

**ROHM封装**

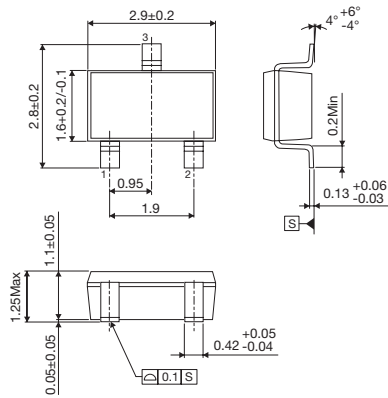
|                          |       |                |       |
|--------------------------|-------|----------------|-------|
| Small封装 .....            | P.112 | SON封装 .....    | P.117 |
| SOP封装 .....              | P.113 | SON特殊封装 .....  | P.117 |
| HSOP封装 .....             | P.113 | QFP封装 .....    | P.117 |
| HTSOP封装 .....            | P.113 | QFN封装 .....    | P.118 |
| SOP特殊封装 .....            | P.114 | BGA封装 .....    | P.119 |
| Non-lead封装 .....         | P.115 | 特殊封装 .....     | P.119 |
| Optical Non-lead封装 ..... | P.116 | WL-CSP封装 ..... | P.120 |
| MMP封装 .....              | P.116 | Power封装 .....  | P.121 |

**Small封装**

(单位: mm)

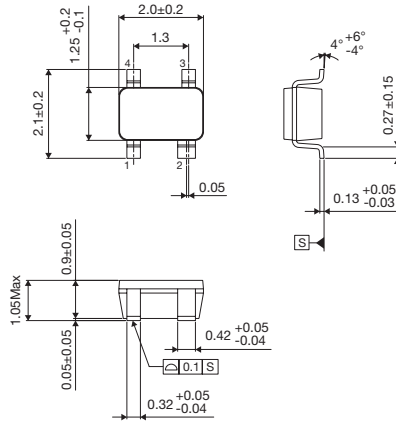
**SOP封装**

**SSOP3**



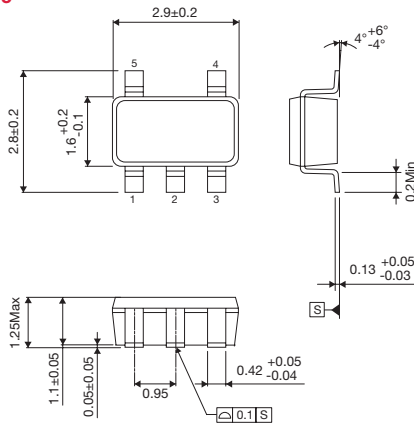
Taping: 3,000pcs

**SOP4**



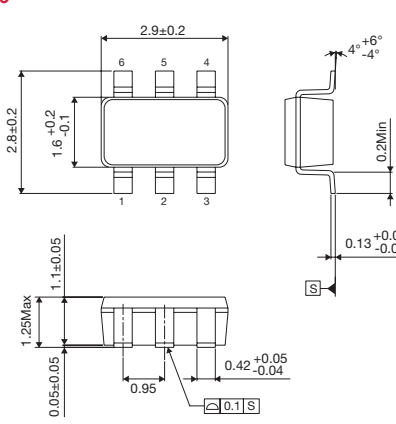
Taping: 3,000pcs

**SSOP5**



Taping: 3,000pcs

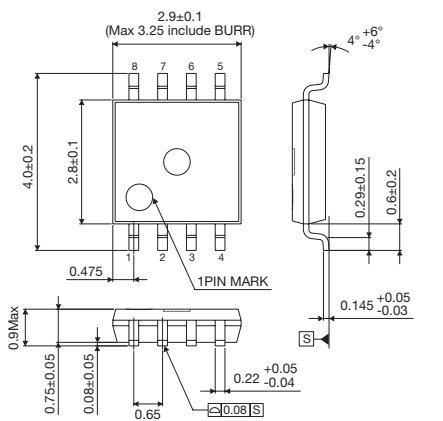
**SSOP6**



Taping: 3,000pcs

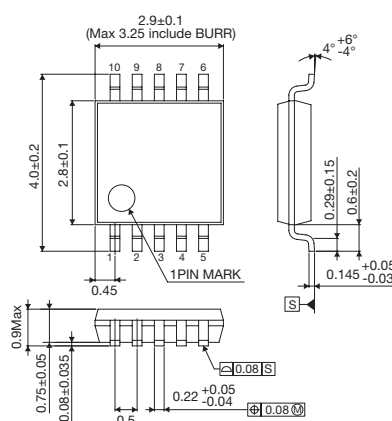
**MSOP封装**

**MSOP8**



Taping: 3,000pcs

**MSOP10**



Taping: 3,000pcs

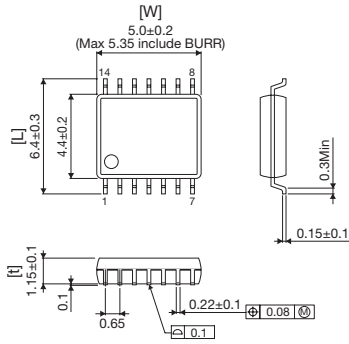
注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

一 C 封装

SOP封装

(单位: mm)

SSOP Package (for SSOP-B14)



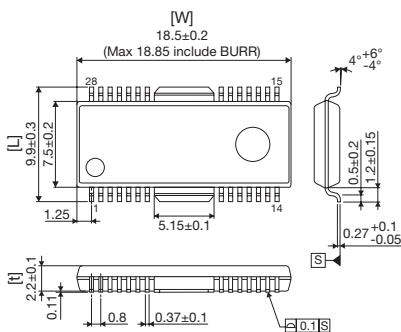
|                                      | Package    | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | Package (pcs) taping |
|--------------------------------------|------------|------------------|-----------------|----------------|--------------------|----------------------|
| SOP Package<br>Pin Pitch: 1.27mm     | SOP8       | 8                | 6.2             | 5.0            | 1.61               | 2,500                |
|                                      | SOP-JW8    |                  | 6.0             | 4.9            | 1.65               | 2,500                |
|                                      | SOP14      | 14               | 6.2             | 8.7            | 1.61               | 2,500                |
|                                      | SOP-J14    |                  | 6.0             | 8.65           | 1.65               | 2,500                |
|                                      | SOP16      | 16               | 6.2             | 10.0           | 1.61               | 2,500                |
|                                      | SOP-J16A   |                  | 6.0             | 9.9            | 1.55               | 2,500                |
|                                      | SOP18      | 18               | 7.8             | 11.2           | 1.91               | 2,000                |
|                                      | SOP20A     | 20               | 10.3            | 12.8           | 2.5                | 1,500                |
|                                      | SOP24      | 24               | 7.8             | 15.0           | 1.91               | 2,000                |
|                                      | SOP28      | 28               | 9.9             | 18.5           | 2.31               | 1,500                |
| SOP-J8                               | 8          | 6.0              | 4.9             | 1.55           | 2,500              |                      |
| SSOP-A Package<br>Pin Pitch: 0.8mm   | SSOP-A16   | 16               | 6.2             | 6.6            | 1.61               | 2,500                |
|                                      | SSOP-A20   | 20               | 7.8             | 8.7            | 1.91               | 2,000                |
|                                      | SSOP-A24   | 24               | 7.8             | 10.0           | 1.9                | 2,000                |
|                                      | SSOP-A32   | 32               | 7.8             | 13.6           | 1.91               | 2,000                |
| SSOP-B Package<br>Pin Pitch: 0.65mm  | SSOP-B8    | 8                | 6.4             | 3.0            | 1.25               | 2,500                |
|                                      | SSOP-B10W  | 10               | 10.2            | 3.5            | 1.9                | 1,500                |
|                                      | SSOP-B14   | 14               | 6.4             | 5.0            |                    | 2,500                |
|                                      | SSOP-B16   | 16               | 6.4             | 5.0            | 1.25               | 2,500                |
|                                      | SSOP-B20   | 20               | 6.4             | 6.5            |                    | 2,500                |
|                                      | SSOP-B20W  |                  | 8.1             | 6.5            | 1.81               | 2,000                |
|                                      | SSOP-B24   | 24               | 7.6             | 7.8            |                    | 2,000                |
|                                      | SSOP-B28   | 28               | 7.6             | 10.0           | 1.25               | 2,000                |
|                                      | SSOP-B28W  |                  | 10.4            | 9.2            | 2.4                | 1,500                |
|                                      | SSOP-B40   | 40               | 7.8             | 13.6           | 1.9                | 2,000                |
| TSSOP-B Package<br>Pin Pitch: 0.65mm | TSSOP-B8   | 8                | 6.4             | 3.0            | 1.2                | 3,000                |
|                                      | TSSOP-B8J  |                  | 4.9             | 3.0            | 1.1                | 2,500                |
|                                      | TSSOP-B14J | 14               | 6.4             | 5.0            | 1.2                | 2,500                |
| TSSOP-C Package<br>Pin Pitch: 0.5mm  | TSSOP-C48V | 48               | 8.1             | 12.5           | 1.0                | 2,000                |

注: 尺寸详图请确认罗姆官网。

HSOP封装(双侧带散热片)

(单位: mm)

HSOP Package (for HSOP-M28)



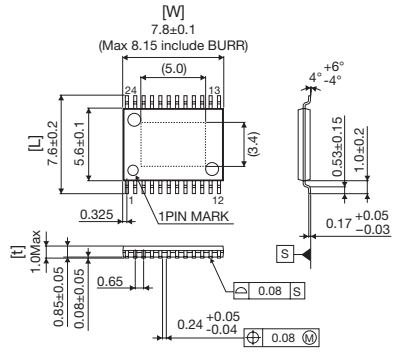
|                                    | Package  | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | Package (pcs) taping |
|------------------------------------|----------|------------------|-----------------|----------------|--------------------|----------------------|
| HSOP Package<br>Pin Pitch: 1.27mm  | HSOP20   | 20               | 7.8             | 14.9           | 2.1                | 2,000                |
| HSOP Package<br>Pin Pitch: 0.8mm   | HSOP25   | 25               | 7.8             | 13.6           | 2.01               | 2,000                |
| HSOP-M Package<br>Pin Pitch: 0.8mm | HSOP-M28 | 28               | 9.9             | 18.5           | 2.31               | 1,500                |
|                                    | HSOP-M36 | 36               | 9.9             | 18.5           | 2.4                | 1,500                |

