

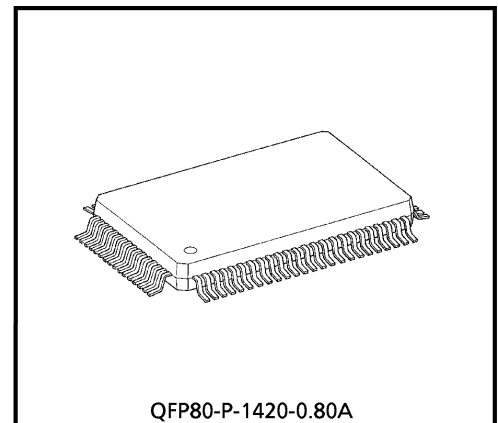
# T6M72, JT6M72-AS

## T6M72, JT6M72-AS CMOS SINGLE-CHIP LSI FOR LCD CALCULATOR

The T6M72, JT6M72-AS is a CMOS single-chip microcomputer for 14-digit or 12-digit 2-memory calculator.

T6M72, JT6M72-AS is the complete single-chip CMOS LSI for calculator with single power supply operation. Wide operating voltage range and low-power consumption make it suitable for 1.5 V solar battery operated.

Besides T6M72, JT6M72-AS can selectable with a pin-programmable to function of Power timer and Memory hold. With the following features.



Weight : 1.52 g (Typ.)

### FEATURES

- Display : 14 digits or 12 digits (selectable with a pin-programmable) of data, 2 digits of sign, error symbol, memory load symbol.
- Algebraic mode.
- Standard 4 functions (+, -, ×, ÷)
- Memory and grand total (GT) memory calculation.
- Accumulating GT memory register with count up (down) item counter.
- Automatic percentage operation with add-on, discount.
- Automatic delta percentage, mark-up and markdown operations.
- Square root.
- Constant calculation.
- Chain calculation.
- Change sign.
- Floating point or momentary mode (selectable with a switch).
- Fixed point ("0", "1", "2", "3", "4" or "6" places) or floating point (selectable with a switch).
- Adding point mode (selectable with a switch).

980910EBA2

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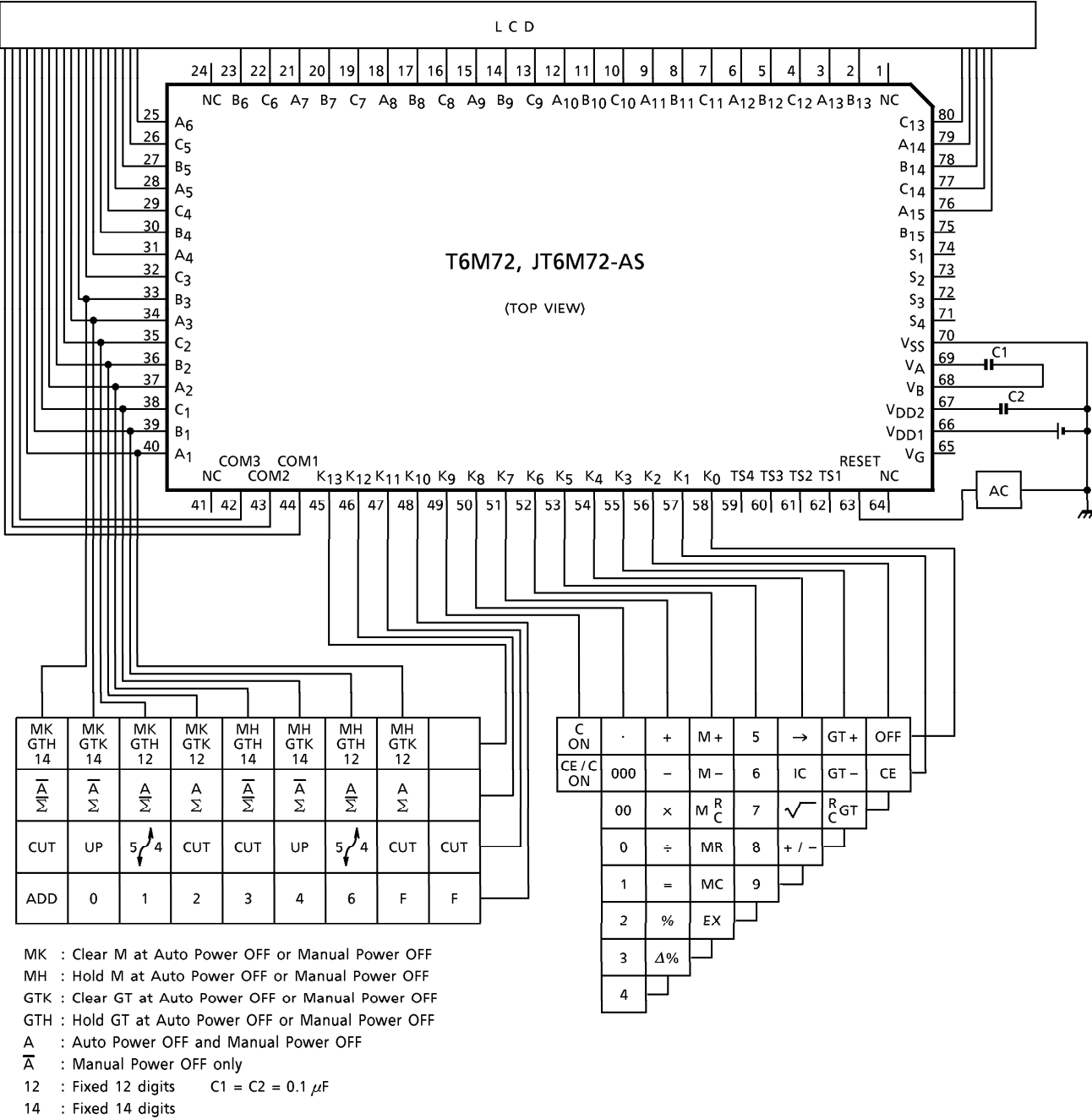
- Rounding switches (rounding up, down and off).
- Leading zero suppression.
- Trailing zero suppression.
- Punctuation on display, commas for thousands.
- Memory and GT memory contents indicator, turned on with non-zero in the memory and GT memory.
- Registration overflow, indicating that too many digits are entered (the most significant digit are protected).
- Result overflow, indicating during calculation (most function key are locked as it happened).
- Memory overflow indicating to flashing of memory load mark.
- Key roll over function.
- Floating minus.

