



# THE DATASHEET OF MC1558TDC2



## DUAL GENERAL-PURPOSE OPERATIONAL AMPLIFIER

 Check for Samples: [MC1558-DIE](#)

### FEATURES

- **Short-Circuit Protection**
- **Wide Common-Mode and Differential Voltage Ranges**
- **No Frequency Compensation Required**
- **Low Power Consumption**
- **No Latch-Up**

### DESCRIPTION

The MC1558-DIE is a dual general-purpose operational amplifier, with each half electrically similar to the  $\mu$ A741, except that offset null capability is not provided.

The high-common-mode input voltage range and the absence of latch-up make this amplifier ideal for voltage-follower applications. The MC1558-DIE is short-circuit protected and the internal frequency compensation ensures stability without external components.

### ORDERING INFORMATION<sup>(1)</sup>

| PRODUCT | PACKAGE DESIGNATOR | PACKAGE                                | ORDERABLE PART NUMBER | PACKAGE QUANTITY |
|---------|--------------------|--|-----------------------|------------------|
| MC1558  | TD                 | Bare die in waffle pack <sup>(2)</sup> | MC1558TDC1            | 400              |
|         |                    |  | MC1558TDC2            | 10               |

- (1) For the most current package and ordering information, see the Package Option Addendum at the end of this document, or see the TI web site at [www.ti.com](http://www.ti.com).
- (2) Processing is per the Texas Instruments commercial production baseline and is in compliance with the Texas Instruments Quality Control System in effect at the time of manufacture. Electrical screening consists of DC parametric and functional testing at room temperature only. Unless otherwise specified by Texas Instruments AC performance and performance over temperature is not warranted. Visual Inspection is performed in accordance with MIL-STD-883 Test Method 2010 Condition B at 75X minimum.



Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

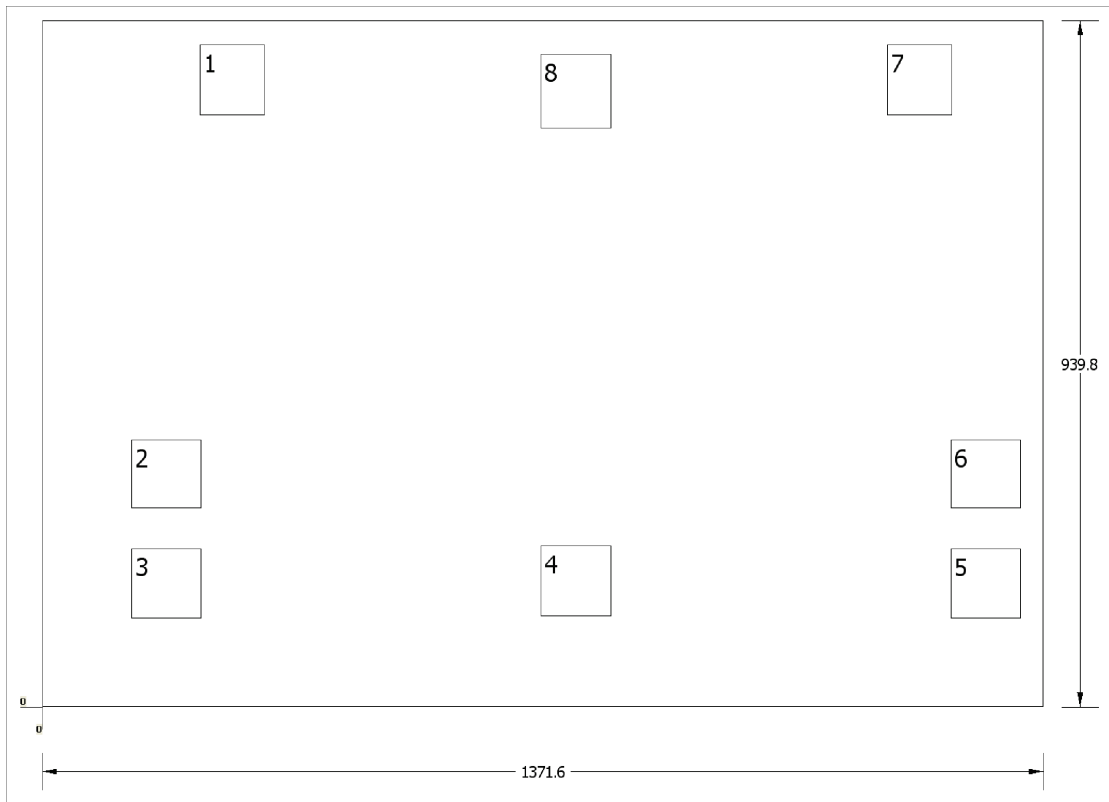


This integrated circuit can be damaged by ESD. Texas Instruments recommends that all integrated circuits be handled with appropriate precautions. Failure to observe proper handling and installation procedures can cause damage.

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.

**BARE DIE INFORMATION**

| DIE THICKNESS | BACKSIDE FINISH        | BACKSIDE POTENTIAL | BOND PAD METALLIZATION COMPOSITION | BOND PAD THICKNESS |
|---------------|------------------------|--------------------|------------------------------------|--------------------|
| 10.5 mils.    | Silicon with backgrind | Floating           | AlCuTiW                            | 1627 nm            |



**Table 1. Bond Pad Coordinates in Microns**

| DESCRIPTION | PAD NUMBER | X MIN   | Y MIN  | X MAX   | Y MAX  |
|-------------|------------|---------|--------|---------|--------|
| 1OUT        | 1          | 215.9   | 810.26 | 304.8   | 906.78 |
| 1IN-        | 2          | 121.92  | 271.78 | 218.44  | 365.76 |
| 1IN+        | 3          | 121.92  | 120.65 | 218.44  | 217.17 |
| VCC-        | 4          | 683.26  | 124.46 | 779.78  | 220.98 |
| 2IN+        | 5          | 1244.6  | 120.65 | 1341.12 | 217.17 |
| 2IN-        | 6          | 1244.6  | 271.78 | 1341.12 | 365.76 |
| 2OUT        | 7          | 1158.24 | 810.26 | 1247.14 | 906.78 |
| VCC+        | 8          | 683.26  | 792.48 | 779.78  | 894.08 |

**PACKAGING INFORMATION**

| Orderable Device | Status<br>(1) | Package Type | Package Drawing | Pins | Package Qty | Eco Plan<br>(2) | Lead/Ball Finish | MSL Peak Temp<br>(3) | Op Temp (°C) | Device Marking<br>(4/5) | Samples                 |
|------------------|---------------|--------------|-----------------|------|-------------|-----------------|------------------|----------------------|--------------|-------------------------|-------------------------|
| MC1558TDC1       | ACTIVE        |              |                 | 0    | 374         | TBD             | Call TI          | N / A for Pkg Type   | 0 to 0       |                         | <a href="#">Samples</a> |
| MC1558TDC2       | ACTIVE        |              |                 | 0    | 10          | TBD             | Call TI          | N / A for Pkg Type   | 0 to 0       |                         | <a href="#">Samples</a> |

(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) Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check <http://www.ti.com/productcontent> for the latest availability information and additional product content details.

**TBD:** The Pb-Free/Green conversion plan has not been defined.

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(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.

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|                               |  |
|-------------------------------|--|
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| Computers and Peripherals     | <a href="http://www.ti.com/computers">www.ti.com/computers</a>                           |
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