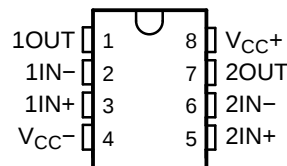


## FEATURES

- Continuous Short-Circuit Protection
- Wide Common-Mode and Differential Voltage Ranges
- No Frequency Compensation Required
- Low Power Consumption
- No Latch-Up
- Unity-Gain Bandwidth . . . 3 MHz Typ
- Gain and Phase Match Between Amplifiers
- Low Noise . . . 8 nV/ $\sqrt{\text{Hz}}$  Typ at 1 kHz

D, DGK, P, PS, OR PW PACKAGE  
(TOP VIEW)



## DESCRIPTION/ORDERING INFORMATION

The RC4558 device is a dual general-purpose operational amplifier, with each half electrically similar to the  $\mu\text{A}741$ , 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 device is short-circuit protected, and the internal frequency compensation ensures stability without external components.

### ORDERING INFORMATION

| T <sub>A</sub> | PACKAGE <sup>(1)</sup> |              | ORDERABLE PART NUMBER | TOP-SIDE MARKING   |
|----------------|------------------------|--------------|-----------------------|--------------------|
| 0°C to 70°C    | MSOP/VSSOP – DGK       | Reel of 2500 | RC4558DGKR            | YR_ <sup>(2)</sup> |
|                | PDIP – P               | Tube of 50   | RC4558P               | RC4558P            |
|                | SOIC – D               | Tube of 75   | RC4558D               | RC4558             |
|                |                        | Reel of 2500 | RC4558DR              |                    |
|                | SOP – PS               | Reel of 2000 | RC4558PSR             | R4558              |
|                | TSSOP – PW             | Tube of 150  | RC4558PW              | R4558              |
|                |                        | Reel of 2000 | RC4558PWR             |                    |
| –40°C to 85°C  | MSOP/VSSOP – DGK       | Reel of 2500 | RC4558IDGKR           | YS_ <sup>(2)</sup> |
|                | PDIP – P               | Tube of 50   | RC4558IP              | RC4558IP           |
|                | SOIC – D               | Tube of 75   | RC4558ID              | R4558I             |
|                |                        | Reel of 2500 | RC4558IDR             |                    |
|                | TSSOP – PW             | Tube of 150  | RC4558IPW             | R4558I             |
|                |                        | Reel of 2000 | RC4558IPWR            |                    |

(1) Package drawings, standard packing quantities, thermal data, symbolization, and PCB design guidelines are available at [www.ti.com/sc/package](http://www.ti.com/sc/package).

(2) The actual top-side marking has one additional character that designates the assembly/test site.

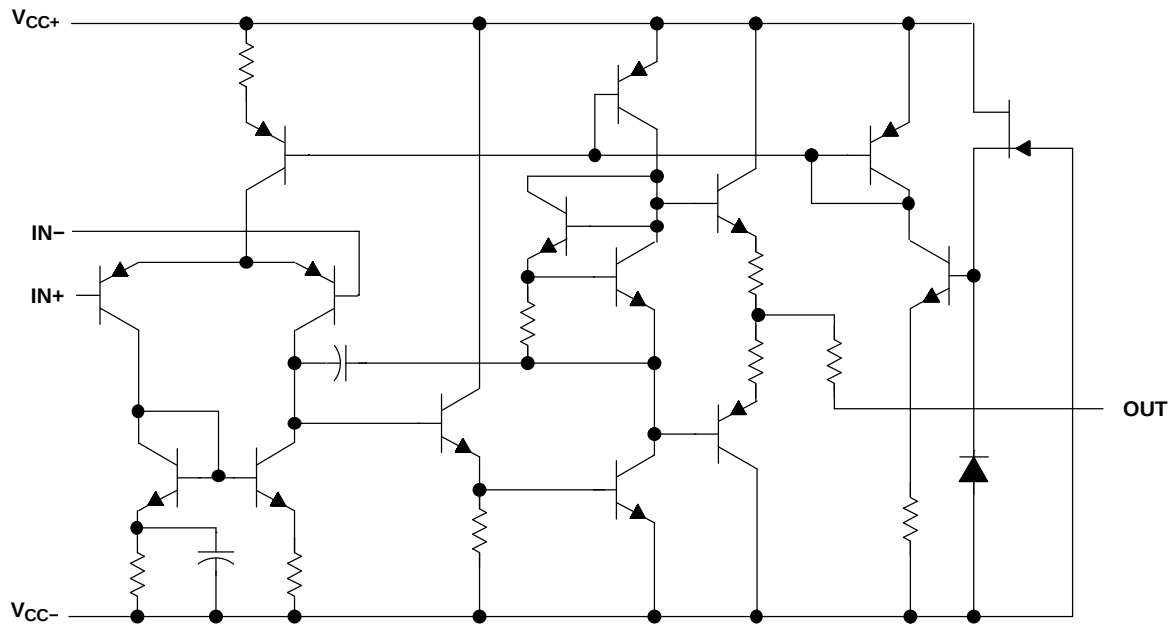


Please be aware that an important notice concerning availability, standard warranty, and use in critical applications of Texas Instruments semiconductor products and disclaimers thereto appears at the end of this data sheet.

# RC4558 DUAL GENERAL-PURPOSE OPERATIONAL AMPLIFIER

SLOS073E – MARCH 1976 – REVISED FEBRUARY 2006

SCHEMATIC (EACH AMPLIFIER)



### Absolute Maximum Ratings<sup>(1)</sup>

over operating free-air temperature range (unless otherwise noted)

|                  |                                                                                    | MIN         | MAX       | UNIT |
|------------------|------------------------------------------------------------------------------------|-------------|-----------|------|
| V <sub>CC+</sub> | Supply voltage <sup>(2)</sup>                                                      |             | 18        | V    |
| V <sub>CC-</sub> |                                                                                    |             | –18       |      |
| V <sub>ID</sub>  | Differential input voltage <sup>(3)</sup>                                          |             | ±30       | V    |
| V <sub>I</sub>   | Input voltage (any input) <sup>(2)(4)</sup>                                        |             | ±15       | V    |
|                  | Duration of output short circuit to ground, one amplifier at a time <sup>(5)</sup> |             | Unlimited |      |
| $\theta_{JA}$    | Package thermal impedance <sup>(6)(7)</sup>                                        | D package   | 97        | °C/W |
|                  |                                                                                    | DGK package | 172       |      |
|                  |                                                                                    | P package   | 85        |      |
|                  |                                                                                    | PS package  | 95        |      |
|                  |                                                                                    | PW package  | 149       |      |
| T <sub>J</sub>   | Operating virtual junction temperature                                             |             | 150       | °C   |
| T <sub>stg</sub> | Storage temperature range                                                          | –65         | 150       | °C   |

- (1) Stresses beyond those listed under *Absolute Maximum Ratings* may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under *Recommended Operating Conditions* is not implied. Exposure to absolute-maximum-rated conditions for extended periods may affect device reliability.
- (2) All voltage values, unless otherwise noted, are with respect to the midpoint between V<sub>CC+</sub> and V<sub>CC-</sub>.
- (3) Differential voltages are at IN+ with respect to IN–.
- (4) The magnitude of the input voltage must never exceed the magnitude of the supply voltage or 15 V, whichever is less.
- (5) Temperature and/or supply voltages must be limited to ensure that the dissipation rating is not exceeded.
- (6) Maximum power dissipation is a function of T<sub>J</sub> (max),  $\theta_{JA}$ , and T<sub>A</sub>. The maximum allowable power dissipation at any allowable ambient temperature is  $P_D = (T_J(\text{max}) - T_A) / \theta_{JA}$ . Operating at the absolute maximum T<sub>J</sub> of 150°C can affect reliability.
- (7) The package thermal impedance is calculated in accordance with JESD 51-7.

