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SOP-8

Dual Voltage Comparator in a SOP-8 Plastic Package.

$V_{CC}=2V\sim 36V$

$V_{CC}= \pm 1V\sim \pm 18V$

$I_{CC}=0.8mA$

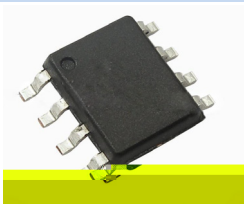
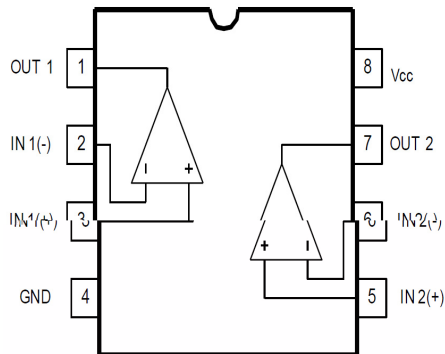
$I_{bias}=25nA$

TTL DTL CMOS

Wide operating supply range, Single or dual supply operation( $V_{CC}=2V\sim 36V$  or  $V_{CC}= \pm 1V\sim \pm 18V$ ).  
 Input common-mode voltage includes ground.  
 Low supply current drain:  $I_{CC}=0.8mA$ (Typical).  
 Low input bias current  $I_{bias}=25nA$ (Typical).  
 Output compatible with TTL,DTL,and CMOS logic system.  
 Halogen-free Product.

MOS

Basic comparator circuit,Low frequency operation and amplification circuit,MOS clock generator.



PIN

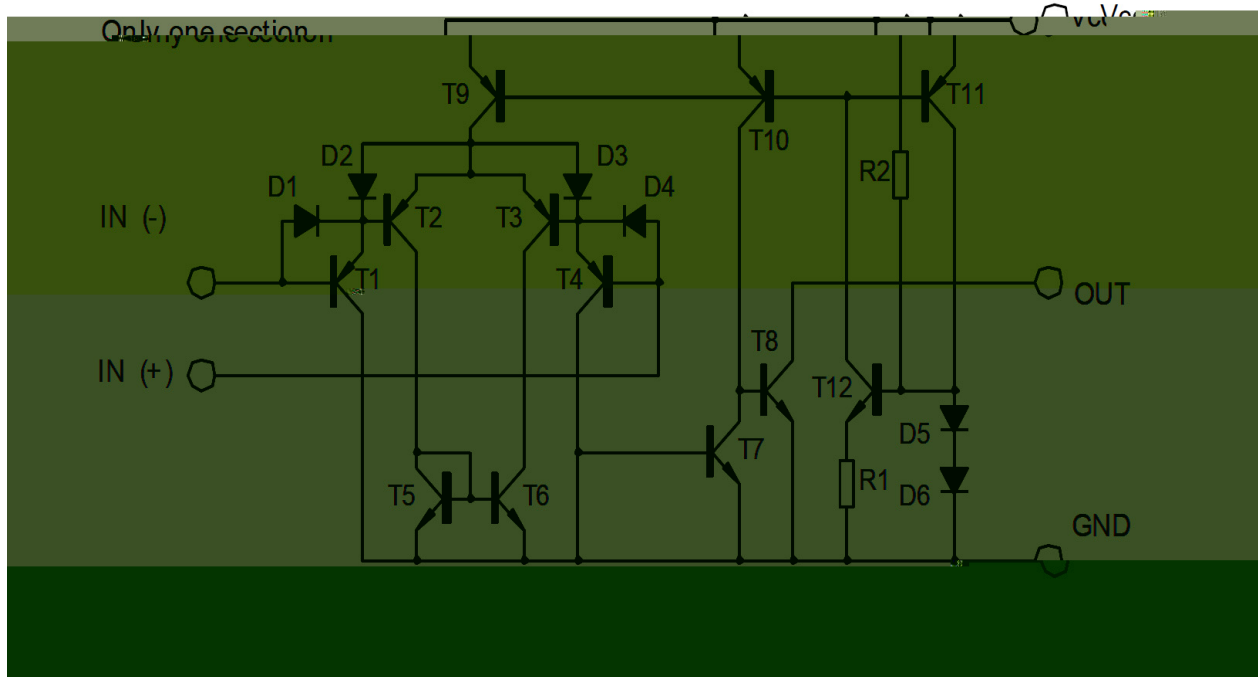
/ PIN See Equivalent Circuit.