注: 尺寸详图请确认罗姆官网。

HTSOP封装(背面带散热片)

(单位: mm)

HTSSOP Package (for HTSSOP-B24)



|                                       | Package     | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | back heat sink (mm) | Package (pcs) taping |
|---------------------------------------|-------------|------------------|-----------------|----------------|--------------------|---------------------|----------------------|
| HTSOP Package<br>Pin Pitch: 1.27mm    | HTSOP-J8    | 8                | 6.0             | 4.9            | 1.0                | 2.4x3.2             | 2,500                |
|                                       | HTSOP-J8ES  | 8                | 6.0             | 4.9            |                    | 1.8x2.2             | 2,500                |
| HTSSOP-A Package<br>Pin Pitch: 0.8mm  | HTSSOP-A44  | 44               | 9.5             | 18.5           | 1.0                | 5.0x6.0             | 1,500                |
|                                       | HTSSOP-A44R |                  | 9.5             | 18.5           |                    | 5.0x6.0 (surface)   | 1,500                |
| HTSSOP-B Package<br>Pin Pitch: 0.65mm | HTSSOP-B16  | 16               | 6.4             | 5.0            | 1.0                | 2.4x3.0             | 2,500                |
|                                       | HTSSOP-B20  | 20               | 6.4             | 6.5            |                    | 2.4x4.0             | 2,500                |
|                                       | HTSSOP-B24  | 24               | 7.6             | 7.8            |                    | 3.4x5.0             | 2,000                |
|                                       | HTSSOP-B28  | 28               | 6.4             | 9.7            |                    | 2.9x5.5             | 2,500                |
|                                       | HTSSOP-B30  | 30               | 7.6             | 10.0           |                    | 3.7x5.8             | 2,000                |
|                                       | HTSSOP-B40  | 40               | 7.8             | 13.6           |                    | 3.4x8.4             | 2,000                |
|                                       | HTSSOP-B54  | 54               | 9.5             | 18.5           |                    | 5.0x6.0             | 1,500                |
| HTSSOP-C Package<br>Pin Pitch: 0.5mm  | HTSSOP-C48  | 48               | 8.1             | 12.5           | 1.0                | 4.2x5.0             | 2,000                |
|                                       | HTSSOP-C48R | 48               | 8.1             | 12.5           |                    | 4.2x5.0 (surface)   | 2,000                |
|                                       | HTSSOP-C64  | 64               | 8.1             | 17.2           | 1.1                | 3.05x4.45           | 2,000                |
| HSSOP-C Package<br>Pin Pitch: 0.5mm   | HSSOP-C16   | 16               | 6.0             | 4.9            | 1.7                | about 2.5x4.12      | 2,500                |

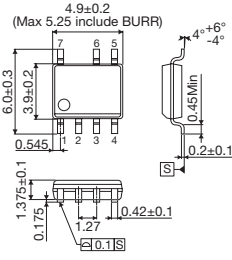
注: 尺寸详图请确认罗姆官网。

注: LAPIS Technology产品的封装请参照“LAPIS Technology LSI封装”。

## SOP特殊封装

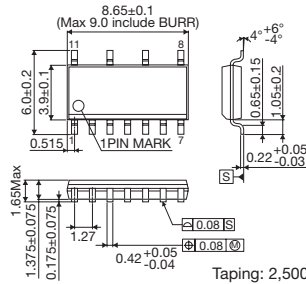
(单位: mm)

### SOP-J7S



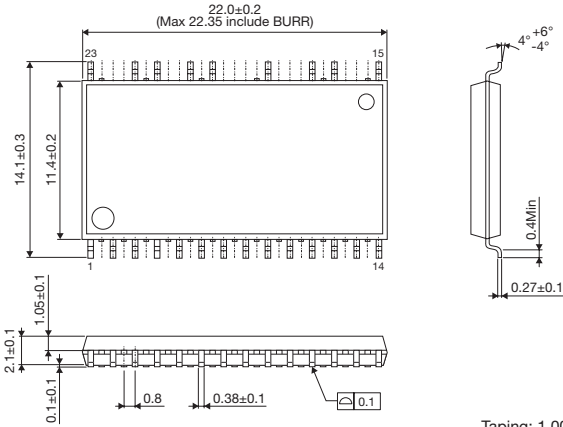
Taping: 2,500pcs

### SOP-J11



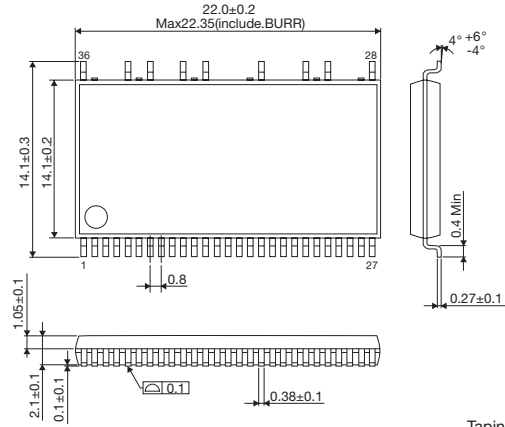
Taping: 2,500pcs

### SSOP-A54\_23



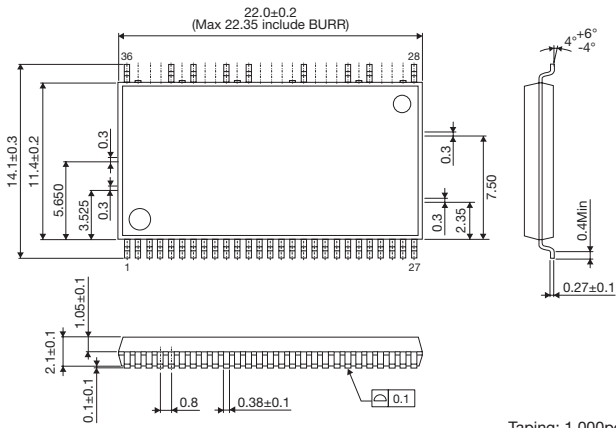
Taping: 1,000pcs

### SSOP-A54\_36



Taping: 1,000pcs

### SSOP-A54\_36A



Taping: 1,000pcs

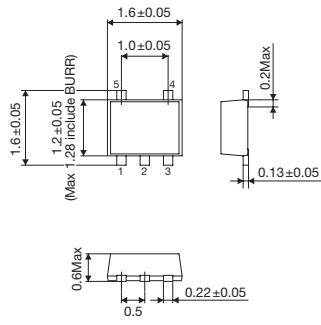
注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

Non-lead封装

(单位: mm)

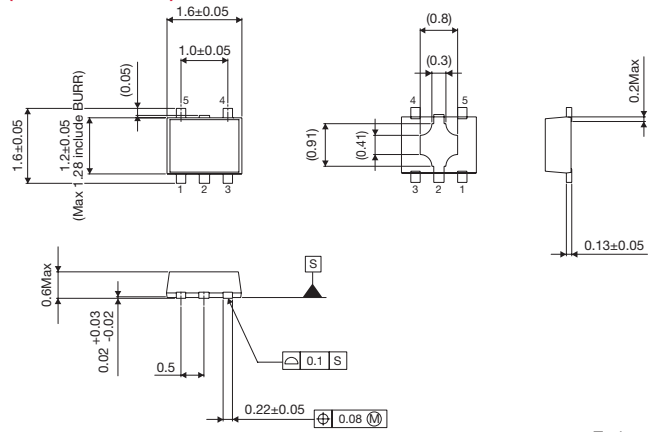
VSOE封装

VSOE5



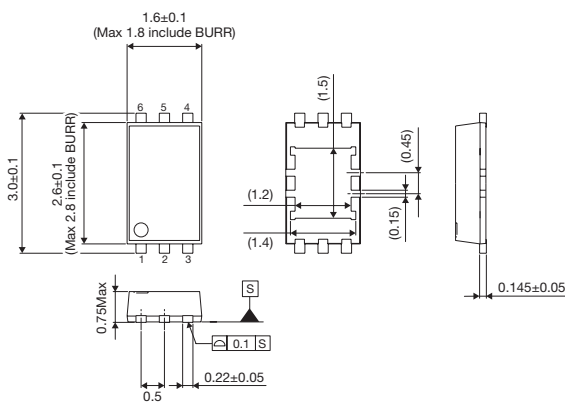
Taping: 3,000pcs

HVSOE5 (With back heat sink)



Taping: 3,000pcs

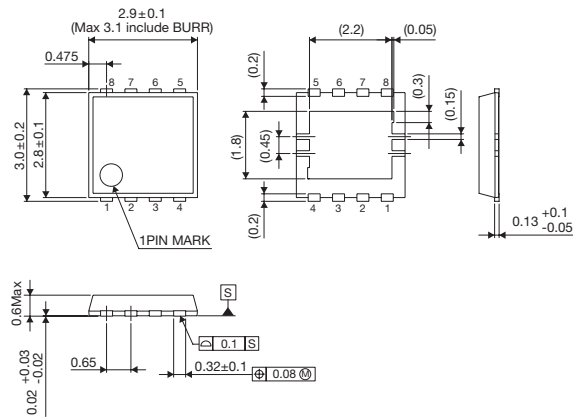
HVSOE6 (With back heat sink)



Taping: 3,000pcs

HSOE封装(背面带散热片)

HSOE8



Taping: 3,000pcs

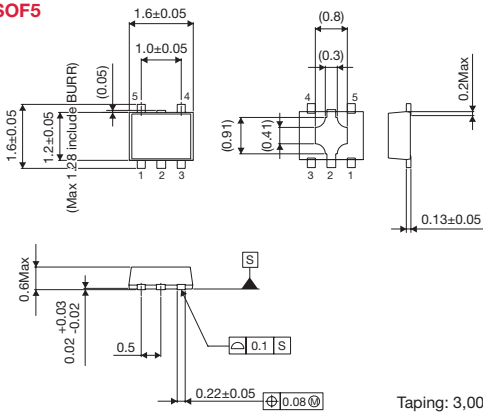
注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

**Optical Non-lead封装(背面带散热片)**

(单位: mm)