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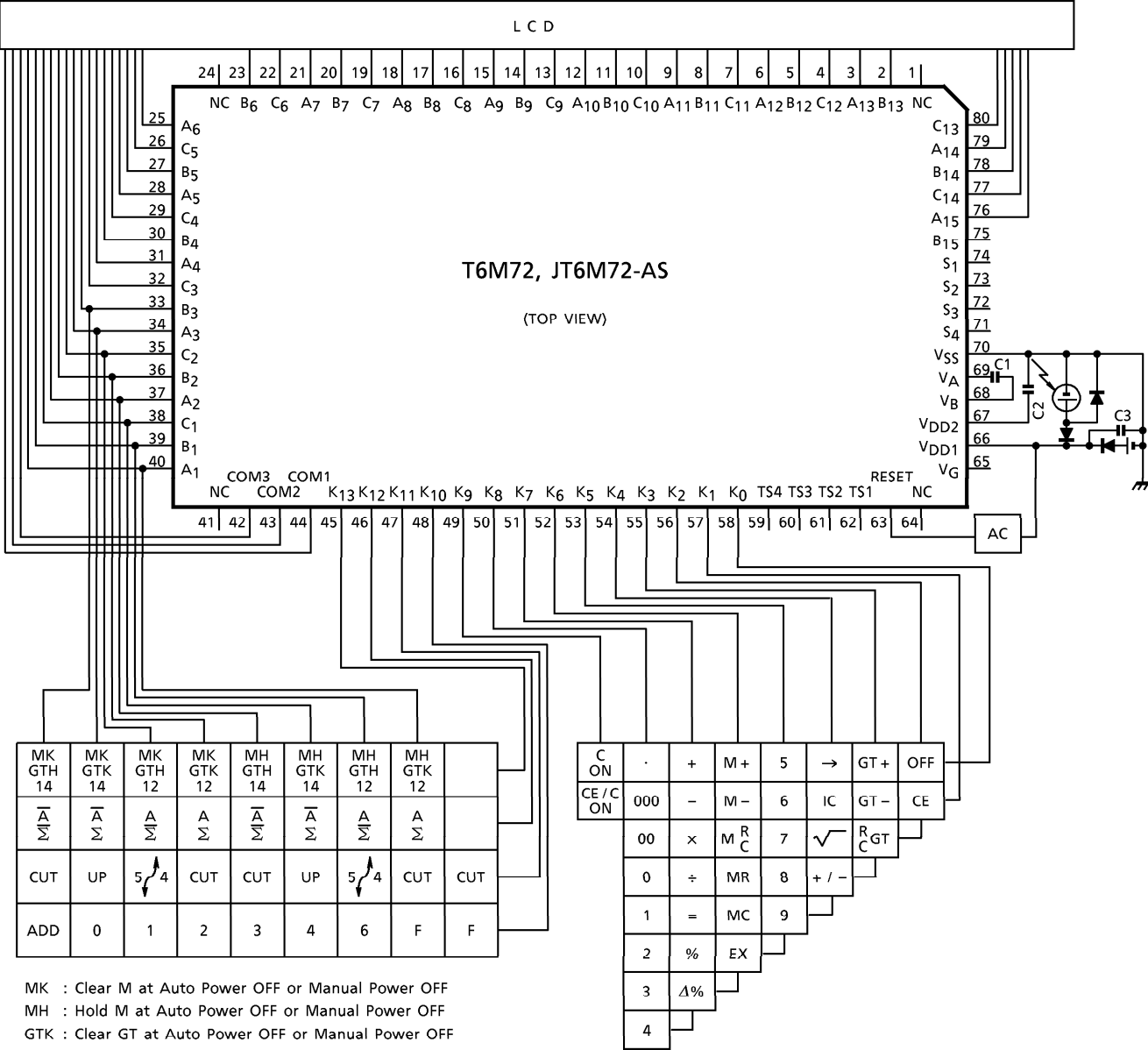
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SYSTEM BLOCK DIAGRAM