/ See Marking Instructions

| Parameter                  | Symbol        | Rating         | Unit |
|----------------------------|---------------|----------------|------|
| Supply Voltage             | $V_{CC}$      | $\pm 18$ or 36 | V    |
| Differential input voltage | $V_{I(DIFF)}$ | 36             | V    |
| Input Voltage              | $V_I$         | -0.3~36        | V    |
| Power Dissipation          | $P_D$         | 570            | mW   |
| Operating Temperature      | $T_{opr}$     | 0 ~ +70        |      |
| Storage Temperature        | $T_{stg}$     | -65 ~ +150     |      |

| Parameter                       | Symbol        | Test Conditions                                                             | Min | Typ       | Max          | Unit |
|---------------------------------|---------------|-----------------------------------------------------------------------------|-----|-----------|--------------|------|
| Input offset voltage            | $V_{IO}$      | $V_{CM}=0$ to $V_{CC}-1.5$<br>$V_{O(p)}=1.4V$ , $R_s=0$                     |     | $\pm 1.0$ | $\pm 5.0$    | mV   |
| Input offset current            | $I_{IO}$      |                                                                             |     | $\pm 5.0$ | $\pm 50$     | nA   |
| Input Bias current              | $I_b$         |                                                                             |     | 25        | 250          | nA   |
| Common Mode Input Voltage Range | $V_{I(R)}$    |                                                                             | 0   |           | $V_{CC}-1.5$ | V    |
| Supply Current                  | $I_{CC}$      | $R_L = \infty$                                                              |     | 0.6       | 1.0          | mA   |
|                                 |               | $R_L = \infty$ $V_{CC}=30V$                                                 |     | 0.8       | 2.5          | mA   |
| Large signal Voltage Gain       | $G_V$         | $V_{CC}=15V$ $R_L$ 15k $\Omega$                                             | 50  | 200       |              | V/mV |
| Large signal response time      | $T_{ires}$    | $V_i=TLL$ logic wing,<br>$V_{ref}=1.4V$ $V_{RL}=5V$<br>$R_L=5.1$ k $\Omega$ |     | 350       |              | ns   |
| Response time                   | $T_{res}$     | $V_{RL}=5V$ $R_L=5.1$ k $\Omega$                                            |     | 1400      |              | ns   |
| Output sink current             | $I_{sink}$    | $V_i(-)>1V$ $V_i(+)=0V$<br>$V_{O(p)}<1.5V$                                  | 6   | 18        |              | mA   |
| Output saturation voltage       | $V_{sat}$     | $V_i(-)>1V$ $V_i(+)=0V$<br>$I_{sink}=4mA$                                   |     | 160       | 400          | mV   |
| output leakage current          | $I_{leakage}$ | $V_i(+)=1V$ $V_i(-)=0$<br>$V_{O(p)}=5V$                                     |     | 0.1       |              | nA   |

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Fig.7 voltage Follower pulse response  
(small signal)