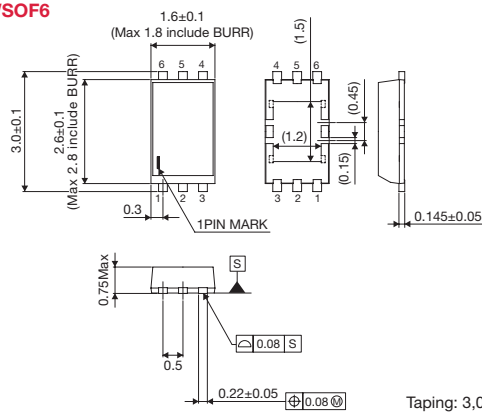
**WSOF封装**

**WSOF5**



Taping: 3,000pcs

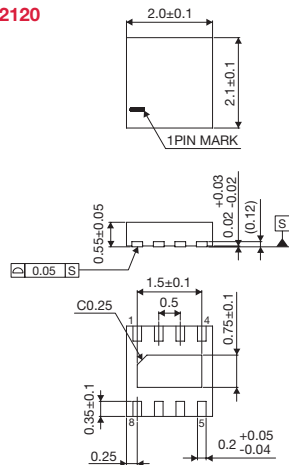
**WSOF6**



Taping: 3,000pcs

**WSOF封装**

**WSON008X2120**



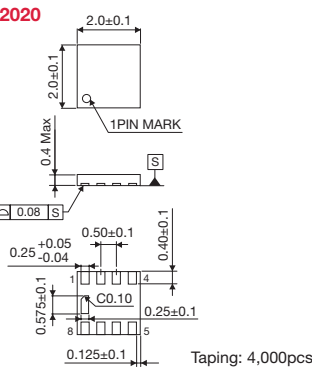
Taping: 4,000pcs

**MMP封装**

(单位: mm)

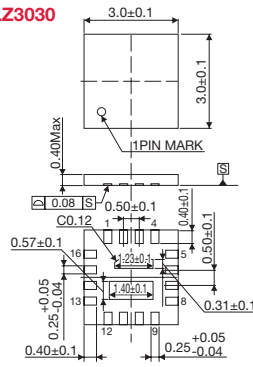
**VMMP封装**

**VMMP08LZ2020**



Taping: 4,000pcs

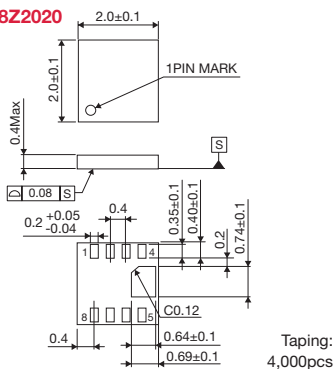
**VMMP16LZ3030**



Taping: 2,500pcs

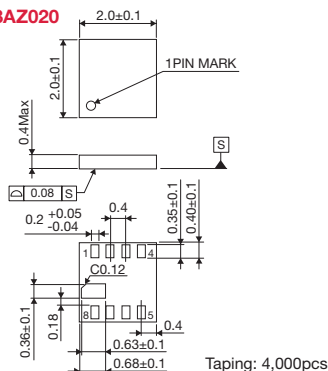
**UMMP封装**

**UMMP008Z2020**



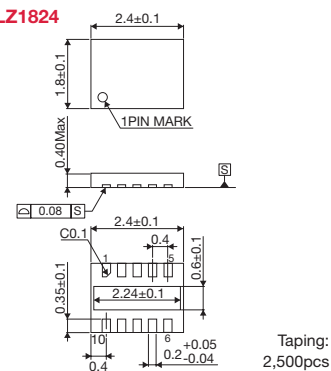
Taping: 4,000pcs

**UMMP008AZ2020**



Taping: 4,000pcs

**UMMP10LZ1824**



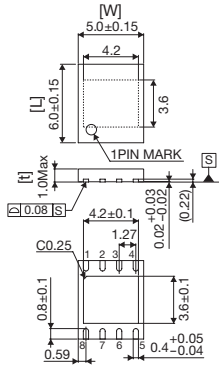
Taping: 2,500pcs

注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

SON封装(背面带散热片)

(单位: mm)

SON Package (for SON008V5060)



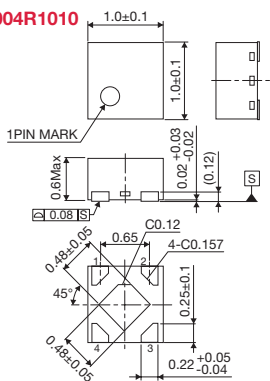
|  | Package             | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | back heat sink (mm) | Package (pcs) taping |       |
|--|---------------------|------------------|-----------------|----------------|--------------------|---------------------|----------------------|-------|
| <b>SON Package</b><br>Pin Pitch: 1.27mm  | <b>SON008V5060</b>  | 8                | 6.0             | 5.0            | 1.0                | 3.6x4.2             | 2,000                |       |
| <b>SSON Package</b><br>Pin Pitch: 0.65mm | <b>SSON004X1010</b> | 4                | 1.0             | 1.0            | 0.6                | 0.48x0.48           | 5,000                |       |
|  | <b>SSON004X1216</b> |                  | 1.6             | 1.2            |                    | 0.8x0.75            | 5,000                |       |
| <b>USON Package</b><br>Pin Pitch: 0.4mm  | <b>USON014X3020</b> | 14               | 2.0             | 3.0            | 0.6                | 0.8x2.5             | 4,000                |       |
|  | <b>USON016X3315</b> | 16               | 1.5             | 3.3            |                    | 0.6x2.9             | 4,000                |       |
| <b>VSON Package</b><br>Pin Pitch: 0.5mm  | <b>VSON008V2030</b> | 8                | 3.0             | 2.0            | 1.0                | 1.4x1.5             | 3,000                |       |
|  | <b>VSON008X2020</b> |                  | 2.0             | 2.0            |                    | 0.6                 | 1.4x1.5              | 4,000 |
|  | <b>VSON008X2030</b> |                  | 3.0             | 2.0            |                    | 1.4x1.5             | 4,000                |       |
|  | <b>VSON010V3030</b> | 10               | 3.0             | 3.0            | 1.0                | 1.2x2.0             | 3,000                |       |
|  | <b>VSON010X3020</b> |                  | 2.0             | 3.0            |                    | 0.6                 | 0.64x2.0             | 4,000 |
|  | <b>VSON010X3030</b> |                  | 3.0             | 3.0            |                    | 1.2x2.0             | 4,000                |       |
| <b>VSON10FV3030</b>                      |                     |                  | 3.0             | 3.0            | 1.0                | 1.2x2.0             | 3,000                |       |

注: 尺寸详图请确认罗姆官网。

SON特殊封装(背面带散热片)

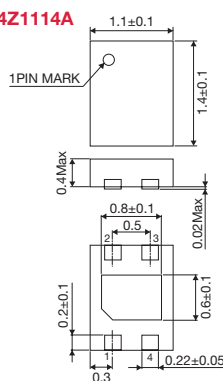
(单位: mm)

SSON004R1010



Taping: 5,000pcs

VSON04Z1114A

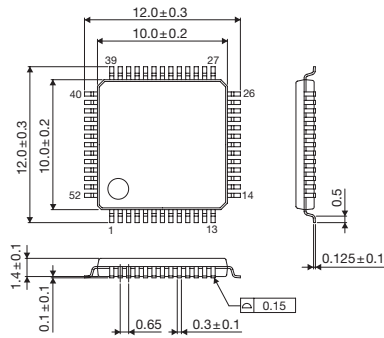


Taping: 5,000pcs

QFP封装

(单位: mm)

SQFP Package (for SQFP-T52)



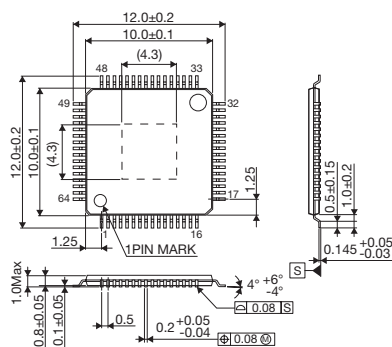
|  | Package          | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | Package (pcs) |        |
|--|------------------|------------------|-----------------|----------------|--------------------|---------------|--------|
|  |                  |                  |                 |                |                    | Tray          | Taping |
| <b>SQFP-T Package</b><br>Pin Pitch: 0.65mm | <b>SQFP-T52</b>  | 52               | 12.0            | 12.0           | 1.5                | 1,000         | 1,000  |
|  | <b>SQFP-T64</b>  | 64               | 14.0            | 14.0           |                    | 1,000         | —      |
|  | <b>SQFP-T80C</b> | 80               | 16.0            | 16.0           |                    | 500           | —      |
| <b>TQFP Package</b><br>Pin Pitch: 0.5mm    | <b>TQFP48V</b>   | 48               | 9.0             | 9.0            | 1.2                | 1,000         | 1,500  |
|  | <b>TQFP64V</b>   | 64               | 12.0            | 12.0           | 1.1                | 1,000         | 1,000  |
|  | <b>TQFP100V</b>  | 100              | 16.0            | 16.0           | 1.2                | 500           | 500    |
| <b>VQFP Package</b><br>Pin Pitch: 0.5mm    | <b>VQFP48C</b>   | 48               | 9.0             | 9.0            | 1.6                | 1,000         | 1,500  |
|  | <b>VQFP64</b>    | 64               | 12.0            | 12.0           |                    | 1,000         | 1,000  |
|  | <b>VQFP80</b>    | 80               | 14.0            | 14.0           |                    | 1,000         | 1,000  |
|  | <b>VQFP100</b>   | 100              | 16.0            | 16.0           |                    | 500           | 500    |

注: 尺寸详图请确认罗姆官网。

QFP封装(背面带散热片)

(单位: mm)

HTQFP Package (for HTQFP64AV)



|  | Package           | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | back heat sink (mm) | Package (pcs) |        |
|--|-------------------|------------------|-----------------|----------------|--------------------|---------------------|---------------|--------|
|  |                   |                  |                 |                |                    |                     | Tray          | Taping |
| <b>HTQFP Package</b><br>Pin Pitch: 0.5mm | <b>HTQFP48V</b>   | 48               | 9.0             | 9.0            | 1.0                | 4.4x4.4             | —             | 1,500  |
|  | <b>HTQFP64AV</b>  | 64               | 12.0            | 12.0           |                    | 4.3x4.3             | —             | 1,000  |
|  | <b>HTQFP64BV</b>  |                  | 12.0            | 12.0           |                    | 6.5x6.5             | —             | 1,000  |
| <b>HTQFP Package</b><br>Pin Pitch: 0.4mm | <b>HTQFP128UA</b> | 128              | 16.0            | 16.0           | 1.2                | 6.6x6.6             | —             | 900    |
| <b>HQFP Package</b><br>Pin Pitch: 0.5mm  | <b>HQFP144VM</b>  | 144              | 22.0            | 22.0           | 1.6                | 6.0x6.0             | —             | 60     |