### Recommended Operating Conditions

|                  |                                | MIN     | MAX | UNIT |
|------------------|--------------------------------|---------|-----|------|
| V <sub>CC+</sub> | Supply voltage                 | 5       | 15  | V    |
| V <sub>CC-</sub> |                                | –5      | –15 |      |
| T <sub>A</sub>   | Operating free-air temperature | RC4558  | 0   | °C   |
|                  |                                | RC4558I | –40 |      |

# RC4558

## DUAL GENERAL-PURPOSE OPERATIONAL AMPLIFIER

SLOS073E – MARCH 1976 – REVISED FEBRUARY 2006

### Electrical Characteristics

at specified free-air temperature,  $V_{CC+} = 15\text{ V}$ ,  $V_{CC-} = -15\text{ V}$

| PARAMETER       |                                                              | TEST CONDITIONS <sup>(1)</sup>                                                                | $T_A$ <sup>(2)</sup> | MIN | TYP | MAX | UNIT                   |
|-----------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------------|-----|-----|-----|------------------------|
| $V_{IO}$        | Input offset voltage                                         | $V_O = 0$                                                                                     | 25°C                 |     | 0.5 | 6   | mV                     |
|                 |                                                              |                                                                                               | Full range           |     |     | 7.5 |                        |
| $I_{IO}$        | Input offset current                                         | $V_O = 0$                                                                                     | 25°C                 |     | 5   | 200 | nA                     |
|                 |                                                              |                                                                                               | Full range           |     |     | 300 |                        |
| $I_{IB}$        | Input bias current                                           | $V_O = 0$                                                                                     | 25°C                 |     | 150 | 500 | nA                     |
|                 |                                                              |                                                                                               | Full range           |     |     | 800 |                        |
| $V_{ICR}$       | Common-mode input voltage range                              |                                                                                               | 25°C                 | ±12 | ±14 |     | V                      |
| $V_{OM}$        | Maximum output voltage swing                                 | $R_L = 10\text{ k}\Omega$                                                                     | 25°C                 | ±12 | ±14 |     | V                      |
|                 |                                                              | $R_L = 2\text{ k}\Omega$                                                                      | 25°C                 | ±10 | ±13 |     |                        |
|                 |                                                              |                                                                                               | Full range           | ±10 |     |     |                        |
| $A_{VD}$        | Large-signal differential voltage amplification              | $R_L \geq \text{k}\Omega$ ,<br>$V_O = \pm 10\text{ V}$                                        | 25°C                 | 20  | 300 |     | V/mV                   |
|                 |                                                              |                                                                                               | Full range           | 15  |     |     |                        |
| $B_1$           | Unity-gain bandwidth                                         |                                                                                               | 25°C                 |     | 3   |     | MHz                    |
| $r_i$           | Input resistance                                             |                                                                                               | 25°C                 | 0.3 | 5   |     | M $\Omega$             |
| CMRR            | Common-mode rejection ratio                                  |                                                                                               | 25°C                 | 70  | 90  |     | dB                     |
| $k_{SVS}$       | Supply-voltage sensitivity ( $\Delta V_{IO}/\Delta V_{CC}$ ) | $V_{CC} = \pm 15\text{ V}$<br>to $\pm 9\text{ V}$                                             | 25°C                 |     | 30  | 150 | $\mu\text{V/V}$        |
| $V_n$           | Equivalent input noise voltage (closed loop)                 | $A_{VD} = 100$ ,<br>$R_S = 100\text{ }\Omega$ ,<br>$f = 1\text{ kHz}$ ,<br>$BW = 1\text{ Hz}$ | 25°C                 |     | 8   |     | nV/ $\sqrt{\text{Hz}}$ |
| $I_{CC}$        | Supply current (both amplifiers)                             | $V_O = 0$ ,<br>No load                                                                        | 25°C                 |     | 2.5 | 5.6 | mA                     |
|                 |                                                              |                                                                                               | $T_A$ min            |     | 3   | 6.6 |                        |
|                 |                                                              |                                                                                               | $T_A$ max            |     | 2.3 | 5   |                        |
| $P_D$           | Total power dissipation (both amplifiers)                    | $V_O = 0$ ,<br>No load                                                                        | 25°C                 |     | 75  | 170 | mW                     |
|                 |                                                              |                                                                                               | $T_A$ min            |     | 90  | 200 |                        |
|                 |                                                              |                                                                                               | $T_A$ max            |     | 70  | 150 |                        |
| $V_{O1}/V_{O2}$ | Crosstalk attenuation                                        | Open loop                                                                                     | 25°C                 |     | 85  |     | dB                     |
|                 |                                                              | $A_{VD} = 100$                                                                                |                      |     | 105 |     |                        |

(1) All characteristics are measured under open-loop conditions with zero common-mode input voltage, unless otherwise specified.

(2) Full range is 0°C to 70°C for RC4558 and -40°C to 85°C for RC4558I.