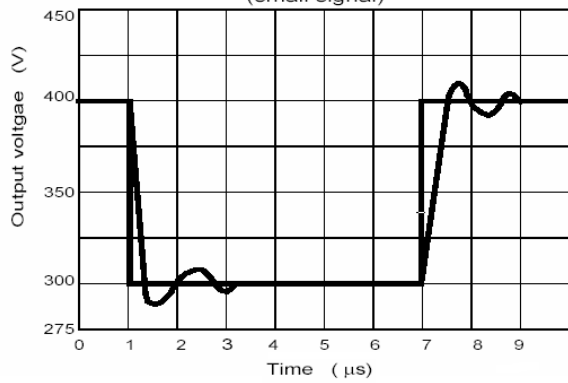


Fig.8 Large signal Frequency Response

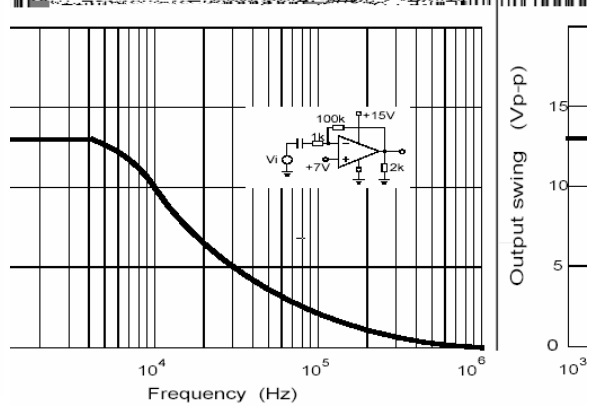


Fig.9 Output Characteristics  
current sourcing

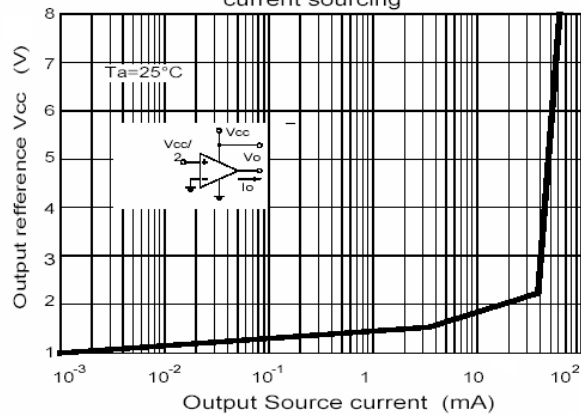


Fig.10 Output Characteristics Current sinking

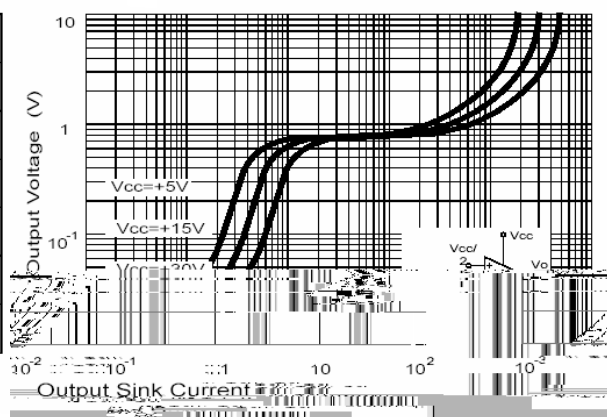
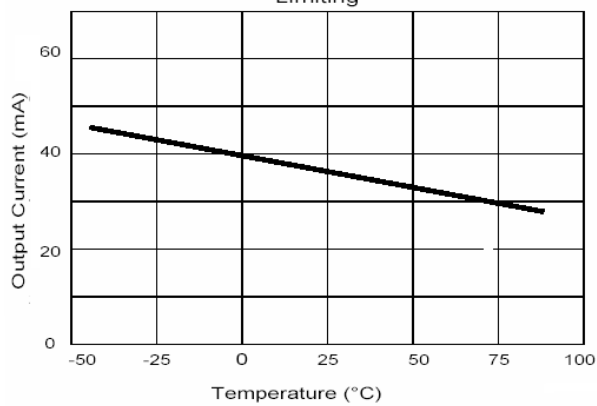
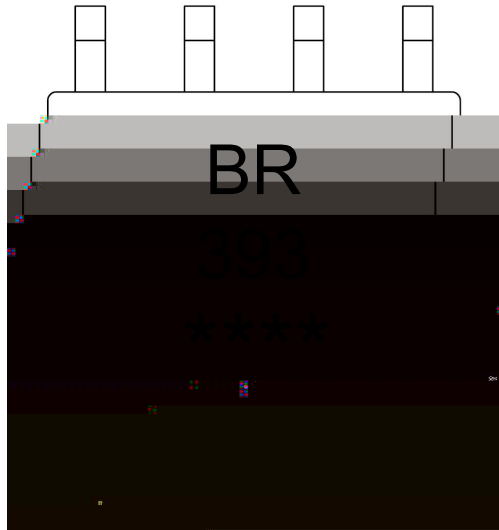


Fig.11 Current  
Limiting







BR

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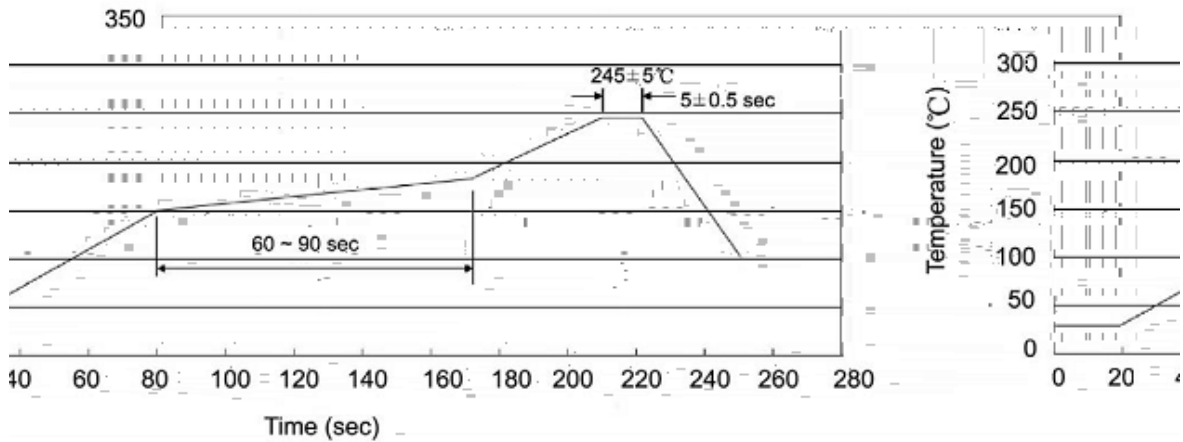
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Note:

BR: Company Code.

393: Product Type.

\*\*\*\*: Lot No. Code, code change with Lot No.



Note:

- 1

150 180

60 90sec;
- 2

245±5

5±0.5sec;
- 3

2 10

/sec.
- 1.Preheating:150~180

, Time:60~90sec.
- 2.Peak Temp.:245±5

, Duration:5±0.5sec.
3. Cooling Speed: 2~10

/sec.

260±5                      10±1 sec.                      Temp.:260±5                      Time:10±1 sec

/ REEL

| Package Type<br>封装形式 | Units 包装数量 |      |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|------|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 卷盘       | 卷盘 盒 | 只 盒 | 盒 箱 | 只 箱 |                                         | 盒 | 箱 |
|                      |            |      |     |     |     |                                         |   |   |