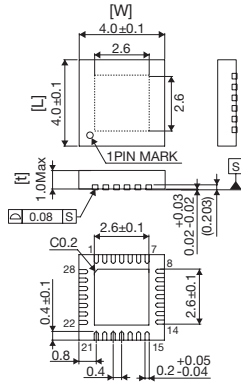
注: 尺寸详图请确认罗姆官网。

注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

**QFN封装(背面带散热片)**

(单位: mm)

**UQFN Package (for UQFN28V4040A)**



|  | Package             | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | back heat sink (mm) | Package (pcs) taping |         |
|--|---------------------|------------------|-----------------|----------------|--------------------|---------------------|----------------------|---------|
| <b>SQFN Package</b><br>Pin Pitch: 0.65mm | <b>SQFN016V4040</b> | 16               | 4.0             | 4.0            | 1.0                | 2.1x2.1             | 2,500                |         |
| <b>UQFN Package</b><br>Pin Pitch: 0.4mm  | <b>UQFN28V4040A</b> | 28               | 4.0             | 4.0            | 1.0                | 2.6x2.6             | 2,500                |         |
|  | <b>UQFN036V5050</b> | 36               | 5.0             | 5.0            |                    | 2.7x2.7             | 2,500                |         |
|  | <b>UQFN040V5050</b> | 40               | 5.0             | 5.0            |                    | 3.3x3.3             | 2,500                |         |
|  | <b>UQFN056V7070</b> | 56               | 7.0             | 7.0            |                    | 4.7x4.7             | 1,500                |         |
|  | <b>UQFN56BV7070</b> |                  | 7.0             | 7.0            |                    | 4.0x4.0             | 1,500                |         |
|  | <b>UQFN68CV8080</b> | 68               | 8.0             | 8.0            |                    | 4.3x4.3             | 1,000                |         |
| <b>UQFN88MV0100</b>                      | 88                  | 10.0             | 10.0            | 7.8x7.8        | 1,000              |                     |                      |         |
| <b>VQFN Package</b><br>Pin Pitch: 0.5mm  | <b>VQFN11X3535A</b> | 11               | 3.5             | 3.5            | 0.6                | —                   | 2,500                |         |
|  | <b>VQFN016V3030</b> | 16               | 3.0             | 3.0            | 1.0                | 1.4x1.4             | 3,000                |         |
|  | <b>VQFN16FV3030</b> |                  | 3.0             | 3.0            |                    | 1.4x1.4             | 3,000                |         |
|  | <b>VQFN16KV3030</b> |                  | 3.0             | 3.0            |                    | 1.4x1.4             | 3,000                |         |
|  | <b>VQFN16Z3030A</b> |                  | 3.0             | 3.0            |                    | 0.4                 | 1.8x1.8              | 4,000   |
|  | <b>VQFN20</b>       | 20               | 4.2             | 4.2            | 0.95               | —                   | 2,500                |         |
|  | <b>VQFN20FV3535</b> |                  | 3.5             | 3.5            | 1.0                | 2.05x2.05           | 2,500                |         |
|  | <b>VQFN20FV4040</b> |                  | 4.0             | 4.0            |                    | 2.1x2.1             | 2,500                |         |
|  | <b>VQFN20PV3535</b> |                  | 3.5             | 3.5            |                    | 2.05x2.05           | 2,500                |         |
|  | <b>VQFN20QV3535</b> |                  | 3.5             | 3.5            |                    | 2.05x2.05           | 2,500                |         |
|  | <b>VQFN020V4040</b> |                  | 4.0             | 4.0            |                    | 2.1x2.1             | 2,500                |         |
|  | <b>VQFN24FV4040</b> | 24               | 4.0             | 4.0            |                    | 1.0                 | 2.4x2.4              | 2,500   |
|  | <b>VQFN24SV4040</b> |                  | 4.0             | 4.0            | 2.4x2.4            |                     | 2,500                |         |
|  | <b>VQFN024V4040</b> |                  | 4.0             | 4.0            | 2.4x2.4            |                     | 2,500                |         |
|  | <b>VQFN28FV5050</b> |                  | 28              | 5.0            | 5.0                |                     | 2.7x2.7              | 2,500   |
|  | <b>VQFN28SV5050</b> | 5.0              |                 | 5.0            | 2.7x2.7            | 2,500               |                      |         |
|  | <b>VQFN028V5050</b> | 5.0              |                 | 5.0            | 2.7x2.7            | 2,500               |                      |         |
|  | <b>VQFN32FBV050</b> | 32               |                 | 5.0            | 5.0                | 1.0                 | 3.4x3.4              | 2,500   |
|  | <b>VQFN32FAV050</b> |                  | 5.0             | 5.0            | 3.4x3.4            |                     | 2,500                |         |
|  | <b>VQFN32SV5050</b> |                  | 5.0             | 5.0            | 3.4x3.4            |                     | 2,500                |         |
|  | <b>VQFN032V5050</b> |                  | 5.0             | 5.0            | 3.4x3.4            |                     | 2,500                |         |
|  | <b>VQFN36</b>       | 36               | 6.2             | 6.2            | 0.95               | —                   | 2,500                |         |
|  | <b>VQFN036V6060</b> |                  | 6.0             | 6.0            | 1.0                | 3.6x3.6             | 2,000                |         |
|  | <b>VQFN40W6060A</b> | 40               | 6.0             | 6.0            | 0.8                | 4.5x4.5             | 2,000                |         |
|  | <b>VQFN040V6060</b> |                  | 6.0             | 6.0            | 1.0                | 3.7x3.7             | 2,000                |         |
|  | <b>VQFN40FV6060</b> |                  | 6.0             | 6.0            |                    | 4.4x4.4             | 2,000                |         |
|  | <b>VQFN48V7070A</b> |                  | 48              | 7.0            |                    | 7.0                 | 0.9                  | 5.3x5.3 |
|  | <b>VQFN48MCV070</b> | 7.0              |                 | 7.0            |                    | 1.0                 | 5.6x5.6              | 1,500   |
|  | <b>VQFN48FV7070</b> | 7.0              |                 | 7.0            | 3.2x3.2            |                     | 1,500                |         |
|  | <b>VQFN048V7070</b> | 7.0              |                 | 7.0            | 4.7x4.7            |                     | 1,500                |         |
|  | <b>VQFN56AV8080</b> | 56               | 8.0             | 8.0            | 1.0                |                     | 3.4x3.4              | 1,000   |
|  | <b>VQFN56FV8080</b> |                  | 8.0             | 8.0            |                    | 5.5x5.5             | 1,000                |         |
| <b>WQFN Package</b><br>Pin Pitch: 0.5mm  | <b>WQFN12X2520A</b> | 12               | 2.5             | 2.0            | 0.5                | —                   | 4,000                |         |

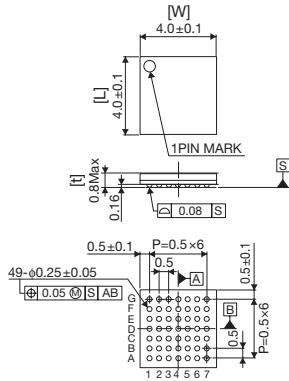
注: 尺寸详图请确认罗姆官网。

IC封装

BGA封装

(单位: mm)

VBGA Package (for VBGA049W040A)



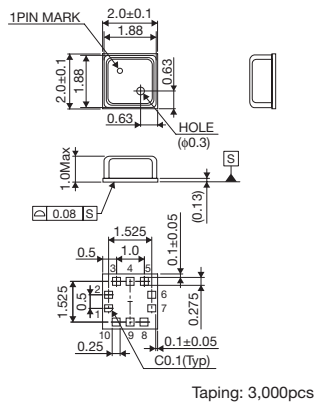
|                                   | Package      | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | Package (pcs) taping |
|-----------------------------------|--------------|------------------|-----------------|----------------|--------------------|----------------------|
| SBGA Package<br>Pin Pitch: 0.65mm | SBGA072T070A | 72               | 7.0             | 7.0            | 1.2                | 1,500                |
|                                   | VBGA048W040  | 48               | 4.0             | 4.0            | 0.9                | 2,500                |
| VBGA Package<br>Pin Pitch: 0.5mm  | VBGA049W040A | 49               | 4.0             | 4.0            | 0.8                | 2,500                |
|                                   | VBGA064T050A | 64               | 5.0             | 5.0            | 1.2                | 2,500                |
|                                   | VBGA099W060  | 99               | 6.0             | 6.0            | 0.9                | 2,000                |

注: 尺寸详图请确认罗姆官网。

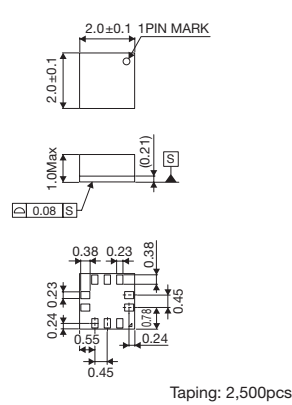
特殊封装

(单位: mm)

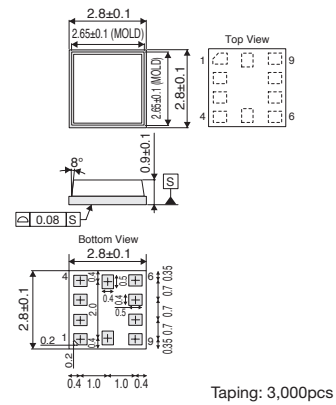
CLGA10V020A



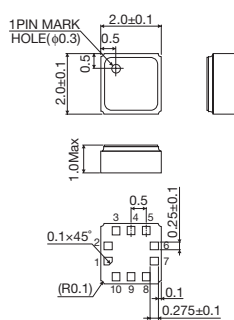
MLGA010V020A



WLGA010V28



RLGA10V020T/  
RLGA10VG020T



注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。



**WL-CSP封装**

(单位: mm)

**VCSP <引脚间距: 0.5mm>**

| VCSP85H   | VCSP60N   | VCSP50L   | VCSP35L  |
|---|---|---|--|
|   |   |   |  |
| 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs | 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs | 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs | 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs<br>Embossed carrier tape: 3,000pcs |