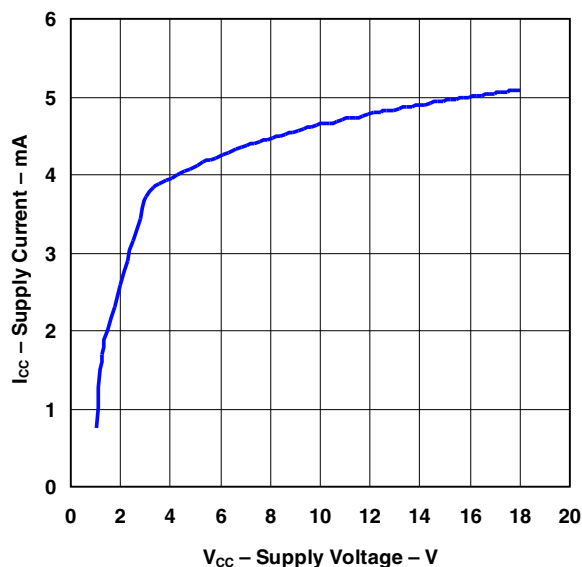
### Operating Characteristics

$V_{CC+} = 15\text{ V}$ ,  $V_{CC-} = -15\text{ V}$ ,  $T_A = 25^\circ\text{C}$

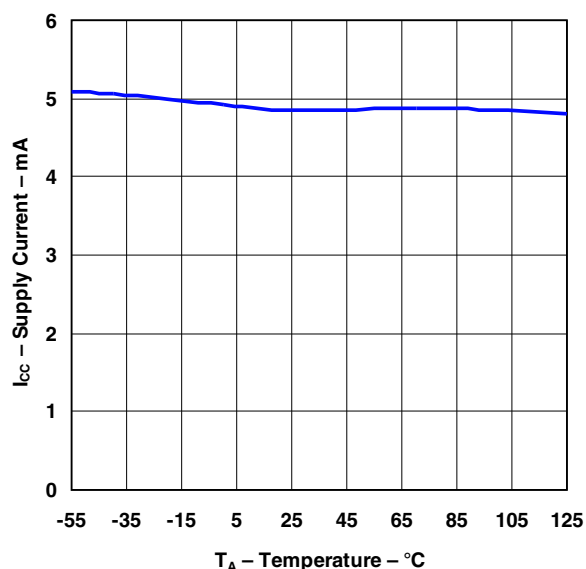
| PARAMETER |                         | TEST CONDITIONS        |                            |                       | MIN | TYP  | MAX | UNIT             |
|-----------|-------------------------|------------------------|----------------------------|-----------------------|-----|------|-----|------------------|
| $t_r$     | Rise time               | $V_I = 20\text{ mV}$ , | $R_L = 2\text{ k}\Omega$ , | $C_L = 100\text{ pF}$ |     | 0.13 |     | ns               |
|           | Overshoot               | $V_I = 20\text{ mV}$ , | $R_L = 2\text{ k}\Omega$ , | $C_L = 100\text{ pF}$ |     | 5    |     | %                |
| SR        | Slew rate at unity gain | $V_I = 10\text{ V}$ ,  | $R_L = 2\text{ k}\Omega$ , | $C_L = 100\text{ pF}$ | 1.1 | 1.7  |     | V/ $\mu\text{s}$ |

## TYPICAL CHARACTERISTICS

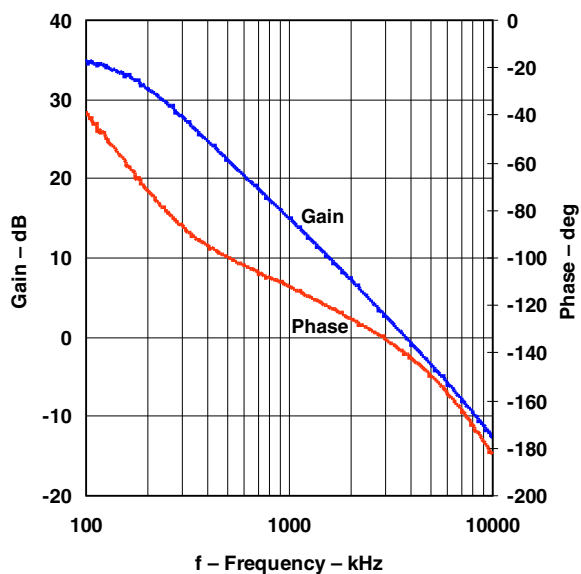
SUPPLY CURRENT  
vs  
SUPPLY VOLTAGE  
( $T_A = 25^\circ\text{C}$ )



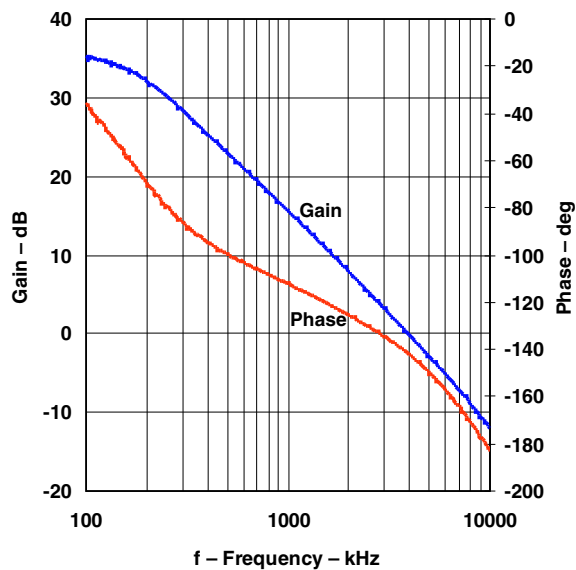
SUPPLY CURRENT  
vs  
TEMPERATURE  
( $V_{CC} = \pm 15\text{ V}$ )



GAIN AND PHASE  
vs  
FREQUENCY  
( $V_{CC} = \pm 15\text{ V}$ ,  $R_L = 2\text{ k}\Omega$ ,  $C_L = 22\text{ pF}$ )

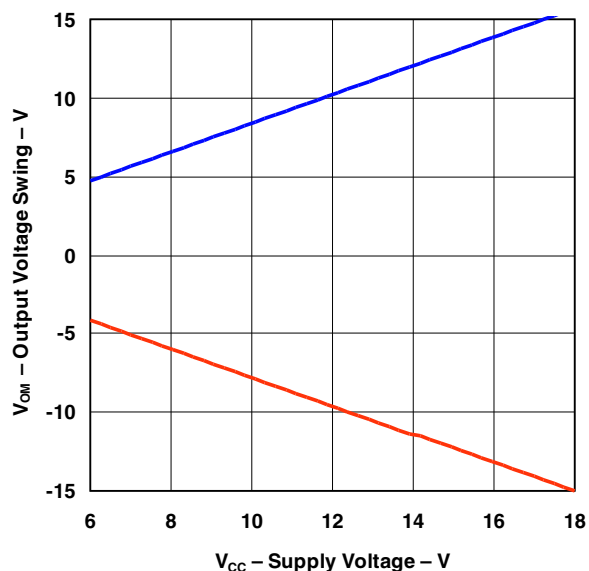


GAIN AND PHASE  
vs  
FREQUENCY  
( $V_{CC} = \pm 15\text{ V}$ ,  $R_L = 10\text{ k}\Omega$ ,  $C_L = 22\text{ pF}$ )