Battery Type

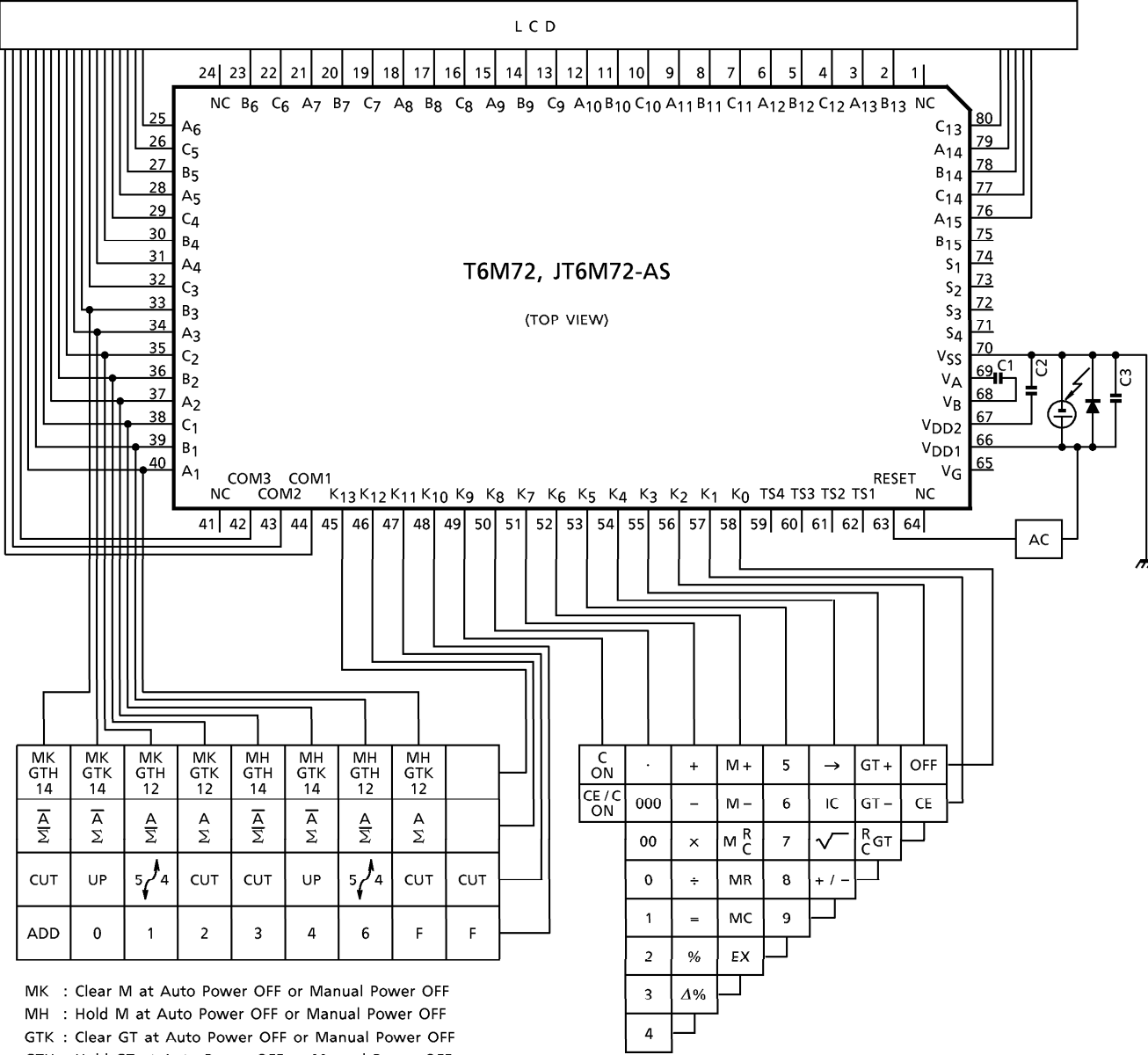


Dual Type



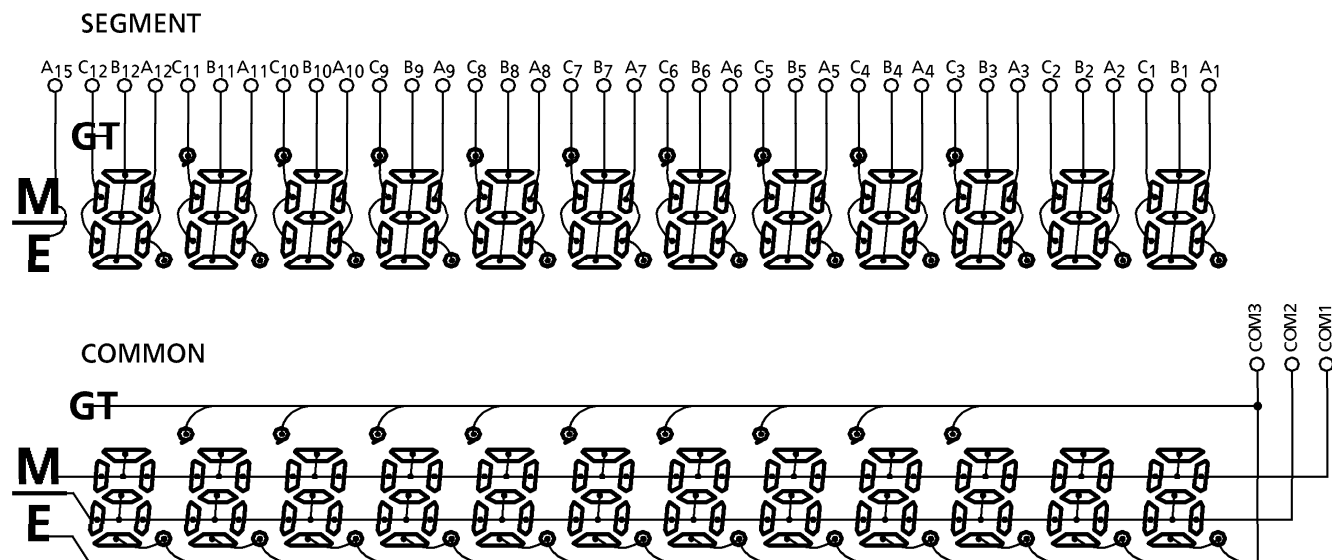
MK : Clear M at Auto Power OFF or Manual Power OFF  
MH : Hold M at Auto Power OFF or Manual Power OFF  
GTK : Clear GT at Auto Power OFF or Manual Power OFF  
GTH : Hold GT at Auto Power OFF or Manual Power OFF  
A : Auto Power OFF and Manual Power OFF  
 $\bar{A}$  : Manual Power OFF only  
12 : Fixed 12 digits C1 = C2 = 0.1  $\mu$ F  
14 : Fixed 14 digits C3 = 10  $\mu$ F