**UCSP <引脚间距: 0.4mm>**

| UCSP75M  | UCSP55M   | UCSP50L   | UCSP35L  |
|--|---|---|--|
|  |   |   |  |
| 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs                                    | 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs | 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs | 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs<br>Embossed carrier tape: 3,000pcs |
| UCSP30L  | UCSP25L   | UCSP16X   |  |
|  |   |   |  |
| 2.8mm square size less than: 3,000pcs<br>2.81mm square size or more: 2,500pcs<br>Embossed carrier tape: 3,000pcs | Embossed carrier tape: 3,000pcs   | Embossed carrier tape: 3,000pcs   |  |

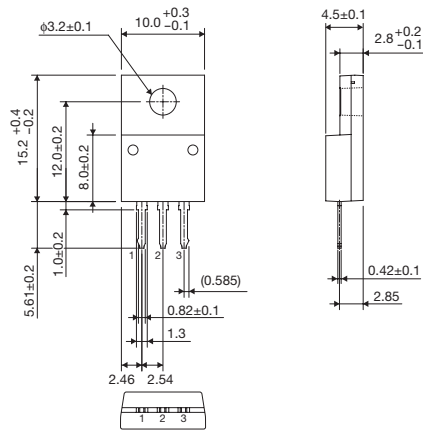
注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

Power封装

(单位: mm)

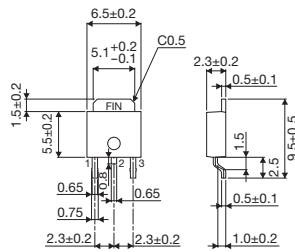
Power-3pin

TO220CP-3



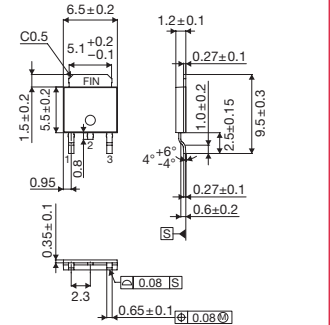
Taping: 500pcs

TO252-3



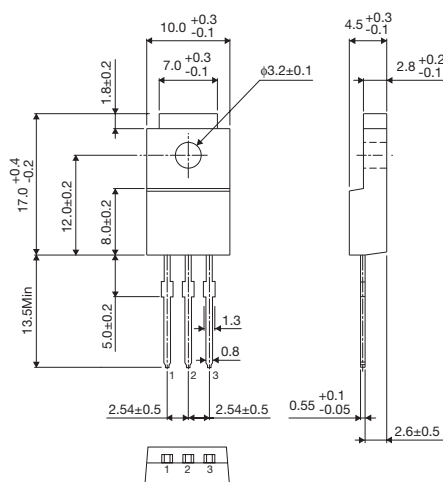
Taping: 2,000pcs

TO252S-3



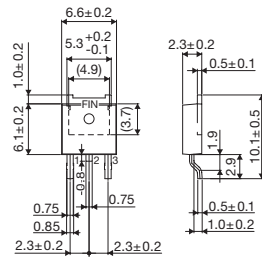
Taping: 2,000pcs

TO220FP-3



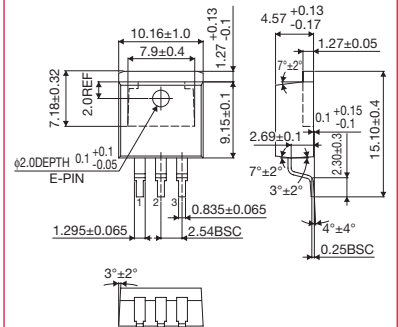
Container tube: 500pcs

TO252-J3



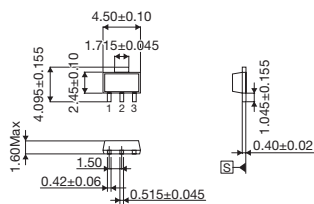
Taping: 2,000pcs

TO263-3



Taping: 500pcs

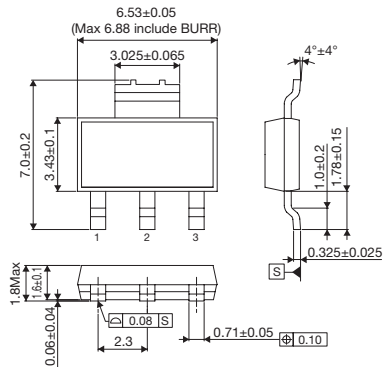
SOT89-3K



Taping: 1,000pcs

Power-4pin

SOT223-4

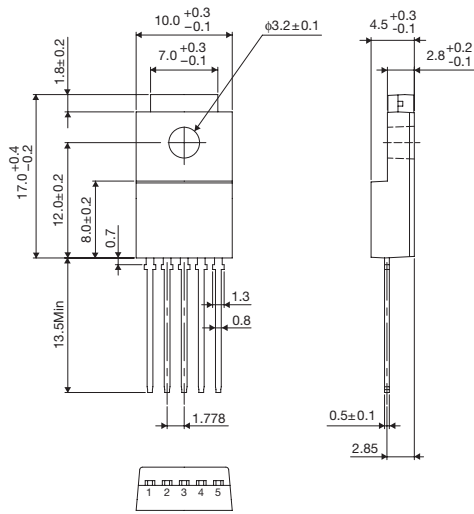


Taping: 2,000pcs

注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

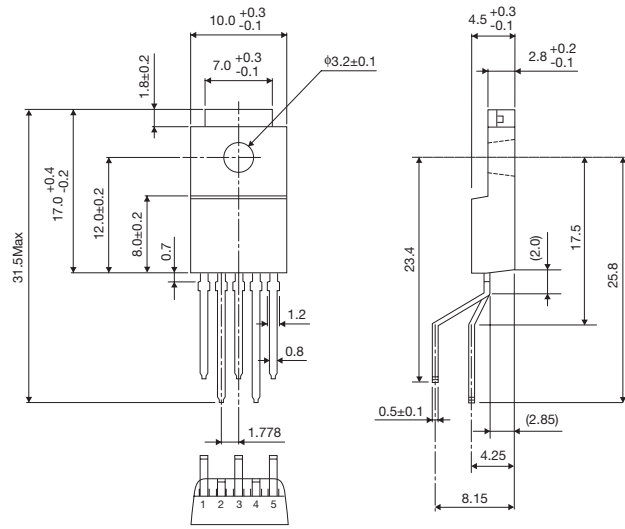
Power-5pin

**TO220FP-5**



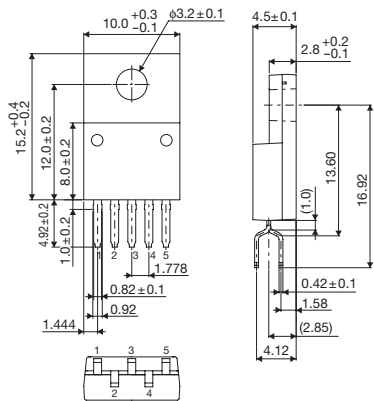
Tube: 500pcs

**TO220FP-5 (V5)**



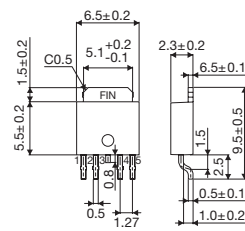
Tube: 500pcs

**TO220CP-V5**



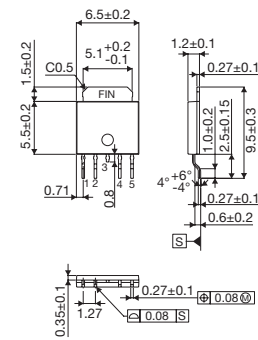
Taping: 500pcs

**TO252-5**



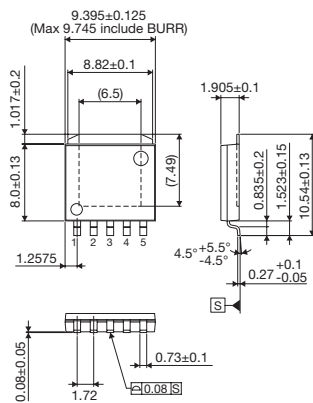
Taping: 2,000pcs

**TO252S-5**



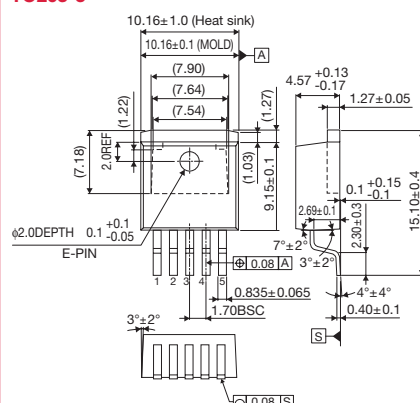
Taping: 2,000pcs

**HRP5**



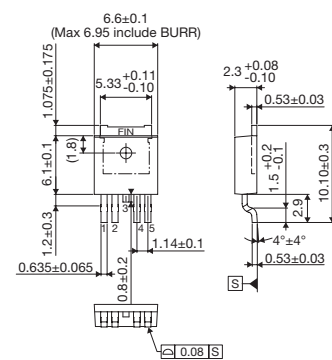
Taping: 2,000pcs

**TO263-5**



Taping: 500pcs

**TO252-J5**



Taping: 2,000pcs

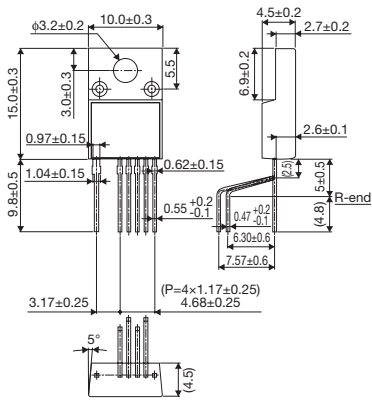
注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

**Power封装**

(单位: mm)