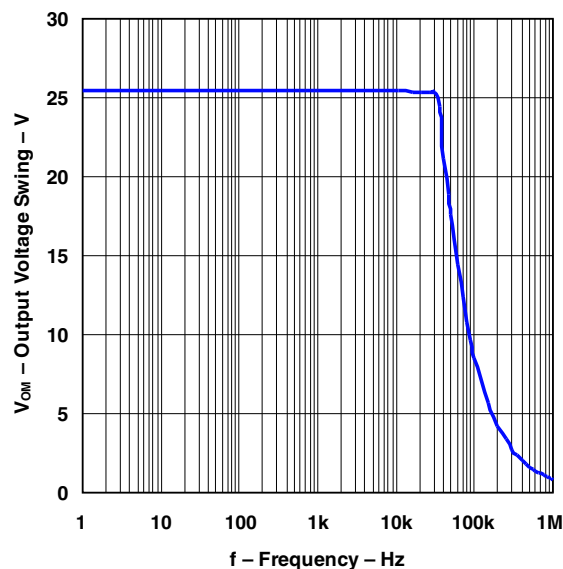


## TYPICAL CHARACTERISTICS (continued)

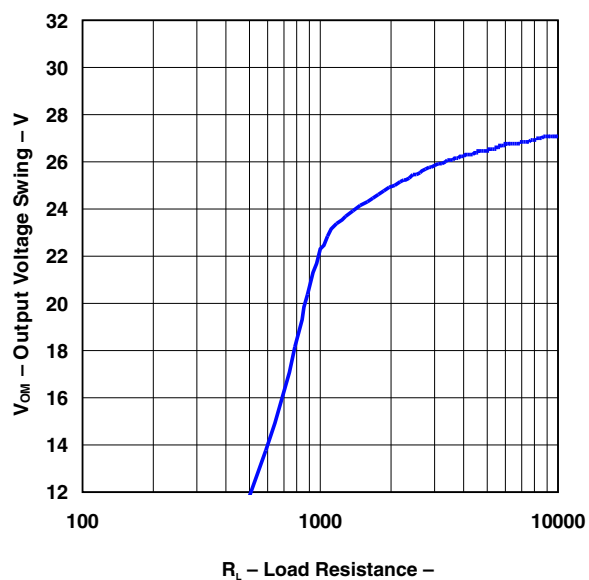
OUTPUT VOLTAGE SWING  
vs  
SUPPLY VOLTAGE  
( $R_L = 2\text{ k}\Omega$ ,  $T_A = 25^\circ\text{C}$ )



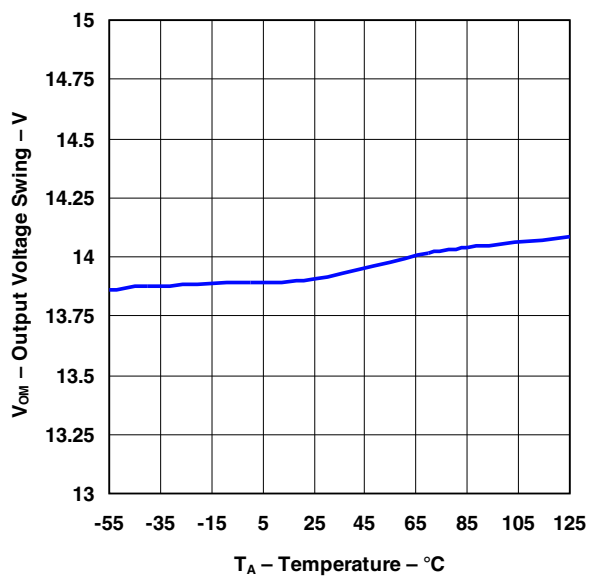
OUTPUT VOLTAGE SWING  
vs  
FREQUENCY  
( $V_{CC} = \pm 15\text{ V}$ ,  $R_L = 2\text{ k}\Omega$ ,  $T_A = 25^\circ\text{C}$ )



OUTPUT VOLTAGE SWING  
vs  
LOAD RESISTANCE  
( $V_{CC} = \pm 15\text{ V}$ ,  $T_A = 25^\circ\text{C}$ )



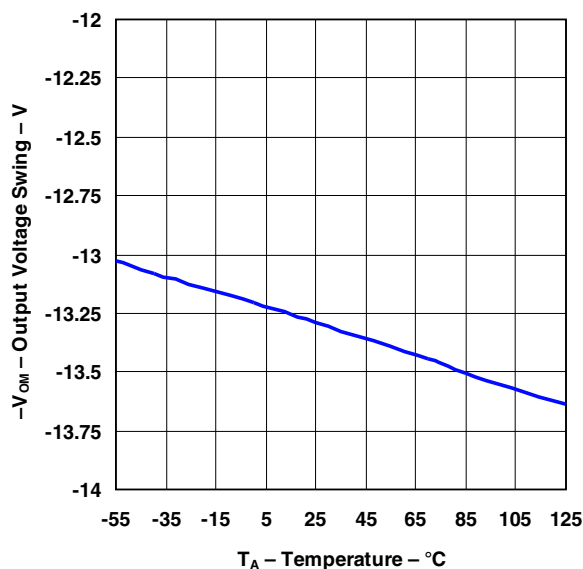
OUTPUT VOLTAGE SWING  
vs  
TEMPERATURE  
( $V_{CC} = \pm 15\text{ V}$ ,  $R_L = 10\text{ k}\Omega$ )



# TYPICAL CHARACTERISTICS (continued)

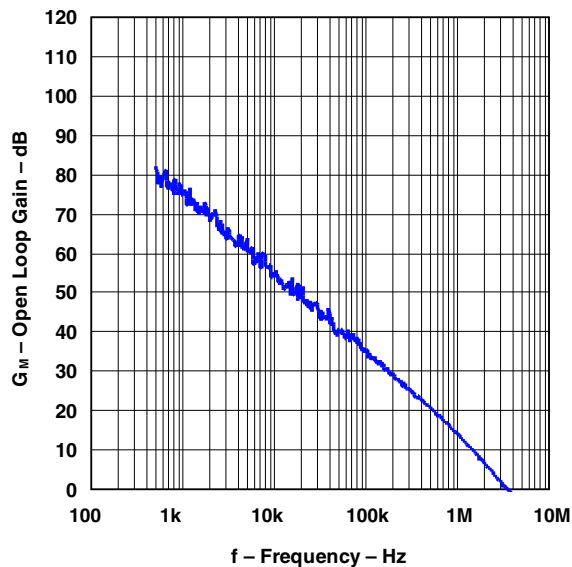
NEGATIVE OUTPUT VOLTAGE SWING

VS  
TEMPERATURE  
( $V_{CC} = \pm 15\text{ V}$ ,  $R_L = 10\text{ k}\Omega$ )



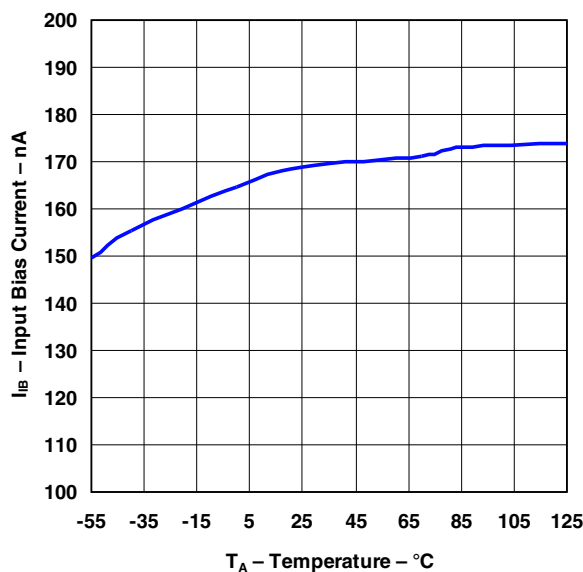
OPEN LOOP GAIN

VS  
FREQUENCY  
( $V_{CC} = \pm 15\text{ V}$ ,  $R_L = 2\text{ k}\Omega$ ,  $C_L = 22\text{ pF}$ ,  $T_A = 25^\circ\text{C}$ )