Solar Type

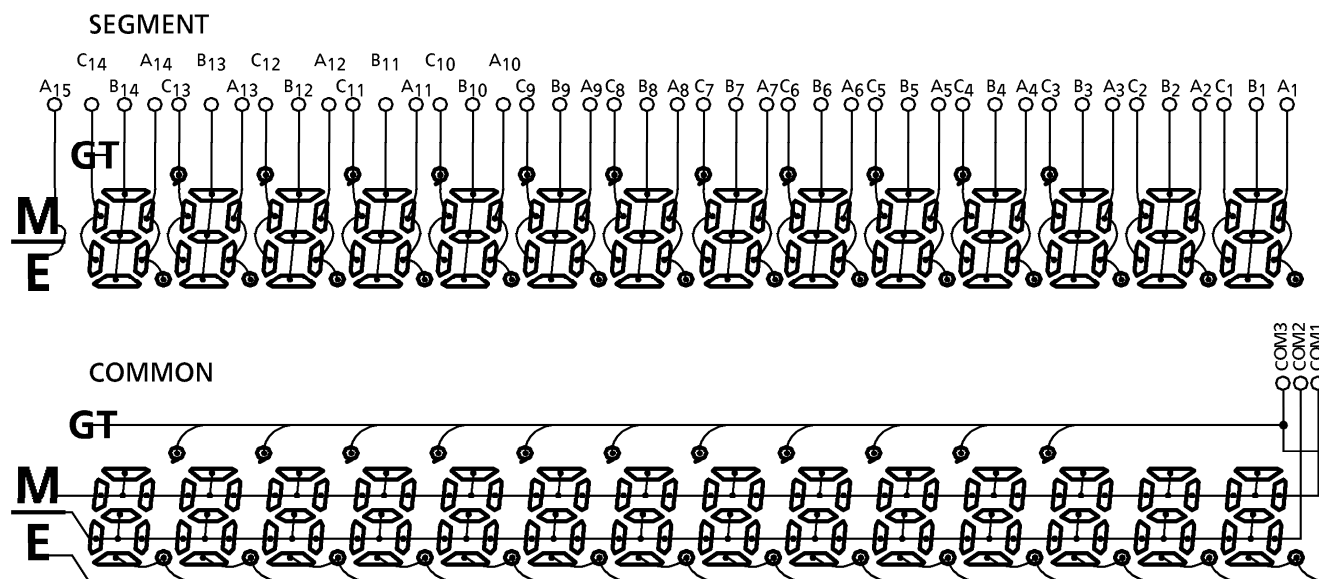


## CONNECTION OF LCD

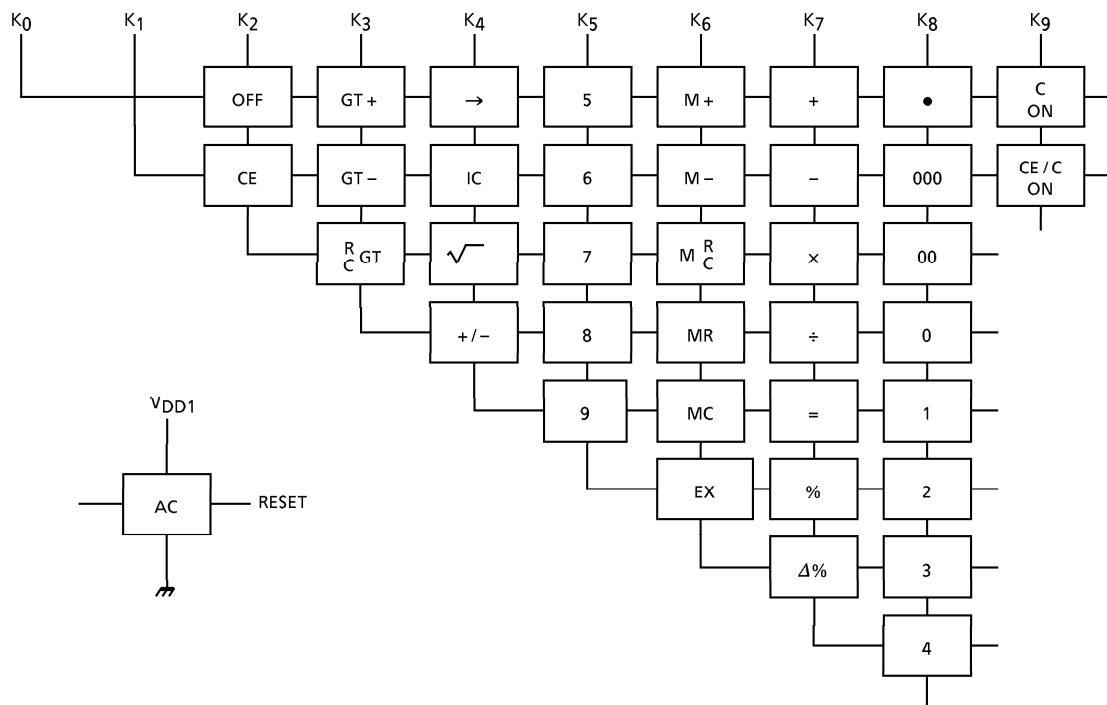
## (1) Select of 12 digits



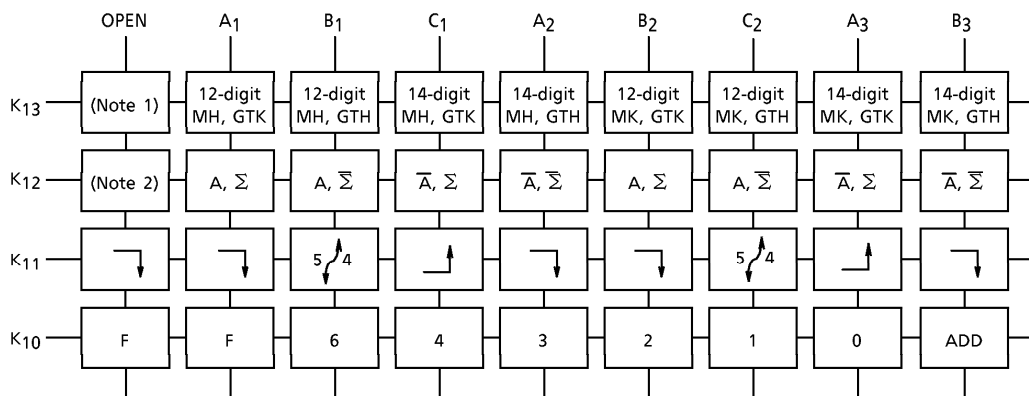
## (2) Select of 14 digits



## KEY CONNECTION



Touch Key

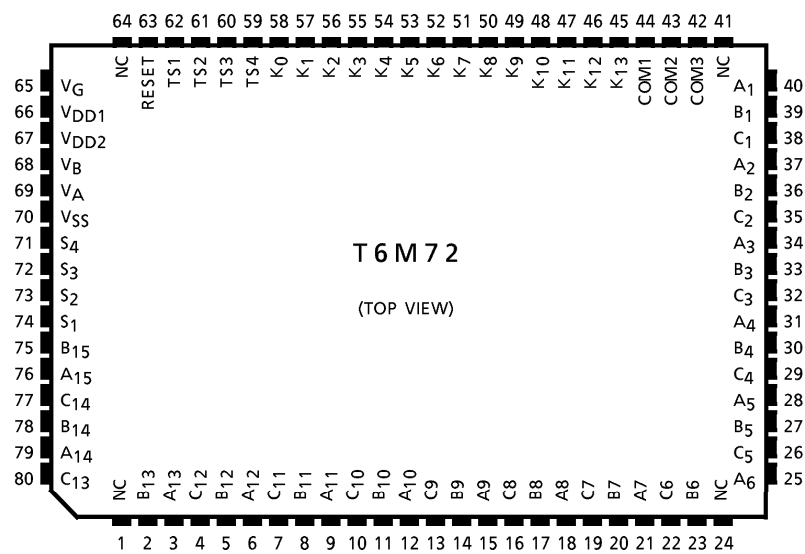


Lock Key

- K13 .... Selectable with Calculated Digits and Memory Hold Status.  
 MH (Memory Hold), MK (Memory Kill), GTH (GT memory Hold) and GTK (GT memory Kill) at Auto Power OFF or OFF Key.
- K12 .... Selectable with Auto Power OFF mode and Total switch.
- K11 .... Rounding switches.
- K10 .... Selectable with Fixed point or Floating mode.

(Note 1, Note 2) : K12 or K13 line is No choose then keep condition.  
 K12 or K13 line is No choose at the system power on then initial condition is 12-digits  $\overline{A}$ ,  $\overline{\Sigma}$  Mode selected.

PIN CONNECTION



SPECIFICATION OF CALCULATOR

Speed of calculation

|                       |                                                                                                                           |              |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------|--------------|
| Numeral               | .....                                                                                                                     | 22.4~38.5 ms |
| Function              | { 1 $\boxed{+}$ ..... 45.5 ms<br>1 $\boxed{+}$ 2 $\boxed{+}$ ..... 80.7 ms                                                |              |
| Addition and Subtract | { 1 2 3 $\boxed{+}$ 1 $\boxed{=}$ ..... 106.2 ms<br>99999999999999 $\boxed{-}$ 0.0000000000001 $\boxed{=}$ ..... 135.4 ms |              |
| Multiply              | { 1 2 3 $\boxed{\times}$ 2 $\boxed{=}$ ..... 125.9 ms<br>1 $\boxed{\times}$ 99999999999999 $\boxed{=}$ ..... 291.9 ms     |              |
| Device                | { 1 2 3 $\boxed{\div}$ 3 $\boxed{=}$ ..... 171.2 ms<br>99999999999999 $\boxed{\div}$ 1 $\boxed{=}$ ..... 334.8 ms         |              |
| Memory calculation    | { 2 $\boxed{M+}$ ..... 90.5 ms<br>99999999999999 $\boxed{\div}$ 1 $\boxed{M+}$ ..... 329.1 ms                             |              |
| Square root           | { 99999999999999 $\boxed{\sqrt{\phantom{x}}}$ ..... 132.6 ms<br>2 $\boxed{\sqrt{\phantom{x}}}$ ..... 131.7 ms             |              |