**Power-6pin**

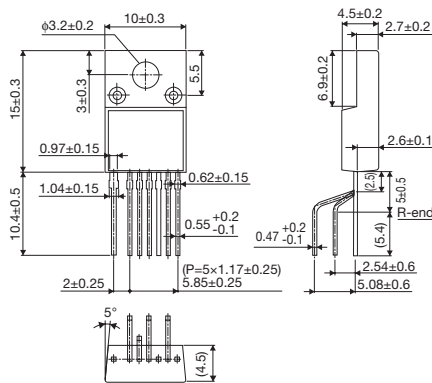
**TO220-6M**



Container tube: 238pcs

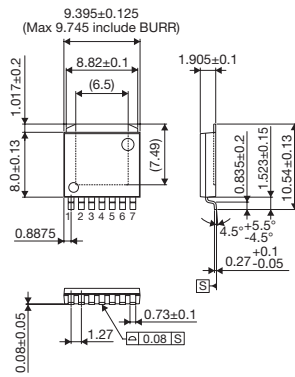
**Power-7pin**

**TO220-7M**



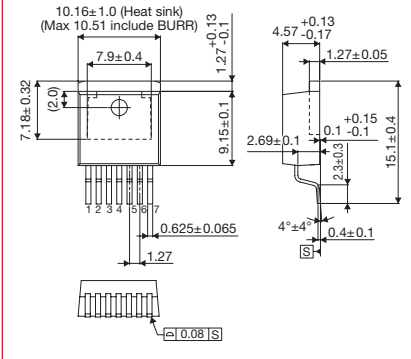
Container tube: 238pcs

**HRP7**



Taping: 2,000pcs

**TO263-7**



Taping: 2,000pcs

注: Lapis Technology产品的封装请参照“Lapis Technology LSI封装”。

## LAPIS Technology 封装

品名构成说明 ..... P.124  
 SOP封装 ..... P.124  
 QFP封装 ..... P.125  
 QFN封装 ..... P.126

WSON封装 ..... P.128  
 BGA封装 ..... P.128  
 WL-CSP封装 ..... P.129

刊载各封装的代表性外形图。详细内容请咨询销售人员。

## 品名构成说明

半导体集成电路产品的名称是以“M”开头，并按照下述标准进行命名。



**元件功能**  
按照功能划分如下：

|    |                |
|----|----------------|
| MD | DRAM           |
| MR | P2ROM™, OTPROM |
| MS | 图像用存储器         |
| ML | 逻辑             |
| MK | 模块、芯片组         |
| MT | 驱动器            |

**元件代码**  
由数字和英文字母组成，表示元件的固有功能。

**特征记号**  
在表示现有产品的改良情况、强调规格与现有产品标准规格不同或者表示设计规格时附加的记号。

**封装记号**  
用2位数表示封装的种类和引脚弯曲形状。

**选项分类记号**  
用于区分选项记号和封装记号的记号。

**派生代码**  
表示DRAM产品的速度级数或逻辑产品的派生代码。

**选项代码**  
对有选项的产品附加用于识别其规格的记号。

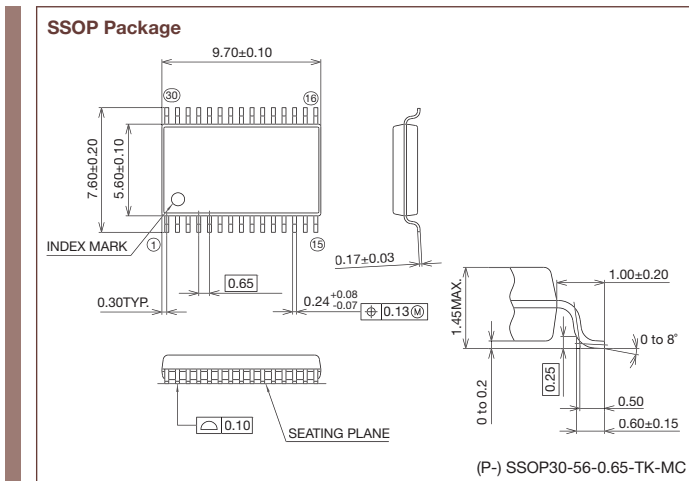
以往产品的标注方式如下所示。  
· 不标注封装形状。



|   |                |   |       |
|---|----------------|---|-------|
| A | Analog         | L | 双极性逻辑 |
| C | Bi-CMOS, 多芯片产品 | M | MOS   |

## SOP封装

(单位：mm)



|   | Package                    | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | TRAY (pcs) | T&R (pcs) |
|---|----------------------------|------------------|-----------------|----------------|--------------------|------------|-----------|
| <b>SSOP Package</b><br>Pin Pitch: 1mm     | SSOP32-430-1.00-XXX        | 32               | 12.0            | 15.95          | 2.50               | 1,280      | 1,000     |
| <b>SSOP Package</b><br>Pin Pitch: 0.65mm  | (P-) SSOP16-0225-0.65-XXX  | 16               | 6.4             | 5.0            | 1.15               | 4,760      | 2,500     |
|   | (P-) SSOP30-56-0.65-XXX    | 30               | 7.6             | 9.7            | 1.45               | 2,000      | 2,000     |
| <b>TSSOP Package</b><br>Pin Pitch: 0.65mm | (P-) TSSOP20-0225-0.65-XXX | 20               | 6.4             | 6.5            | 1.10               | 4,160      | 2,000     |
| <b>VSSOP Package</b><br>Pin Pitch: 0.65mm | P-VSSOP8-0150-0.65-XXX     | 8                | 4.0             | 2.9            | 0.90               | -          | 3,000     |

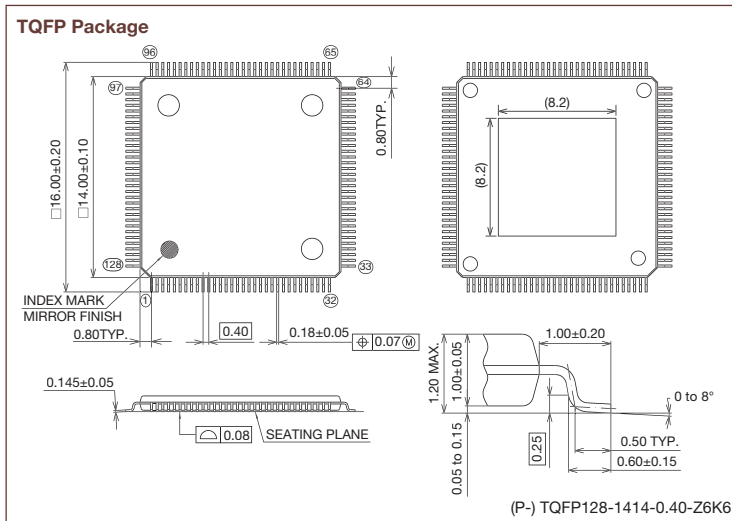
注1: 尺寸详图请确认LAPIS Technology官网。

注2: 封装的后缀“-XXX”中加入选项代码。根据不同的制造网点及内部结构等分配代码。详细内容请咨询销售人员。

刊载各封装的代表性外形图。详细内容请咨询销售人员。

QFP封装

(单位: mm)



QFP

|                                  | Package                   | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | TRAY (pcs) | T&R (pcs) |
|----------------------------------|---------------------------|------------------|-----------------|----------------|--------------------|------------|-----------|
| QFP Package<br>Pin Pitch: 0.8mm  | QFP44-P-910-0.80-XXX      | 44               | 13.5            | 14.5           | 2.25               | 1,440      | 1,000     |
|                                  | (P-) QFP64-1414-0.80-XXX  | 64               | 17.2            | 17.2           | 2.80               | 840        | —         |
|                                  | (P-) QFP80-1420-0.80-XXX  | 80               | 19.0            | 25.0           | 2.50               | 600        | —         |
| QFP Package<br>Pin Pitch: 0.65mm | (P-) QFP56-910-0.65-XXX   | 56               | 13.5            | 14.5           | 2.25               | 1,400      | 1,000     |
|                                  | (P-) QFP80-1414-0.65-XXX  | 80               | 17.2            | 17.2           | 3.05               | 840        | —         |
|                                  | (P-) QFP100-1420-0.65-XXX | 100              | 19.0            | 25.0           | 2.50               | 600        | —         |

注1: 尺寸详图请确认LAPIS Technology官网。  
注2: 封装的后缀“-XXX”中加入选项代码。根据不同的制造网点及内部结构等分配代码。详细内容请咨询销售人员。

LQFP

|                                   | Package                    | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | TRAY (pcs) | T&R (pcs) |
|-----------------------------------|----------------------------|------------------|-----------------|----------------|--------------------|------------|-----------|
| LQFP Package<br>Pin Pitch: 0.8mm  | (P-) LQFP32-0707-0.80-XXX  | 80               | 9.0             | 9.0            | 1.600              | 2,500      | 1,000     |
| LQFP Package<br>Pin Pitch: 0.50mm | (P-) LQFP144-2020-0.50-XXX | 50               | 22.0            | 22.0           | 1.600              | 600        | —         |

注1: 尺寸详图请确认LAPIS Technology官网。  
注2: 封装的后缀“-XXX”中加入选项代码。根据不同的制造网点及内部结构等分配代码。详细内容请咨询销售人员。

TQFP

|                                   | Package                   | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | TRAY (pcs) | T&R (pcs) |
|-----------------------------------|---------------------------|------------------|-----------------|----------------|--------------------|------------|-----------|
| TQFP Package<br>Pin Pitch: 0.80mm | (P-) TQFP32-0707-0.80-XXX | 32               | 9.0             | 9.0            | 1.20               | 2,500      | 1,000     |
|                                   | (P-) TQFP44-1010-0.80-XXX | 44               | 12.0            | 12.0           | 1.20               | 1,600      | 1,000     |
| TQFP Package<br>Pin Pitch: 0.65mm | (P-) TQFP52-1010-0.65-XXX | 52               | 12.0            | 12.0           | 1.20               | 1,600      | 1,000     |
| TQFP Package<br>Pin Pitch: 0.5mm  | (P-) TQFP48-0707-0.50-XXX | 48               | 9.0             | 9.0            | 1.20               | 2,500      | 1,000     |
|                                   | (P-) TQFP64-1010-0.50-XXX | 64               | 12.0            | 12.0           | 1.20               | 1,600      | 1,000     |

注1: 尺寸详图请确认LAPIS Technology官网。  
注2: 封装的后缀“-XXX”中加入选项代码。根据不同的制造网点及内部结构等分配代码。详细内容请咨询销售人员。

刊载各封装的代表性外形图。详细内容请咨询销售人员。

## QFP封装

(单位: mm)