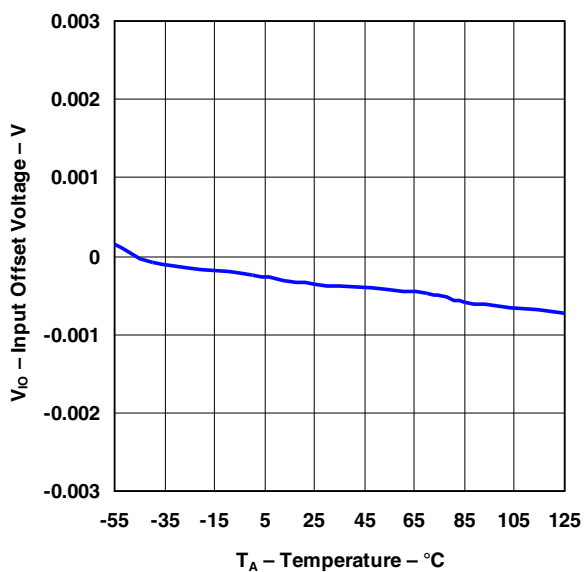
INPUT BIAS CURRENT

VS  
TEMPERATURE  
( $V_{CC} = \pm 15\text{ V}$ )



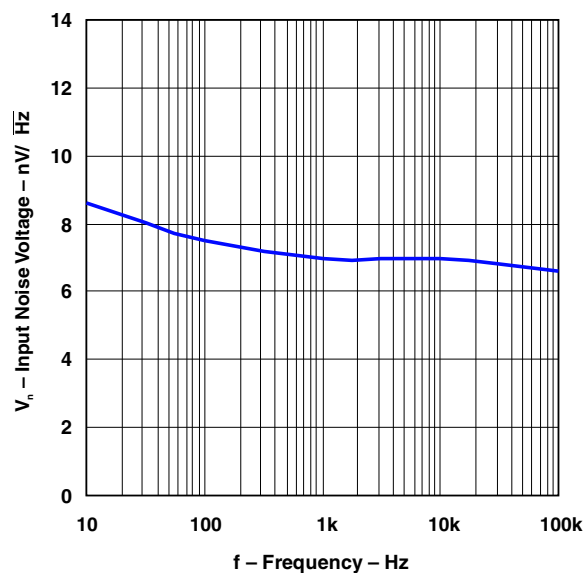
INPUT OFFSET VOLTAGE

VS  
TEMPERATURE  
( $V_{CC} = \pm 15\text{ V}$ )



TYPICAL CHARACTERISTICS (continued)

INPUT NOISE VOLTAGE  
vs  
FREQUENCY  
( $V_{CC} = \pm 15\text{ V}$ ,  $T_A = 25^\circ\text{C}$ )



**PACKAGING INFORMATION**

| Orderable Device | Status <sup>(1)</sup> | Package Type | Package Drawing | Pins | Package Qty | Eco Plan <sup>(2)</sup> | Lead/Ball Finish | MSL Peak Temp <sup>(3)</sup> |
|------------------|-----------------------|--------------|-----------------|------|-------------|-------------------------|------------------|------------------------------|
| RC4558D          | ACTIVE                | SOIC         | D               | 8    | 75          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DE4        | ACTIVE                | SOIC         | D               | 8    | 75          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DG4        | ACTIVE                | SOIC         | D               | 8    | 75          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DGKR       | ACTIVE                | MSOP         | DGK             | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DGKRG4     | ACTIVE                | MSOP         | DGK             | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DR         | ACTIVE                | SOIC         | D               | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DRE4       | ACTIVE                | SOIC         | D               | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558DRG4       | ACTIVE                | SOIC         | D               | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558ID         | ACTIVE                | SOIC         | D               | 8    | 75          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDE4       | ACTIVE                | SOIC         | D               | 8    | 75          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDG4       | ACTIVE                | SOIC         | D               | 8    | 75          | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDGKR      | ACTIVE                | MSOP         | DGK             | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDGKRG4    | ACTIVE                | MSOP         | DGK             | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDR        | ACTIVE                | SOIC         | D               | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDRE4      | ACTIVE                | SOIC         | D               | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IDRG4      | ACTIVE                | SOIC         | D               | 8    | 2500        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IP         | ACTIVE                | PDIP         | P               | 8    | 50          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |
| RC4558IPE4       | ACTIVE                | PDIP         | P               | 8    | 50          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |
| RC4558IPW        | ACTIVE                | TSSOP        | PW              | 8    | 150         | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IPWE4      | ACTIVE                | TSSOP        | PW              | 8    | 150         | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IPWG4      | ACTIVE                | TSSOP        | PW              | 8    | 150         | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IPWR       | ACTIVE                | TSSOP        | PW              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IPWRE4     | ACTIVE                | TSSOP        | PW              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558IPWRG4     | ACTIVE                | TSSOP        | PW              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558P          | ACTIVE                | PDIP         | P               | 8    | 50          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |

| Orderable Device | Status <sup>(1)</sup> | Package Type | Package Drawing | Pins | Package Qty | Eco Plan <sup>(2)</sup> | Lead/Ball Finish | MSL Peak Temp <sup>(3)</sup> |
|------------------|-----------------------|--------------|-----------------|------|-------------|-------------------------|------------------|------------------------------|
| RC4558PE4        | ACTIVE                | PDIP         | P               | 8    | 50          | Pb-Free (RoHS)          | CU NIPDAU        | N / A for Pkg Type           |
| RC4558PSLE       | OBSOLETE              | SO           | PS              | 8    |             | TBD                     | Call TI          | Call TI                      |
| RC4558PSR        | ACTIVE                | SO           | PS              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PSRE4      | ACTIVE                | SO           | PS              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PSRG4      | ACTIVE                | SO           | PS              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PW         | ACTIVE                | TSSOP        | PW              | 8    | 150         | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PWE4       | ACTIVE                | TSSOP        | PW              | 8    | 150         | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PWG4       | ACTIVE                | TSSOP        | PW              | 8    | 150         | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PWLE       | OBSOLETE              | TSSOP        | PW              | 8    |             | TBD                     | Call TI          | Call TI                      |
| RC4558PWR        | ACTIVE                | TSSOP        | PW              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PWRE4      | ACTIVE                | TSSOP        | PW              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558PWRG4      | ACTIVE                | TSSOP        | PW              | 8    | 2000        | Green (RoHS & no Sb/Br) | CU NIPDAU        | Level-1-260C-UNLIM           |
| RC4558Y          | OBSOLETE              | DIESALE      | Y               | 0    |             | TBD                     | Call TI          | Call TI                      |