Operation Example

1. Fixed point calculations

| ① Key          | Display | Fixed point Place |
|----------------|---------|-------------------|
| <div>C</div>   | 0.      | DP = 3 (5 / 4)    |
| 2              | 2.      |                   |
| <div>÷</div>   | 2.      |                   |
| 3              | 3.      |                   |
| <div>=</div>   | 0.667   |                   |
| 2              | 2.      |                   |
| <div>·</div>   | 2.      |                   |
| 3              | 2.3     |                   |
| <div>+</div>   | 2.3     |                   |
| 4              | 4.      |                   |
| <div>M +</div> | 6.300   |                   |
| 1              | 1.      |                   |
| <div>·</div>   | 1.      |                   |
| 2              | 1.2     |                   |
| <div>M +</div> | 1.200   |                   |
| <div>MR</div>  | 7.5     | DP = 4            |

| ② Key        | Display | Fixed point Place       |
|--------------|---------|-------------------------|
| <div>C</div> | 0.      | DP = 0 ( <div>↱</div> ) |
| 1            | 1.      |                         |
| <div>·</div> | 1.      |                         |
| 2            | 1.2     |                         |
| 3            | 1.23    |                         |
| <div>+</div> | 1.23    |                         |
| 1            | 1.      |                         |
| <div>·</div> | 1.      |                         |
| 1            | 1.1     |                         |
| <div>=</div> | 3.      |                         |
| 9            | 9.      |                         |
| <div>√</div> | 3.      |                         |
| <div>×</div> | 3.      |                         |
| 1            | 1.      |                         |
| <div>·</div> | 1.      |                         |
| 1            | 1.1     | DP = F                  |
| <div>=</div> | 3.3     |                         |

2. Adding point mode calculations

| Key              | Display | Key             | Display | Key                          | Display  |
|------------------|---------|-----------------|---------|------------------------------|----------|
| $\boxed{C}$      | 0.      | $\boxed{M+}$    | 0.02M   | $\boxed{=}$                  | 33.27M – |
| 1                | 1.      | 3               | 3.M     | 2                            | 2.M      |
| 23               | 123     | $\boxed{\cdot}$ | 3.M     | $\boxed{+}$                  | 0.02M    |
| $\boxed{+}$      | 1.23    | 123             | 3.123M  | 9                            | 9.M      |
| 3                | 3.      | $\boxed{M+}$    | 3.12M   | $\boxed{\cdot}$              | 9.M      |
| $\boxed{=}$      | 1.26    | $\boxed{MR}$    | 3.14M   | $\boxed{\sqrt{\phantom{x}}}$ | 3.M      |
| 3                | 3.      | $\boxed{C}$     | 0.M     | $\boxed{=}$                  | 3.02M    |
| 2                | 32.     | 1               | 1.M     |                              |          |
| $\boxed{\times}$ | 32.     | 23              | 123M    |                              |          |
| 3                | 3.      | $\boxed{-}$     | 1.23M   |                              |          |
| $\boxed{\cdot}$  | 3.      | 3               | 3.M     |                              |          |
| 000              | 3.000   | 4               | 34.M    |                              |          |
| $\boxed{=}$      | 96.00   | $\boxed{\cdot}$ | 34.M    |                              |          |
| 2                | 2.      | 5               | 34.5M   |                              |          |

3. Constant calculations

① Multiplication

| Key              | Display | Constant |
|------------------|---------|----------|
| k                | k       |          |
| $\boxed{\times}$ | k       |          |
| a                | a       |          |
| $\boxed{=}$      | k·a     | k ×      |
| b                | b       | k ×      |
| $\boxed{=}$      | k·b     | k ×      |

③ Addition

|             |       |     |
|-------------|-------|-----|
| a           | a     |     |
| $\boxed{+}$ | a     |     |
| k           | k     |     |
| $\boxed{=}$ | a + k | + k |
| b           | b     | + k |
| $\boxed{=}$ | b + k | + k |

② Division

| Key            | Display | Constant |
|----------------|---------|----------|
| a              | a       |          |
| $\boxed{\div}$ | a       |          |
| k              | k       |          |
| $\boxed{=}$    | a / k   | ÷ k      |
| b              | b       | ÷ k      |
| $\boxed{=}$    | b / k   | ÷ k      |

④ Subtraction

|             |       |     |
|-------------|-------|-----|
| a           | a     |     |
| $\boxed{-}$ | a     |     |
| k           | k     |     |
| $\boxed{=}$ | a – k | – k |
| b           | b     | – k |
| $\boxed{=}$ | b – k | – k |

⑤ Percentage

| Key      | Display           | Constant |
|----------|-------------------|----------|
| k        | k                 |          |
| $\times$ | k                 |          |
| a        | a                 |          |
| %        | $k \cdot a / 100$ | k x      |
| b        | b                 | k x      |
| %        | $k \cdot b / 100$ | k x      |

⑦ Add-on

|   |                         |     |
|---|-------------------------|-----|
| k | k                       |     |
| + | k                       |     |
| a | a                       |     |
| % | $k \cdot (1 + a / 100)$ | k + |
| b | b                       | k + |
| % | $k \cdot (1 + b / 100)$ | k + |

4. Δ% calculations

① Key Display

|    |                         |
|----|-------------------------|
| a  | a                       |
| +  | a                       |
| b  | b                       |
| Δ% | $100 \cdot (a + b) / b$ |

5. Mark-up, mark-down calculations

① Mark-up

| Key | Display               |
|-----|-----------------------|
| a   | a                     |
| ÷   | a                     |
| b   | b                     |
| Δ%  | $a / (1 - b / 100)$   |
| Δ%  | $ a / (1 - b / 100) $ |

⑥ Percentage

| Key | Display           | Constant |
|-----|-------------------|----------|
| a   | a                 |          |
| ÷   | a                 |          |
| k   | k                 |          |
| %   | $100 \cdot a / k$ | ÷ k      |
| b   | b                 | ÷ k      |
| %   | $100 \cdot b / k$ | ÷ k      |

⑧ Discount

|   |                         |     |
|---|-------------------------|-----|
| k | k                       |     |
| - | k                       |     |
| a | a                       |     |
| % | $k \cdot (1 - a / 100)$ | k - |
| b | b                       | k - |
| % | $k \cdot (1 - b / 100)$ | k - |

② Key Display

|    |                         |
|----|-------------------------|
| a  | a                       |
| -  | a                       |
| b  | b                       |
| Δ% | $100 \cdot (a - b) / b$ |

② Mark-down

| Key | Display                 |
|-----|-------------------------|
| a   | a                       |
| ÷   | a                       |
| b   | b                       |
| +/- | - b                     |
| Δ%  | $a / (1 + b / 100)$     |
| Δ%  | $a / (1 + b / 100) - a$ |

6. Add-on, discount calculations

Add-on

| Key        | Display                 |
|------------|-------------------------|
| ① a        | a                       |
| $\times$   | a                       |
| b          | b                       |
| $\%$       | $a \cdot b / 100$       |
| $+$        | $a \cdot b / 100$       |
| $=$        | $a (1 + b / 100)$       |
| ③ a        | a                       |
| $+$        | a                       |
| b          | b                       |
| $\%$       | $a (1 + b / 100)$       |
| ⑤ a        | a                       |
| $\times$   | a                       |
| b          | b                       |
| $\Delta\%$ | $a \cdot (1 + b / 100)$ |

