{id}	差模输入电压	± 30	V
P _{tot}	功耗	680	mW
T _{oper}	工作温度	-20~85	°C
T _{stg}	储藏温度	-65~+150	°C

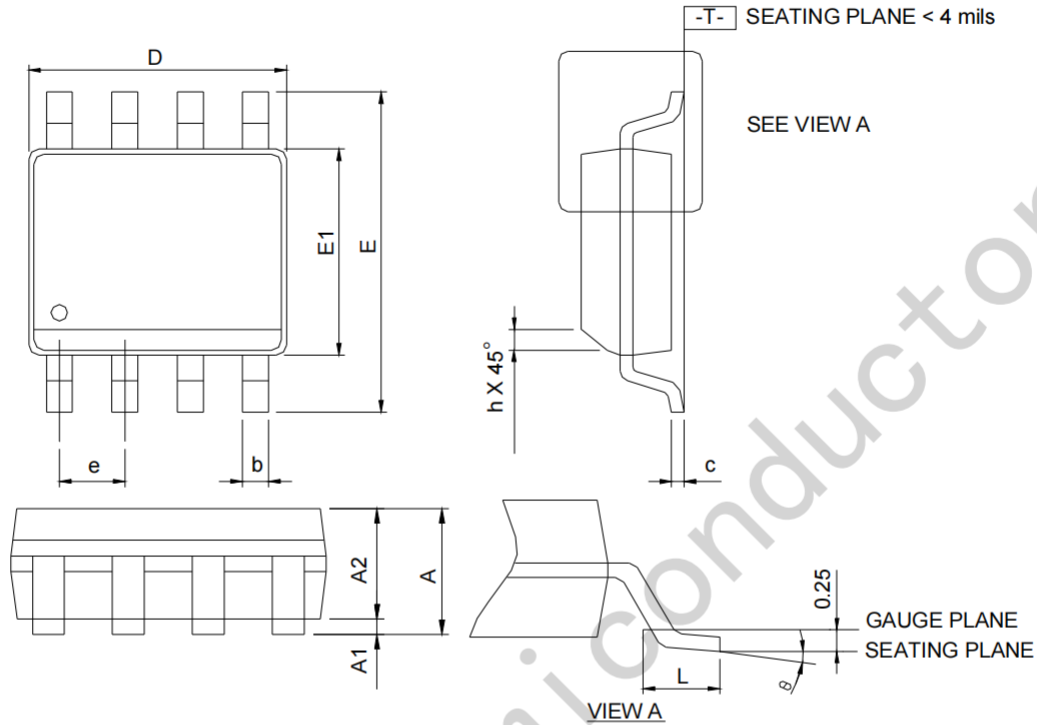
电特性 ($V_{CC} = \pm 15$, $T_{amp} = 25^\circ\text{C}$, 特殊情况另外说明)

符号	参数名称	测试条件	测试值			单位
			Min	Typ	Max	
V_{io}	失调电压	$V_o = 0V$		± 3	± 5	mV
I_{io}	输入失调电流	$V_o = 0V$			± 100	pA
I_{ib}	输出偏置电流	$V_o = 0V$			± 200	nA
V_{icm}	输入共模电压		$(V_{CC-}) + 1.5$		$(V_{CC+}) - 0.5$	V
V_{om}	输出电压峰值	$R_L = 10\text{ k}\Omega$	± 12	± 13.5		V
AVD	大信号电压增益	$R_L \geq 2\text{ k}\Omega$, $V_o = \pm 10\text{ V}$	80	95		dB
GB	增益带宽积			3		MHz
CMRR	共模抑制比	$R_s = 50\Omega$	70	85		dB
SVR	电源抑制比	$V_{CC} = \pm 15\text{ V to } \pm 9\text{ V}$, $V_o = 0V$	80	86		dB
ICC	静态电流	$V_{CC} = \pm 15\text{ V}$		± 1.8	± 2.8	mA
SR	转换速率	$V_i = 10\text{ V}$	8	20		V/us
t_r	上升时间	$V_{in} = 20\text{ mV}$		0.1		us