### TQFP

|                                   | Package                    | Pin Number (pin) | Length [L] (mm) | Width [W] (mm) | Thickness [t] (mm) | TRAY (pcs) | T&R (pcs) |
|-----------------------------------|----------------------------|------------------|-----------------|----------------|--------------------|------------|-----------|
| TQFP Package<br>Pin Pitch: 0.5mm  | (P-) TQFP80-1212-0.50-XXX  | 80               | 14.0            | 14.0           | 1.20               | 1,190      | —         |
|                                   | (P-) TQFP100-1414-0.50-XXX | 100              | 16.0            | 16.0           | 1.20               | 900        | —         |
| TQFP Package<br>Pin Pitch: 0.40mm | (P-) TQFP80-1010-0.40-XXX  | 80               | 12.0            | 12.0           | 1.20               | 1,600      | —         |
|                                   | (P-) TQFP120-1414-0.40-XXX | 120              | 16.0            | 16.0           | 1.20               | 900        | —         |
|                                   | (P-) TQFP128-1414-0.40-XXX | 128              | 16.0            | 16.0           | 1.20               | 900        | —         |

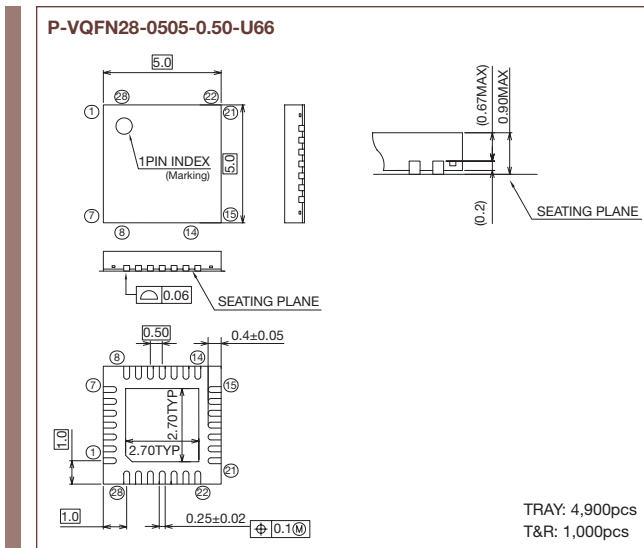
注1: 尺寸详图请确认LAPIS Technology官网。

注2: 封装的后缀“XXX”中加入选项代码。根据不同的制造网点及内部结构等分配代码。详细内容请咨询销售人员。

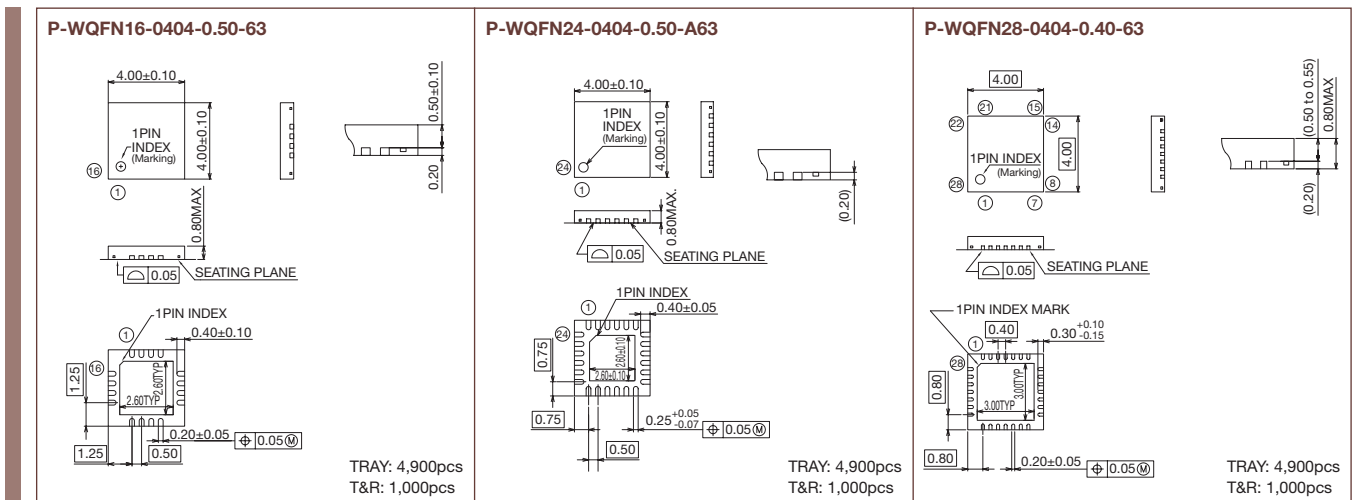
## QFN封装

(单位: mm)

### VQFN



### WQFN



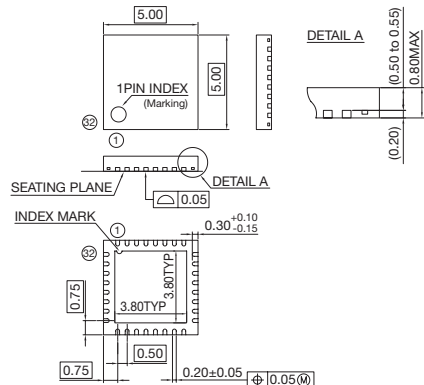
刊载各封装的代表性外形图。详细内容请咨询销售人员。

QFN封装

(单位: mm)