<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

**Pb-Free (RoHS):** TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.

**Pb-Free (RoHS Exempt):** This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.

**Green (RoHS & no Sb/Br):** TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)

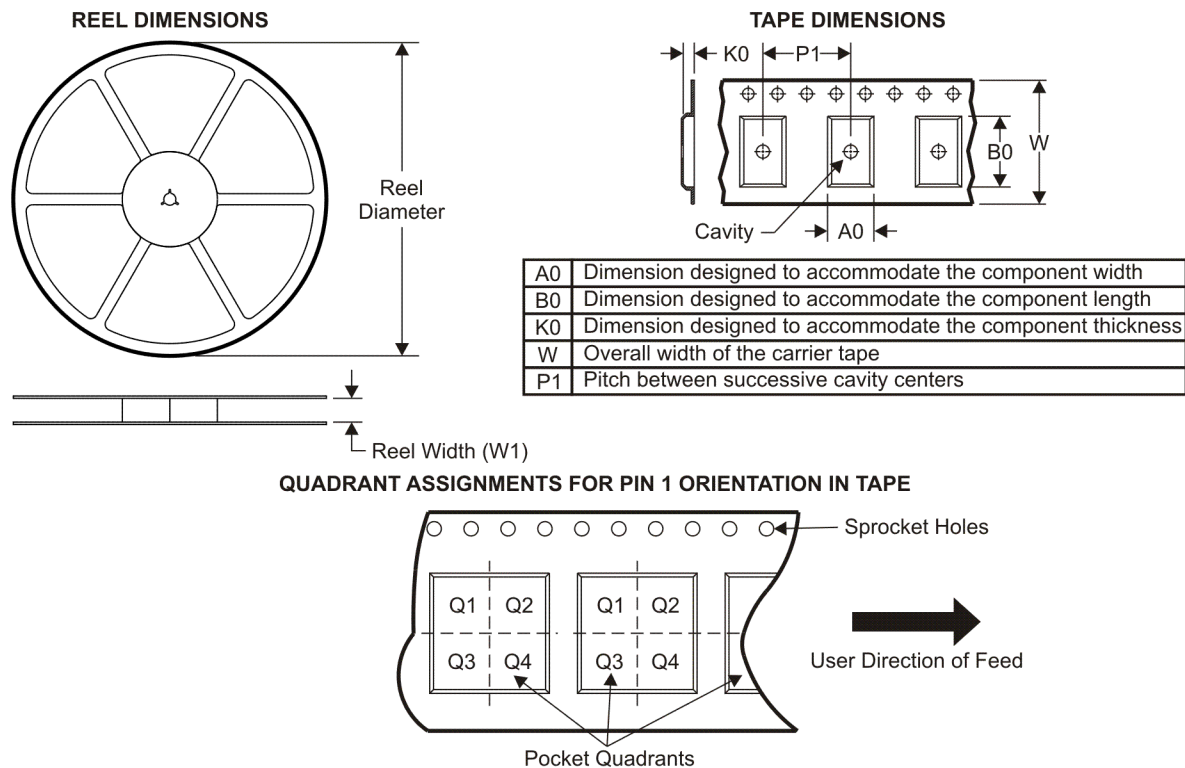
<sup>(3)</sup> MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

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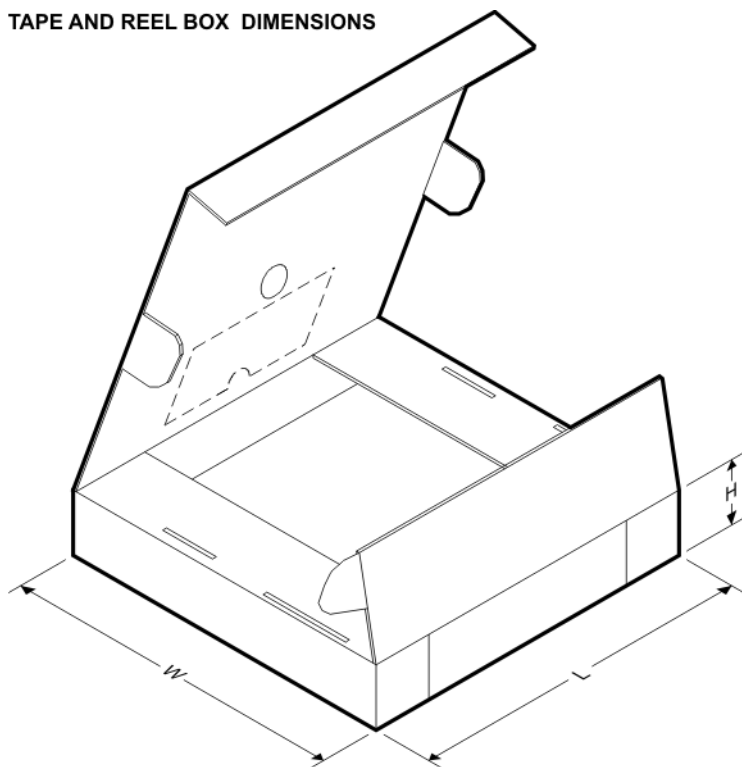
**TAPE AND REEL INFORMATION**



\*All dimensions are nominal

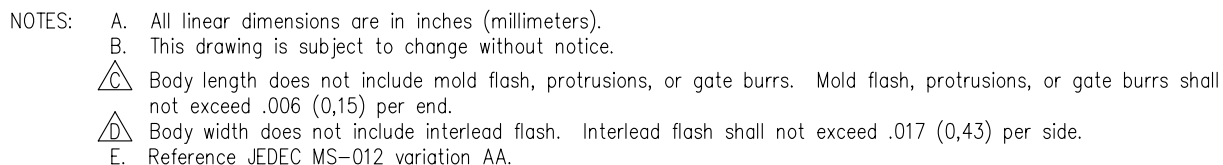
| Device      | Package Type | Package Drawing | Pins | SPQ  | Reel Diameter (mm) | Reel Width W1 (mm) | A0 (mm) | B0 (mm) | K0 (mm) | P1 (mm) | W (mm) | Pin1 Quadrant |
|-------------|--------------|-----------------|------|------|--------------------|--------------------|---------|---------|---------|---------|--------|---------------|
| RC4558DGKR  | MSOP         | DGK             | 8    | 2500 | 330.0              | 12.4               | 5.3     | 3.3     | 1.3     | 8.0     | 12.0   | Q1            |
| RC4558DGKR  | MSOP         | DGK             | 8    | 2500 | 330.0              | 13.0               | 5.3     | 3.4     | 1.4     | 8.0     | 12.0   | Q1            |
| RC4558DR    | SOIC         | D               | 8    | 2500 | 330.0              | 12.4               | 6.4     | 5.2     | 2.1     | 8.0     | 12.0   | Q1            |
| RC4558DR    | SOIC         | D               | 8    | 2500 | 330.0              | 12.4               | 6.4     | 5.2     | 2.1     | 8.0     | 12.0   | Q1            |
| RC4558IDGKR | MSOP         | DGK             | 8    | 2500 | 330.0              | 13.0               | 5.3     | 3.4     | 1.4     | 8.0     | 12.0   | Q1            |
| RC4558IDGKR | MSOP         | DGK             | 8    | 2500 | 330.0              | 12.4               | 5.3     | 3.3     | 1.3     | 8.0     | 12.0   | Q1            |
| RC4558IDR   | SOIC         | D               | 8    | 2500 | 330.0              | 12.4               | 6.4     | 5.2     | 2.1     | 8.0     | 12.0   | Q1            |
| RC4558IPWR  | TSSOP        | PW              | 8    | 2000 | 330.0              | 12.4               | 7.0     | 3.6     | 1.6     | 8.0     | 12.0   | Q1            |
| RC4558PSR   | SO           | PS              | 8    | 2000 | 330.0              | 16.4               | 8.2     | 6.6     | 2.5     | 12.0    | 16.0   | Q1            |
| RC4558PWR   | TSSOP        | PW              | 8    | 2000 | 330.0              | 12.4               | 7.0     | 3.6     | 1.6     | 8.0     | 12.0   | Q1            |