典型应用
电压跟随器

10倍增益反相放大器

0.5Hz方波振荡器

高Q阶式滤波器


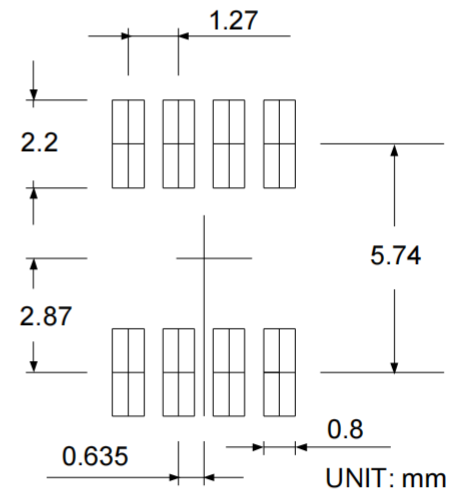
Package Information

SOP-8



SYMBOLS	SOP-8			
	MILLIMETERS		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	-	1.75	-	0.069
A1	0.10	0.25	0.004	0.010
A2	1.25	-	0.049	-
b	0.31	0.51	0.012	0.020
c	0.17	0.25	0.007	0.010
D	4.80	5.00	0.189	0.197
E	5.80	6.20	0.228	0.244
E1	3.80	4.00	0.150	0.157
e	1.27 BSC		0.050 BSC	
h	0.25	0.50	0.010	0.020
L	0.40	1.27	0.016	0.050
θ	0°	8°	0°	8°

RECOMMENDED LAND PATTERN



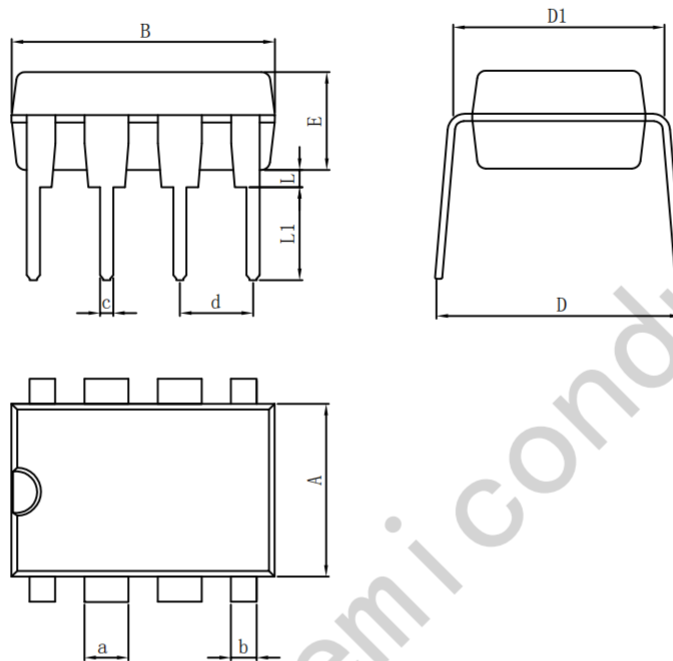
Note: 1. Follow JEDEC MS-012 AA.

2. Dimension "D" does not include mold flash, protrusions or gate burrs. Mold flash, protrusion or gate burrs shall not exceed 6 mil per side.

3. Dimension "E" does not include inter-lead flash or protrusions. Inter-lead flash and protrusions shall not exceed 10 mil per side.

Package Information

DIP-8



UNIT: mm							
DIM.	MIN	TYP	MAX	DIM.	MIN	TYP	MAX
A	6.100	6.300	6.680	a	1.504	1.524	1.544
B	9.000	9.200	9.500	b	-	0.889	-
D	8.400	8.700	9.000	c	0.437	0.457	0.477
D1	7.42	7.62	7.82	d	2.530	2.540	2.550
E	3.100	3.300	3.550	L	0.500	-	0.700
				L1	3.000	3.200	3.600