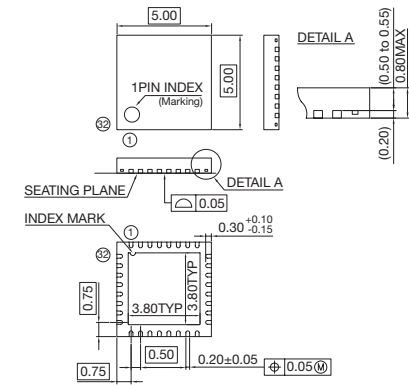
WQFN

P-WQFN32-0505-0.50-A63



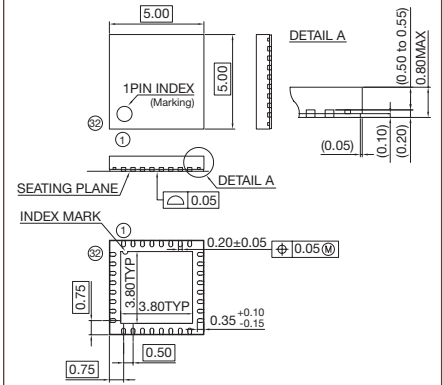
TRAY: 4,030pcs  
T&R: 1,000pcs

P-WQFN32-0505-0.50-A63-MC



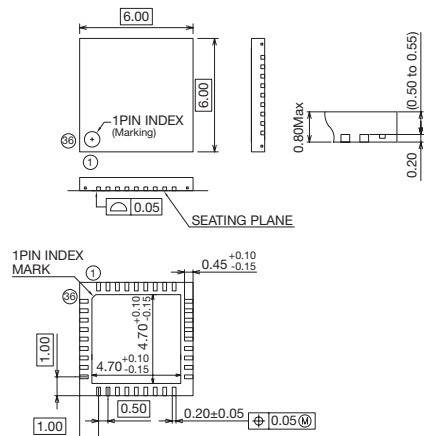
TRAY: 403pcs  
T&R: 1,000pcs

P-WQFN32-0505-0.50-W66



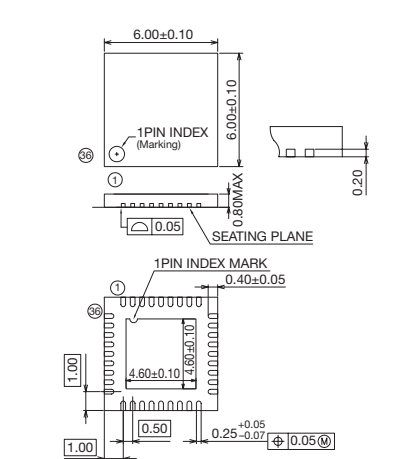
TRAY: 4,030pcs  
T&R: 1,000pcs

WQFN36-0606-0.50-A63



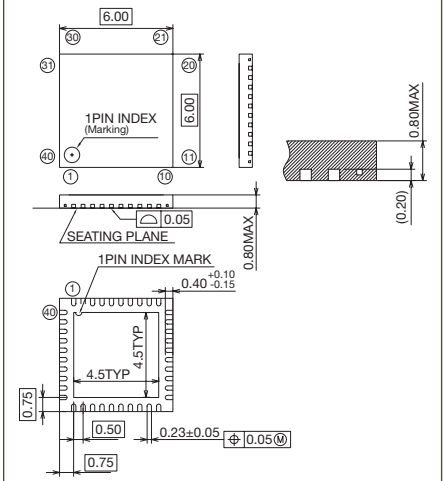
TRAY: 4,900pcs  
T&R: 2,000pcs

P-WQFN36-0606-0.50-T63



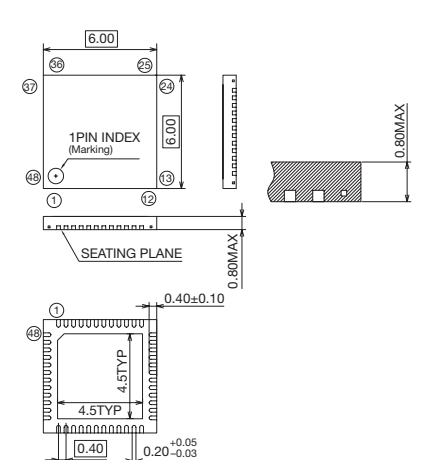
TRAY: 490pcs  
T&R: 2,000pcs

P-WQFN40-0606-0.50-63



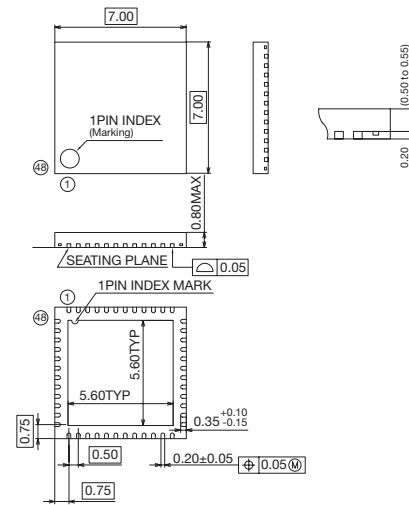
TRAY: 4,900pcs  
T&R: 2,500pcs

P-WQFN48-0606-0.40-T63-MC



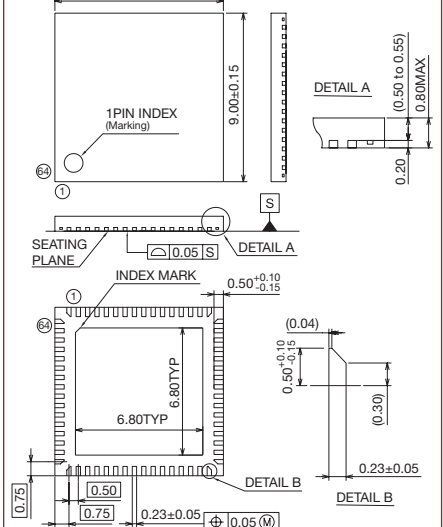
TRAY: —  
T&R: 3,000pcs

P-WQFN48-0707-0.50-63



TRAY: 2,500pcs  
T&R: 2,000pcs

P-WQFN64-0909-0.50-63



TRAY: 2,600pcs  
T&R: 3,000pcs



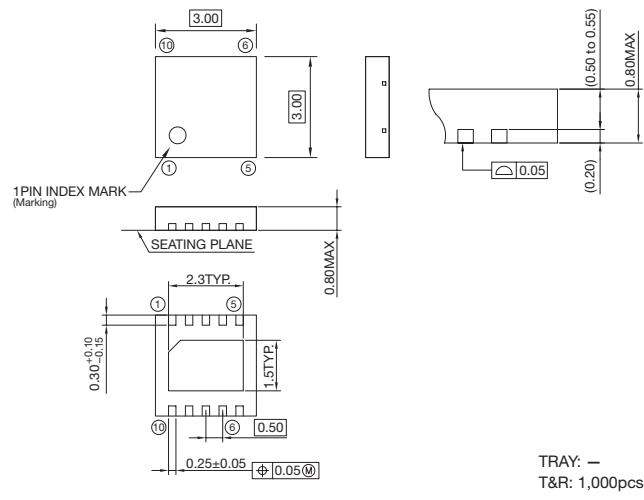
刊载各封装的代表性外形图。详细内容请咨询销售人员。

## WSON封装

(单位: mm)

### WSON

P-WSON10-0303-0.50-63

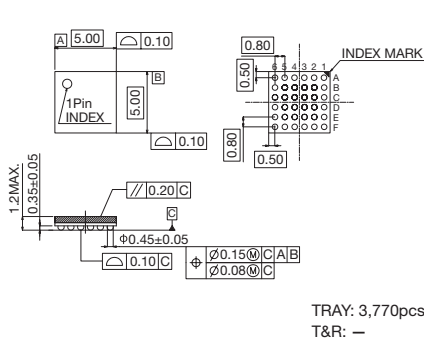


## BGA封装

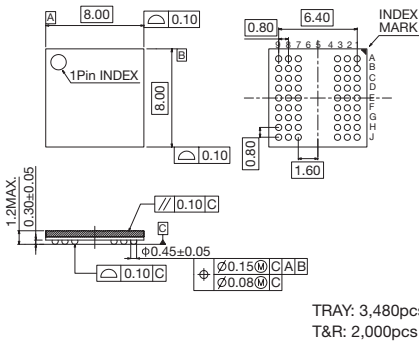
(单位: mm)

### TFBGA

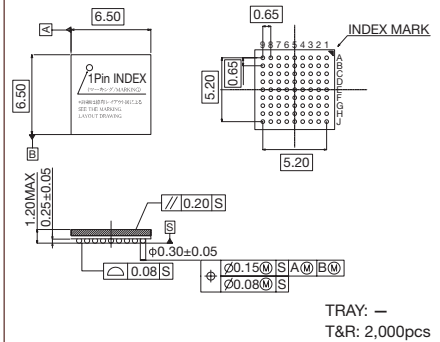
P-TFBGA36-0505-0.80-9



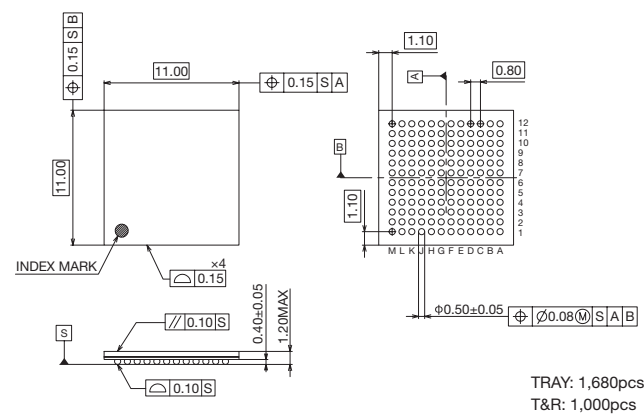
P-TFBGA54-0808-0.80-9



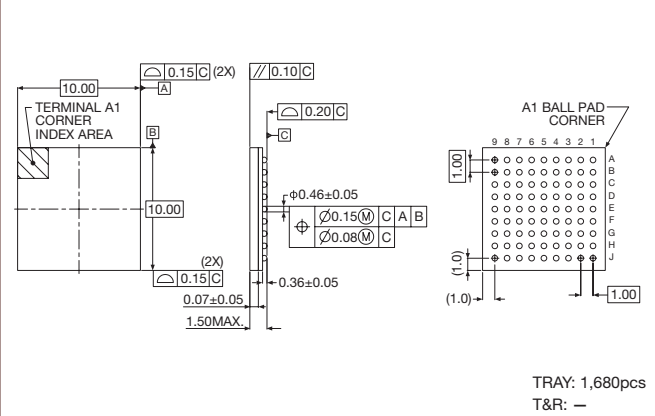
P-TFBGA81-6.5×6.5-0.65-9-MC



P-TFBGA144-1111-0.80-1



P-LBGA81-1010-1.00-1-MC



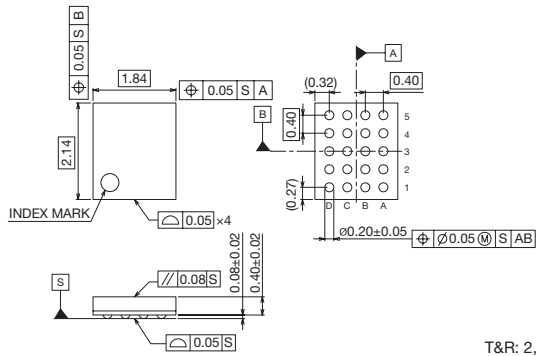
刊载各封装的代表性外形图。详细内容请咨询销售人员。

WL-CSP封装

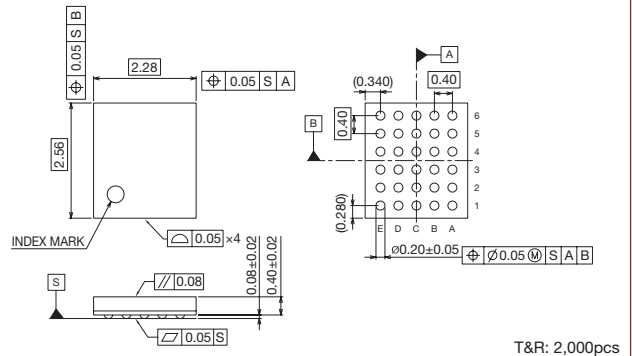
(单位: mm)

WCSP

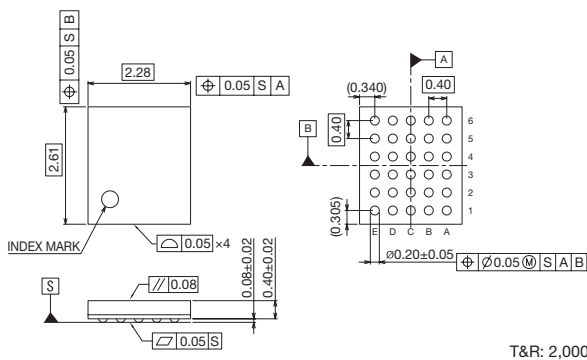
S-UFLGA20-1.84×2.14-0.40-W



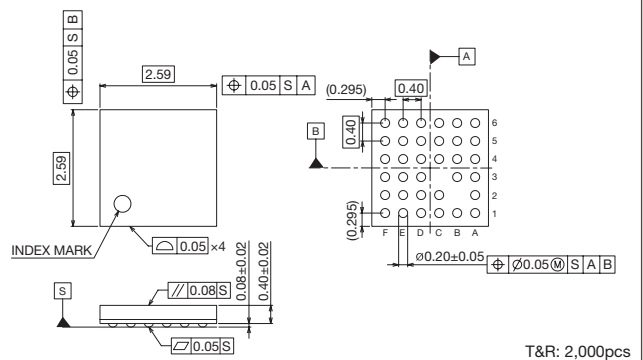
S-UFLGA30-2.28×2.56-0.40-W



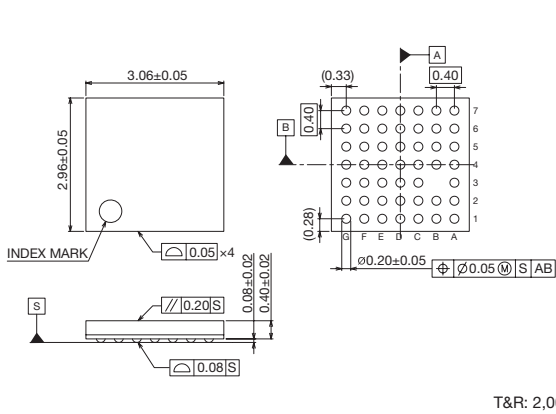
S-UFLGA30-2.28×2.61-0.40-W



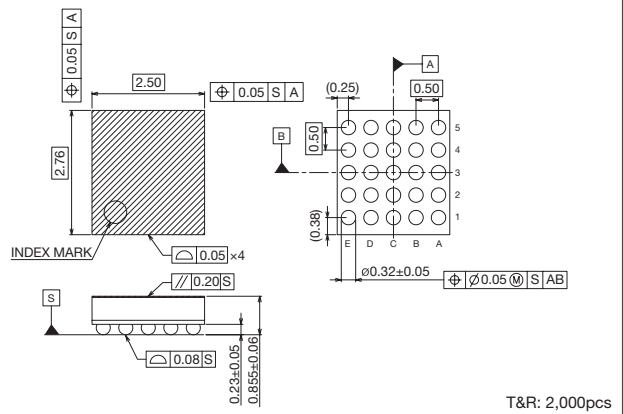
S-UFLGA34-2.59×2.59-0.40-W



S-UFLGA48-3.06×2.96-0.40-W



S-VFBGA25-2.76×2.50-0.50-W



IC封装