**TAPE AND REEL BOX DIMENSIONS**



\*All dimensions are nominal

| Device      | Package Type | Package Drawing | Pins | SPQ  | Length (mm) | Width (mm) | Height (mm) |
|-------------|--------------|-----------------|------|------|-------------|------------|-------------|
| RC4558DGKR  | MSOP         | DGK             | 8    | 2500 | 370.0       | 355.0      | 55.0        |
| RC4558DGKR  | MSOP         | DGK             | 8    | 2500 | 358.0       | 335.0      | 35.0        |
| RC4558DR    | SOIC         | D               | 8    | 2500 | 346.0       | 346.0      | 29.0        |
| RC4558DR    | SOIC         | D               | 8    | 2500 | 340.5       | 338.1      | 20.6        |
| RC4558IDGKR | MSOP         | DGK             | 8    | 2500 | 358.0       | 335.0      | 35.0        |
| RC4558IDGKR | MSOP         | DGK             | 8    | 2500 | 370.0       | 355.0      | 55.0        |
| RC4558IDR   | SOIC         | D               | 8    | 2500 | 340.5       | 338.1      | 20.6        |
| RC4558IPWR  | TSSOP        | PW              | 8    | 2000 | 346.0       | 346.0      | 29.0        |
| RC4558PSR   | SO           | PS              | 8    | 2000 | 346.0       | 346.0      | 33.0        |
| RC4558PWR   | TSSOP        | PW              | 8    | 2000 | 346.0       | 346.0      | 29.0        |



## PW (R-PDSO-G\*\*)

## PLASTIC SMALL-OUTLINE PACKAGE

14 PINS SHOWN

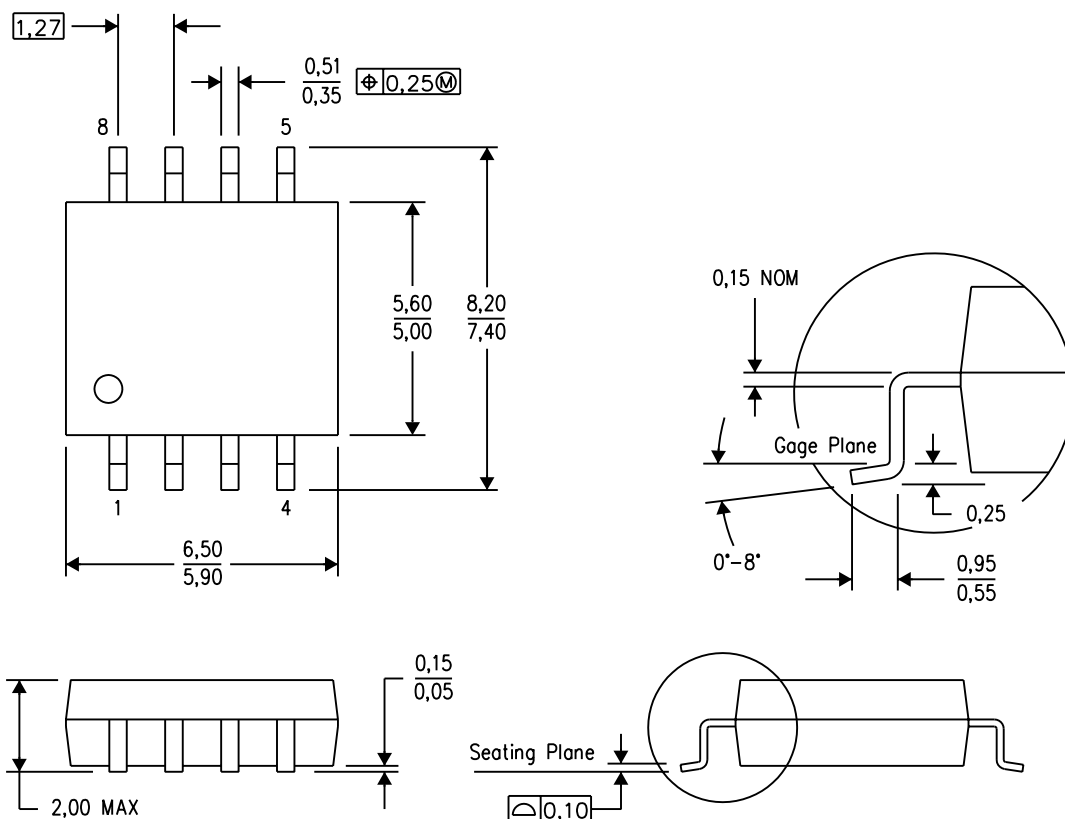


- NOTES: A. All linear dimensions are in millimeters.  
 B. This drawing is subject to change without notice.  
 C. Body dimensions do not include mold flash or protrusion not to exceed 0,15.  
 D. Falls within JEDEC MO-153

# MECHANICAL DATA

PS (R-PDSO-G8)

