



OPA627-DIE 高精度高速 DIFET 运算放大器

1 特性

- 超低噪声
- 单位增益稳定

2 应用

- 精密仪表
- 快速数据采集
- DAC 输出放大器
- 光电子学
- 声纳, 超声波设备
- 高阻抗传感器放大器
- 高性能音频电路
- 有源滤波器

3 说明

OPA627-DIE DIFET 运算放大器的性能等级优于 FET 精密运算放大器。OPA627-DIE 具有低噪声、低偏移电压和高速特性, 非常适用于各种高精度高速模拟电路。

OPA627-DIE 是使用高速介质隔离互补 NPN/PNP 工艺制成的运算放大器, 其工作电源电压范围广。

DIFET 输入电路采用激光微调, 具有高精度、低噪声性能, 可媲美一流双极输入运算放大器。

高频互补晶体管支持更高的电路带宽, 可获得以往 FET 精密运算放大器所不能实现的动态性能。

OPA627-DIE 的单位增益稳定, 总增益稳定在 5 或更高。

制成的 DIFET 具有超低的偏置电流, 毫不影响输入电压的噪声性能。采用唯一的级联电路可在大范围的输入共模电压下保持低输入偏置电流。

订购信息⁽¹⁾

产品	封装标识符	封装	可订购部件号	封装数量
OPA627	TD	裸片采用叠片封装 ⁽²⁾	OPA627TDB1	130
			OPA627TDB2	10

(1) 要获得最新的封装和订购信息, 请参阅本文档末尾的封装选项附录, 或者浏览 TI 网站 www.ti.com。

(2) 加工过程遵循德州仪器 (TI) 商业生产基本规范, 制造过程符合德州仪器 (TI) 质量控制系统的实际要求。电气筛选仅包括室温下的直流参数和功能测试。除非德州仪器 (TI) 另有规定, 否则交流性能和过温性能无法得到保证。按照 MIL-STD-883 测试方法 2010 条件 B 执行目视检查, 至少检查 75 次。



OPA627-DIE

ZHCSSL4 – JULY 2014

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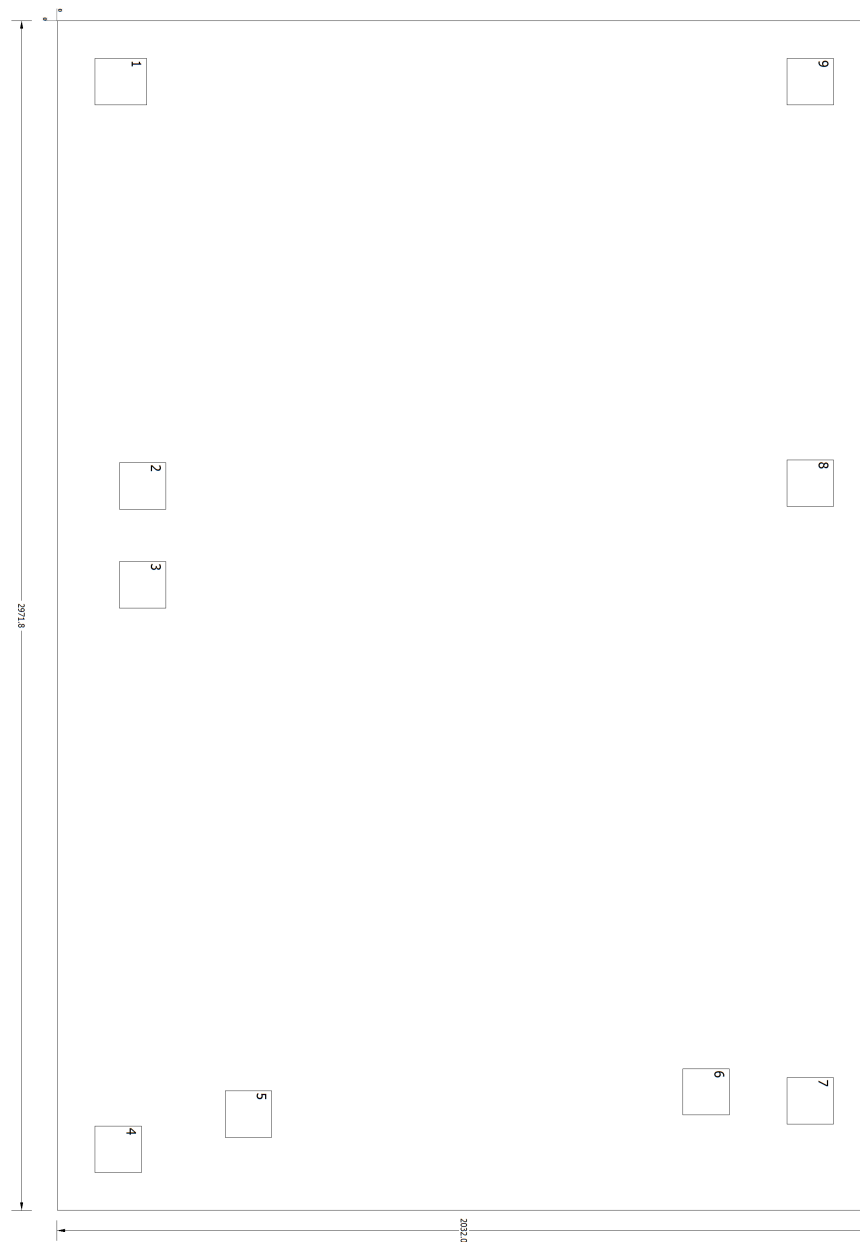