Discount

| Key        | Display           |
|------------|-------------------|
| ② a        | a                 |
| $\times$   | a                 |
| b          | b                 |
| $\%$       | $a \cdot b / 100$ |
| $-$        | $a \cdot b / 100$ |
| $=$        | $a (1 - b / 100)$ |
| ④ a        | a                 |
| $-$        | a                 |
| b          | b                 |
| $\%$       | $a (1 - b / 100)$ |
| ⑥ a        | a                 |
| $\times$   | a                 |
| b          | b                 |
| $+/-$      | -b                |
| $\Delta\%$ | $a (1 - b / 100)$ |

7. Average operation use of the item counter

| Key | Display       | Item Counter |
|-----|---------------|--------------|
| a   | a             | 0            |
| $+$ | a             | 1            |
| b   | b             | 1            |
| $+$ | a + b         | 2            |
| c   | c             | 2            |
| $+$ | a + b + c     | 3            |
| d   | d             | 3            |
| $+$ | a + b + c + d | 4            |

| Key    | Display             | Item Counter |
|--------|---------------------|--------------|
| $-$    | a + b + c + d       | 2            |
| d      | d                   | 2            |
| $+$    | a + b + c           | 3            |
| e      | e                   | 3            |
| $=$    | a + b + c + e       | 4            |
| $\div$ | a + b + c + e       | 4            |
| IC     | 4                   | 4            |
| $=$    | (a + b + c + e) / 4 | 5            |

## MAXIMUM RATINGS

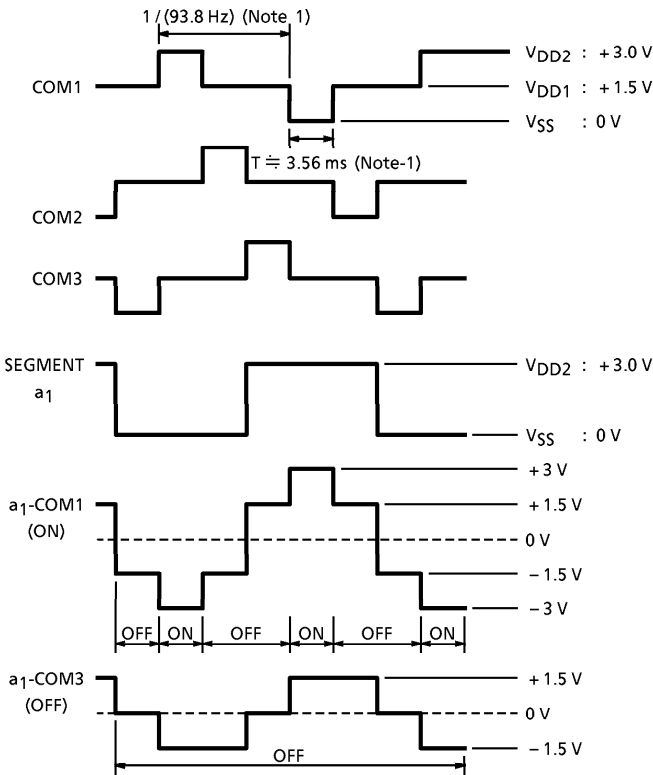
| CHARACTERISTICS       | SYMBOL    | RATING                    | UNIT |
|-----------------------|-----------|---------------------------|------|
| Supply Voltage        | $V_{DD1}$ | $-0.3 \sim 2.0$           | V    |
| Input Voltage         | $V_{IN}$  | $-0.3 \sim V_{DD1} + 0.3$ | V    |
| Operating Temperature | $T_{opr}$ | $0 \sim 40$               | °C   |
| Storage Temperature   | $T_{stg}$ | $-55 \sim 125$            | °C   |

ELECTRICAL CHARACTERISTICS ( $V_{DD1} = 1.5 \pm 0.2$  V,  $V_{DD2} = 3.0 \pm 0.4$  V,  $V_{SS} = 0$  V,  $T_a = 25^\circ\text{C}$ )

| CHARACTERISTICS          | SYMBOL          | TEST CIR-CUIT | PIN NAME                                 | TEST CONDITION              | MIN             | TYP. | MAX             | UNIT       |
|--------------------------|-----------------|---------------|------------------------------------------|-----------------------------|-----------------|------|-----------------|------------|
| Operating Voltage        | $V_{DD1}$       | —             | —                                        | —                           | 1.2             | 1.5  | 2.0             | V          |
| "1" Input Voltage        | $V_{IH}(1)$     | —             | K <sub>2</sub> ~K <sub>9</sub><br>RESET  | —                           | $V_{DD1} - 0.4$ | —    | $V_{DD1}$       | V          |
| "1" Input Voltage        | $V_{IH}(2)$     | —             | K <sub>10</sub> ~K <sub>13</sub>         | —                           | $V_{DD2} - 0.4$ | —    | $V_{DD2}$       | V          |
| "0" Input Voltage        | $V_{IL}$        | —             | K <sub>2</sub> ~K <sub>13</sub><br>RESET | —                           | 0               | —    | 0.4             | V          |
| "1" Output Voltage       | $V_{OH}(1)$     | —             | SEGMENT<br>COM1~3                        | —                           | $V_{DD2} - 0.2$ | —    | $V_{DD2}$       | V          |
| "0" Output Voltage       | $V_{OL}(1)$     | —             | SEGMENT<br>COM1~3                        | —                           | 0               | —    | 0.2             | V          |
| "M" Output Voltage       | $V_{OM}$        | —             | COM1~3                                   | —                           | $V_{DD1} - 0.2$ | —    | $V_{DD1} + 0.2$ | V          |
| "1" Output Voltage       | $V_{OH}(2)$     | —             | K <sub>1</sub> ~K <sub>9</sub>           | —                           | $V_{DD1} - 0.2$ | —    | $V_{DD1}$       | V          |
| "0" Output Voltage       | $V_{OL}(2)$     | —             | K <sub>1</sub> ~K <sub>13</sub>          | —                           | 0               | —    | 0.2             | V          |
| "1" Output Resistance    | $R_{OH}$        | —             | SEGMENT<br>COM1~3                        | $V_{OUT} = V_{DD2} - 0.5$ V | —               | —    | 70              | k $\Omega$ |
| "0" Output Resistance    | $R_{OL}$        | —             | SEGMENT<br>COM1~3                        | $V_{OUT} = 0.5$ V           | —               | —    | 70              | k $\Omega$ |
| KEY Pull Up Resistance   | $R_{KEYH}(1)$   | —             | RESET                                    | $V_{OUT} = V_{DD1} - 0.5$ V | —               | —    | 25              | k $\Omega$ |
|                          | $R_{KEYH}(2)$   | —             | K <sub>0</sub> ~K <sub>9</sub>           | $V_{OUT} = V_{DD1} - 0.5$ V | —               | —    | 14              | k $\Omega$ |
|                          | $R_{KEYH}(3)$   | —             | K <sub>10</sub> ~K <sub>13</sub>         | $V_{OUT} = 0$ V             | 120             | —    | 800             | k $\Omega$ |
| KEY Pull Down Resistance | $R_{KEYL}(1)$   | —             | RESET (1)                                | $V_{OUT} = V_{DD1}$         | 100             | —    | 300             | k $\Omega$ |
|                          | $R_{KEYL}(2)$   | —             | RESET (2)                                | $V_{OUT} = V_{DD1}$         | 18              | —    | 300             | k $\Omega$ |
|                          | $R_{KEYL}(3)$   | —             | K <sub>0</sub> ~K <sub>9</sub> (1)       | $V_{OUT} = 0.5$ V           | —               | —    | 50              | k $\Omega$ |
|                          | $R_{KEYL}(4)$   | —             | K <sub>0</sub> ~K <sub>9</sub> (2)       | $V_{OUT} = V_{DD1}$         | 72              | —    | 170             | k $\Omega$ |
| Oscillating (WAIT)       | $f_{\phi WAIT}$ | —             | —                                        | $V_{DD1} = 1.5$ V           | 5.4             | 9.0  | 15.5            | kHz        |
| Frequency (OPERATE)      | $f_{\phi OP}$   | —             | —                                        | $V_{DD1} = 1.5$ V           | 20.0            | 34   | 61.3            | kHz        |
| Frame Frequency          | $f_F$           | —             | SEGMENT<br>COM1~3                        | $V_{DD1} = 1.5$ V           | 56.3            | 93.8 | 161.5           | Hz         |