PLASTIC SMALL-OUTLINE PACKAGE

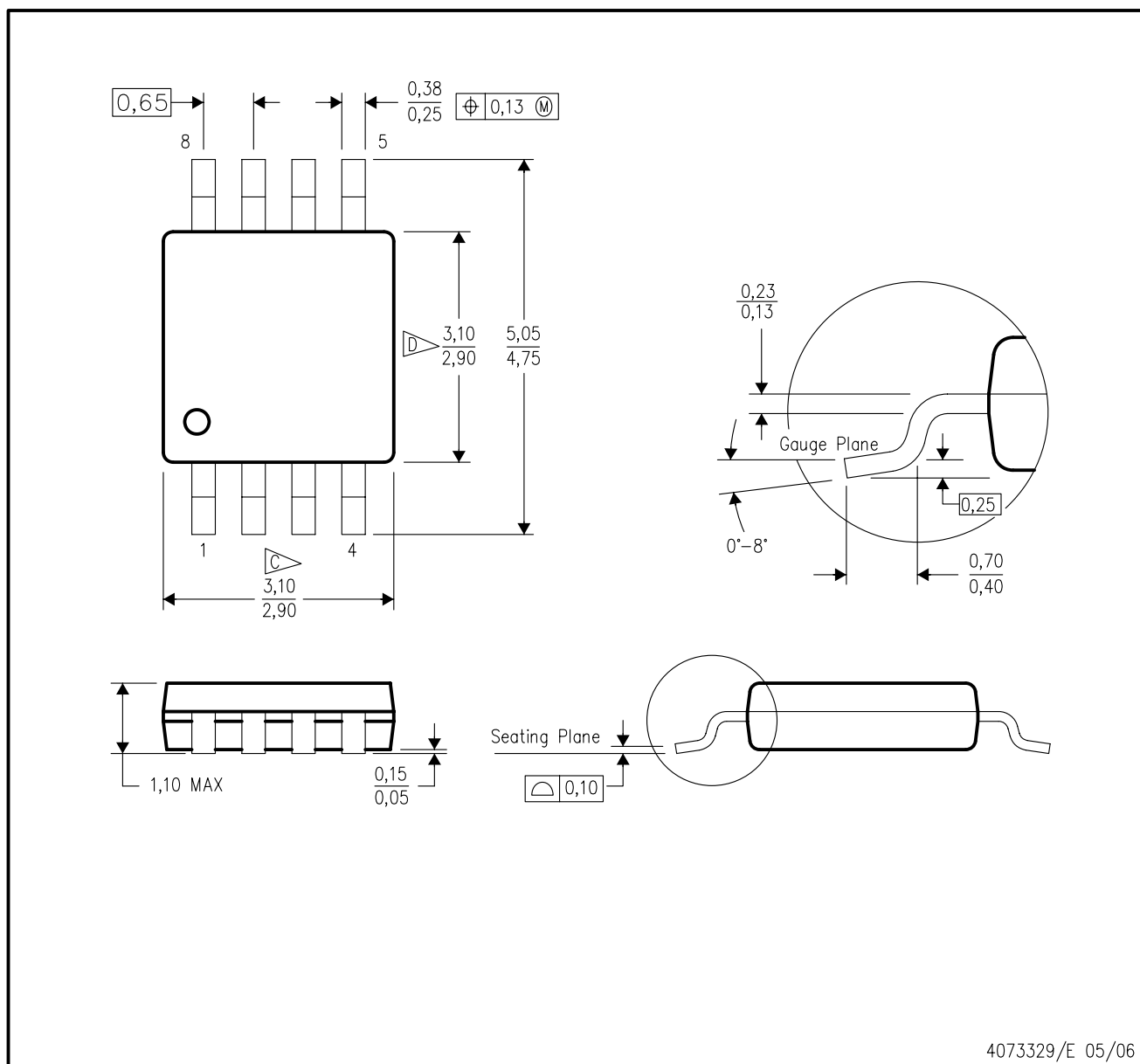


4040063/C 03/03

- NOTES:
- A. All linear dimensions are in millimeters.
  - B. This drawing is subject to change without notice.
  - C. Body dimensions do not include mold flash or protrusion, not to exceed 0,15.

DGK (S-PDSO-G8)

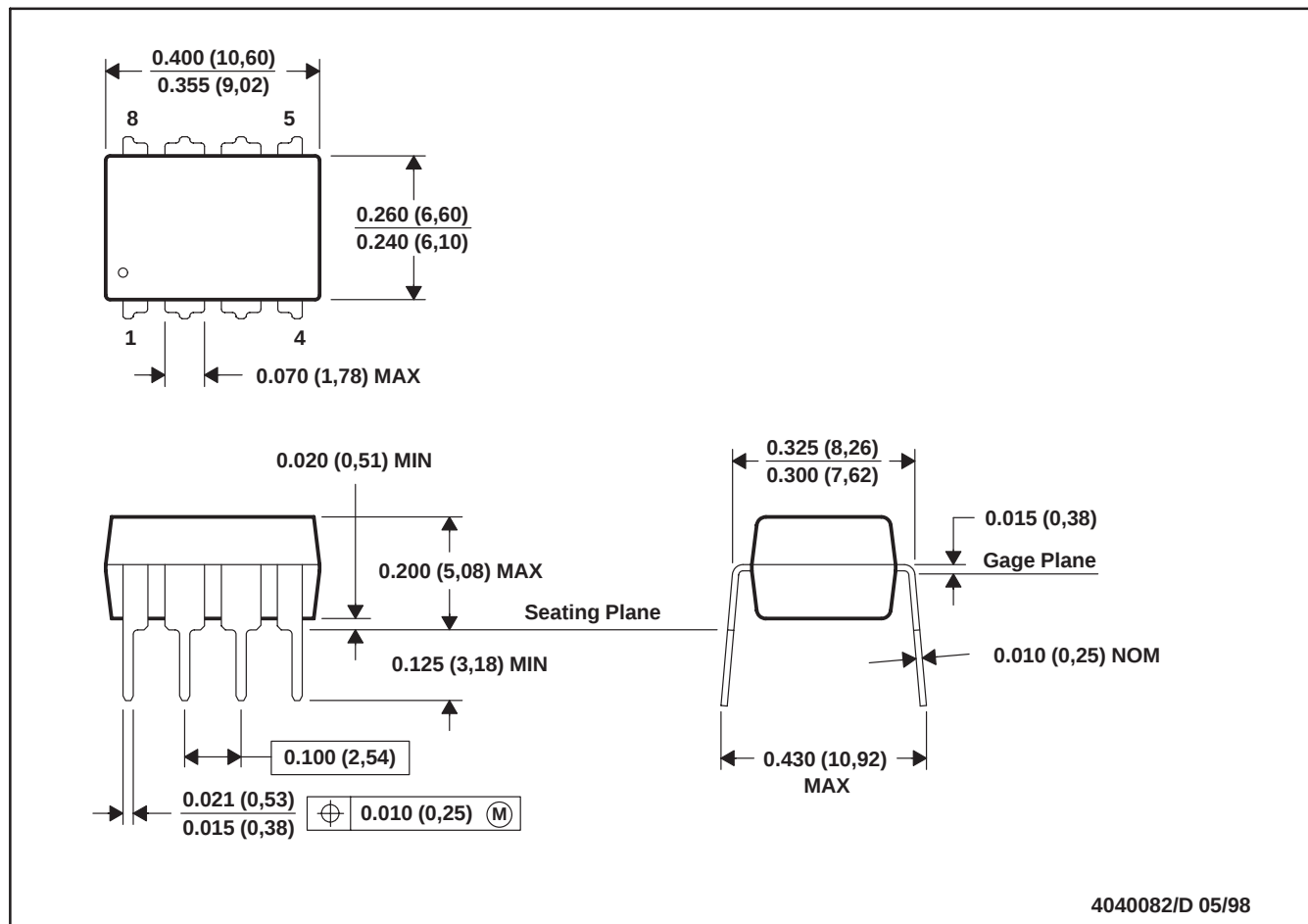
PLASTIC SMALL-OUTLINE PACKAGE



- NOTES:
- A. All linear dimensions are in millimeters.
  - B. This drawing is subject to change without notice.
  - C. Body length does not include mold flash, protrusions, or gate burrs. Mold flash, protrusions, or gate burrs shall not exceed 0.15 per end.
  - D. Body width does not include interlead flash. Interlead flash shall not exceed 0.50 per side.
  - E. Falls within JEDEC MO-187 variation AA, except interlead flash.

## P (R-PDIP-T8)

## PLASTIC DUAL-IN-LINE



- NOTES: A. All linear dimensions are in inches (millimeters).  
 B. This drawing is subject to change without notice.  
 C. Falls within JEDEC MS-001

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