This integrated circuit can be damaged by ESD. Texas Instruments recommends that all integrated circuits be handled with appropriate precautions. Failure to observe proper handling and installation procedures can cause damage.

ESD damage can range from subtle performance degradation to complete device failure. Precision integrated circuits may be more susceptible to damage because very small parametric changes could cause the device not to meet its published specifications.

4 Bare Die Information

DIE THICKNESS	BACKSIDE FINISH	BACKSIDE POTENTIAL	BOND PAD METALLIZATION COMPOSITION	BOND PAD THICKNESS
10.5 mils	Silicon with backgrind	Floating	AlSi (1%)	1100 nm



Bond Pad Coordinates in Microns

DESCRIPTION	PAD NUMBER	X MIN	Y MIN	X MAX	Y MAX
Offset Trim	1	–1391.92	–922.02	–1275.08	–792.48
–In	2	–382.27	–861.06	–265.43	–744.22
+In	3	–134.62	–861.06	–17.78	–744.22
–V _S	4	1275.08	–922.02	1391.92	–805.18
N/C	5	1187.45	–596.9	1304.29	–480.06
Offset Trim	6	1131.57	544.83	1248.41	661.67
Output	7	1154.43	805.18	1271.27	922.02
+V _S	8	–388.62	805.18	–271.78	922.02
N/C	9	–1391.92	805.18	–1275.08	922.02

PACKAGING INFORMATION

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead finish/ Ball material (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
OPA627TDB1	LIFEBUY			0	130	RoHS & Green	Call TI	N / A for Pkg Type	25 to 25		

(1) The marketing status values are defined as follows:

ACTIVE: Product device recommended for new designs.

LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

PREVIEW: Device has been announced but is not in production. Samples may or may not be available.

OBSOLETE: TI has discontinued the production of the device.

(2) **RoHS:** TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".

RoHS Exempt: TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.

Green: TI defines "Green" to mean the content of Chlorine (Cl) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of <=1000ppm threshold. Antimony trioxide based flame retardants must also meet the <=1000ppm threshold requirement.

(3) MSL, Peak Temp. - The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

(4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.

(5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.

(6) Lead finish/Ball material - Orderable Devices may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

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