| CHARACTERISTICS       |             | SYMBOL       | TEST CIR-<br>CUIT | PIN<br>NAME | TEST CONDITION           | MIN | TYP. | MAX  | UNIT          |
|-----------------------|-------------|--------------|-------------------|-------------|--------------------------|-----|------|------|---------------|
| Supply Current        | 1 (WAIT)    | $I_{DDWAIT}$ | —                 | —           | $V_{DD1} = 1.5\text{ V}$ | —   | —    | 3.3  | $\mu\text{A}$ |
|                       | 2 (OPERATE) | $I_{DDOP}$   | —                 | —           | $V_{DD1} = 1.2\text{ V}$ | —   | —    | 8.9  | $\mu\text{A}$ |
|                       | 3 (OFF)     | $I_{DDOFF}$  | —                 | —           | $V_{DD1} = 1.5\text{ V}$ | —   | —    | 2.0  | $\mu\text{A}$ |
| Power Off Timer Times |             | T            | —                 | —           | $V_{DD1} = 1.5\text{ V}$ | 429 | 600  | 1001 | s             |

WAVEFORMS FOR DISPLAY



(Note 1) : at  $f\phi = 9\text{ kHz}$

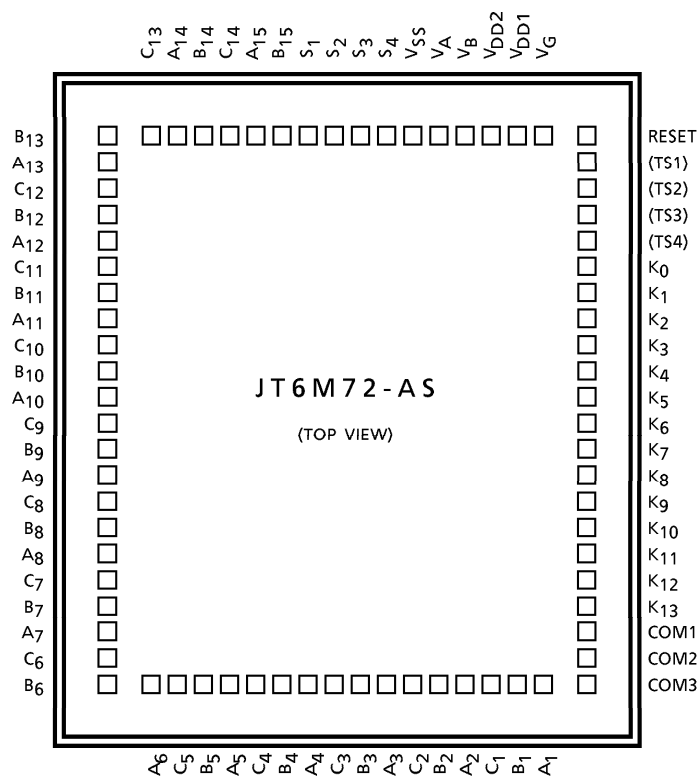
PAD LOCATION TABLE

(μm)

| NAME             | X POINT | Y POINT | NAME            | X POINT | Y POINT |
|------------------|---------|---------|-----------------|---------|---------|
| B <sub>6</sub>   | - 1757  | - 1680  | RESET           | 1757    | 1680    |
| C <sub>6</sub>   | - 1757  | - 1520  | (TS1)           | 1757    | 1520    |
| A <sub>7</sub>   | - 1757  | - 1360  | (TS2)           | 1757    | 1360    |
| B <sub>7</sub>   | - 1757  | - 1200  | (TS3)           | 1757    | 1200    |
| C <sub>7</sub>   | - 1757  | - 1040  | (TS4)           | 1757    | 1040    |
| A <sub>8</sub>   | - 1757  | - 880   | K <sub>0</sub>  | 1757    | 880     |
| B <sub>8</sub>   | - 1757  | - 720   | K <sub>1</sub>  | 1757    | 720     |
| C <sub>8</sub>   | - 1757  | - 560   | K <sub>2</sub>  | 1757    | 560     |
| A <sub>9</sub>   | - 1757  | - 400   | K <sub>3</sub>  | 1757    | 400     |
| B <sub>9</sub>   | - 1757  | - 240   | K <sub>4</sub>  | 1757    | 240     |
| C <sub>9</sub>   | - 1757  | - 80    | K <sub>5</sub>  | 1757    | 80      |
| A <sub>10</sub>  | - 1757  | 80      | K <sub>6</sub>  | 1757    | - 80    |
| B <sub>10</sub>  | - 1757  | 240     | K <sub>7</sub>  | 1757    | - 240   |
| C <sub>10</sub>  | - 1757  | 400     | K <sub>8</sub>  | 1757    | - 400   |
| A <sub>11</sub>  | - 1757  | 560     | K <sub>9</sub>  | 1757    | - 560   |
| B <sub>11</sub>  | - 1757  | 720     | K <sub>10</sub> | 1757    | - 720   |
| C <sub>11</sub>  | - 1757  | 880     | K <sub>11</sub> | 1757    | - 880   |
| A <sub>12</sub>  | - 1757  | 1040    | K <sub>12</sub> | 1757    | - 1040  |
| B <sub>12</sub>  | - 1757  | 1200    | K <sub>13</sub> | 1757    | - 1200  |
| C <sub>12</sub>  | - 1757  | 1360    | COM1            | 1757    | - 1360  |
| A <sub>13</sub>  | - 1757  | 1520    | COM2            | 1757    | - 1520  |
| B <sub>13</sub>  | - 1757  | 1680    | COM3            | 1757    | - 1680  |
| C <sub>13</sub>  | - 1089  | 1753    | A <sub>1</sub>  | 1122    | - 1752  |
| A <sub>14</sub>  | - 929   | 1753    | B <sub>1</sub>  | 962     | - 1752  |
| B <sub>14</sub>  | - 769   | 1753    | C <sub>1</sub>  | 802     | - 1752  |
| C <sub>14</sub>  | - 609   | 1753    | A <sub>2</sub>  | 642     | - 1752  |
| A <sub>15</sub>  | - 449   | 1753    | B <sub>2</sub>  | 482     | - 1752  |
| B <sub>15</sub>  | - 289   | 1753    | C <sub>2</sub>  | 322     | - 1752  |
| S <sub>1</sub>   | - 129   | 1753    | A <sub>3</sub>  | 162     | - 1752  |
| S <sub>2</sub>   | 31      | 1753    | B <sub>3</sub>  | 2       | - 1752  |
| S <sub>3</sub>   | 191     | 1753    | C <sub>3</sub>  | - 158   | - 1752  |
| S <sub>4</sub>   | 351     | 1753    | A <sub>4</sub>  | - 318   | - 1752  |
| V <sub>SS</sub>  | 511     | 1753    | B <sub>4</sub>  | - 478   | - 1752  |
| V <sub>A</sub>   | 671     | 1753    | C <sub>4</sub>  | - 638   | - 1752  |
| V <sub>B</sub>   | 831     | 1753    | A <sub>5</sub>  | - 798   | - 1752  |
| V <sub>DD2</sub> | 991     | 1753    | B <sub>5</sub>  | - 958   | - 1752  |
| V <sub>DD1</sub> | 1151    | 1753    | C <sub>5</sub>  | - 1118  | - 1752  |
| V <sub>G</sub>   | 1388    | 1753    | A <sub>6</sub>  | - 1278  | - 1752  |

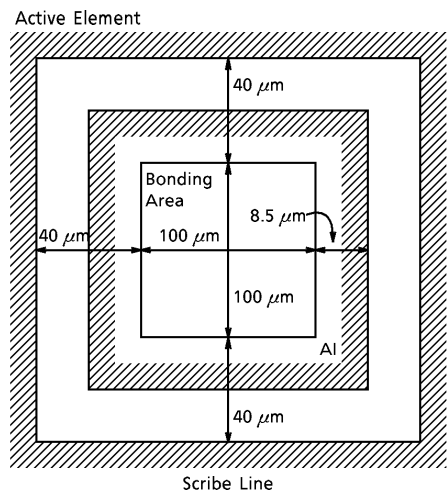
(Note) : ( ) Do not connect.

CHIP LAYOUT



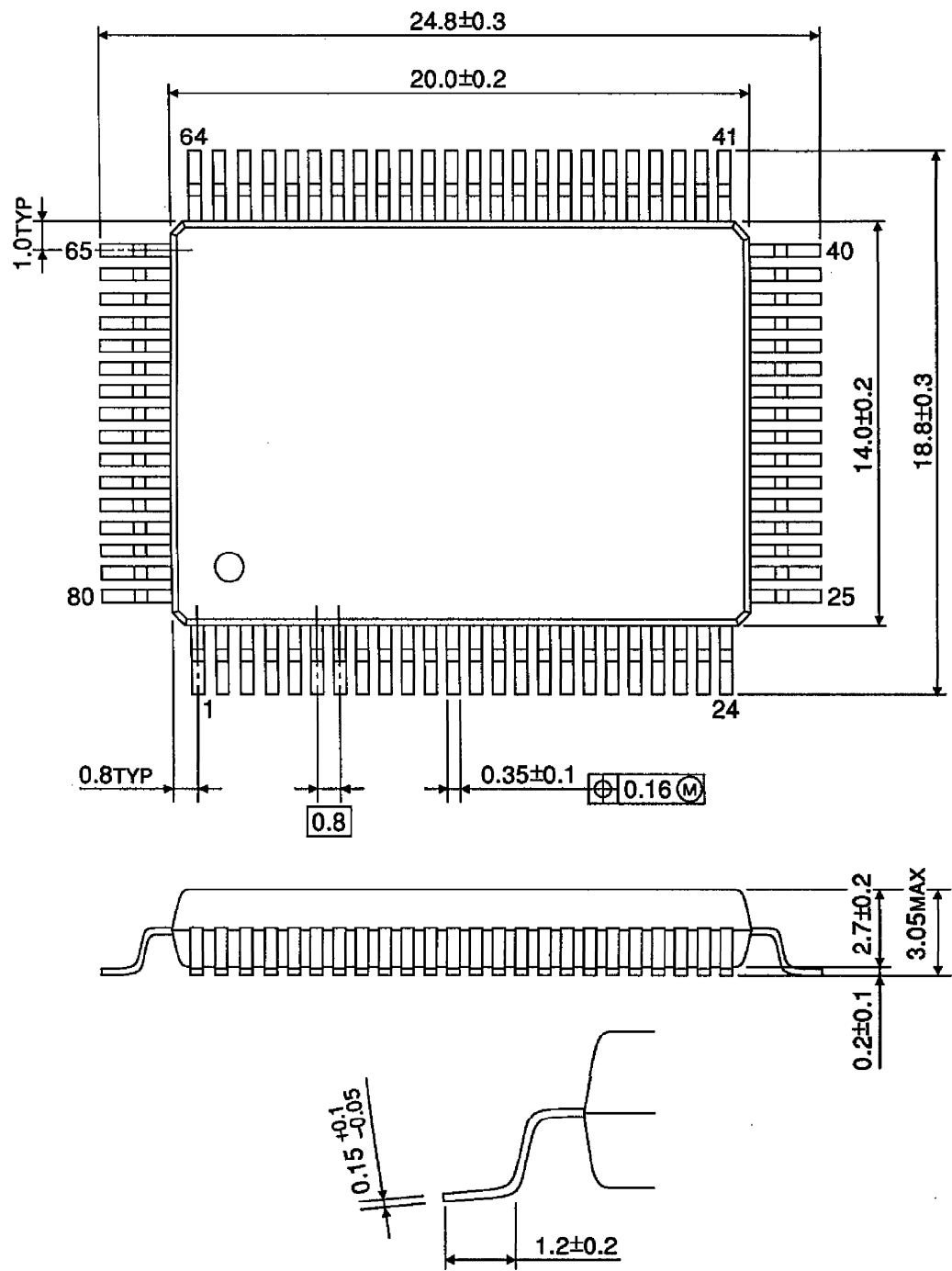
Chip size : 3.79 × 3.84 (mm)  
Chip thickness : 440 ± 30 (μm)  
Substrate : V<sub>SS</sub>

PAD LAYOUT



PACKAGE DIMENSIONS  
QFP80-P-1420-0.80A

Unit : mm



Weight : 1.52 g (Typ.)