

DATE: 2015-4-9 (YY/MM/DD)

Customer : \_\_\_\_\_

## APPROVAL SHEET

PRODUCT: AC ADAPTOR(RoHS Compliant)

MODEL: APT312-0524QC

PART NO. ST-0298

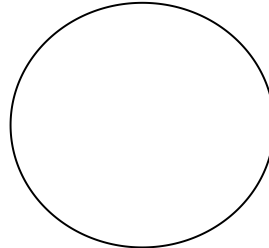
V : A1

Receiver's stamp or signature

PLEASE APPROVE & RETURN BEFORE 2015-4-23  
OR WE WOULD REGARD IT BEEN CONFIRMED.

| RESPONSIBLE | APPROVED | ISSUED              |
|-------------|----------|---------------------|
|             |          | <i>Zhang Guizhi</i> |

ISSUES STAMP



### Revised History

| NO. | Revised Date | Description | Approved | Issued |
|-----|--------------|-------------|----------|--------|
|     |              |             |          |        |
|     |              |             |          |        |
|     |              |             |          |        |
|     |              |             |          |        |



Anthin Power Supply Co.,Ltd. (China)

TEL:+86-755-8980-7888

FAX:+86-755-8980-1111

<http://www.Anthin.cn>

[info@anthin.cn](mailto:info@anthin.cn)

Anthin Japan Co.,Ltd. (Japan)

TEL:+81-45-730-5250

FAX:+81-45-730-5251

<http://www.Anthin.co.jp>

[info@anthin.co.jp](mailto:info@anthin.co.jp)

|                                                                                                                                                                                                                                                                               |             |                               |           |         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------|-----------|---------|
| Anthin                                                                                                                                                                                                                                                                        | DESCRIPTION | SWITCHING POWER<br>AC ADAPTER | SHEET NO. | 1 OF 4  |
|                                                                                                                                                                                                                                                                               |             |                               | VER:      | A1      |
|                                                                                                                                                                                                                                                                               | MODEL NO.   | APT312-0524QC                 | PART NO.  | ST-0298 |
| <div>1.INPUT REQUIREMENT</div> <div>2.OUTPUT SPECIFICATION</div> <div>3.MECHANICAL</div> <div>4.RELIABILITY</div> <div>5.ENVIRONMENT</div> <div>6.OUTLOOKING</div> <div>7.SAFETY</div> <div>8.QC CHECK</div> <div>9.DIMENSION</div> <div>10.LABEL</div> <div>11.PACKING</div> |             |                               |           |         |

|               |                    |                        |                  |                |
|---------------|--------------------|------------------------|------------------|----------------|
| <b>Anthin</b> | <b>DESCRIPTION</b> | <b>SWITCHING POWER</b> | <b>SHEET NO.</b> | <b>2 OF 4</b>  |
|               |                    | <b>AC ADAPTER</b>      | <b>VER:</b>      | <b>A1</b>      |
|               | <b>MODEL NO.</b>   | <b>APT312-0524QC</b>   | <b>PART NO.</b>  | <b>ST-0298</b> |

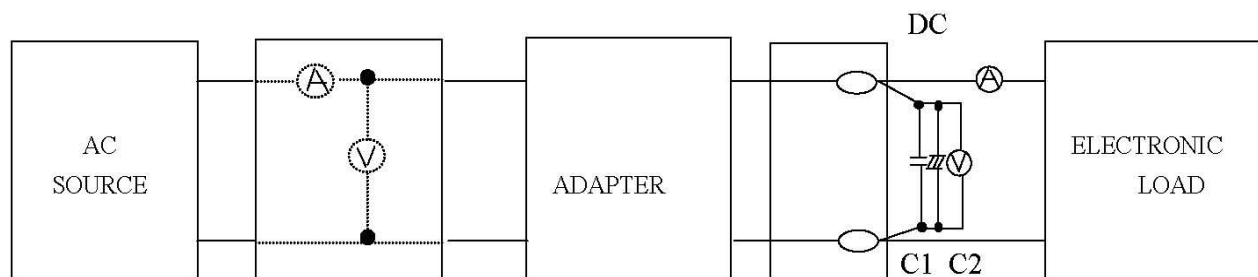
## 1.INPUT REQUIREMENT

| ITEM                    | SPECIFICATION                                      | MIN    | TYP.          | MAX    |
|-------------------------|----------------------------------------------------|--------|---------------|--------|
| NORMAL AC INPUT VOLTAGE | SINGLE PHASE                                       | 100Vac | 110Vac/220Vac | 240Vac |
| AC INPUT VOLTAGE RANGE  | SINGLE PHASE                                       | 90Vac  | 110Vac/220Vac | 264Vac |
| AC INPUT FREQUENCY      | SINGLE PHASE                                       | 47Hz   | 50/60Hz       | 63Hz   |
| AC INPUT CURRENT        | TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD.        |        |               | 300mA  |
| AC INRUSH CURRENT       | TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD , 25°C. |        |               | 30A    |
| EFFICIENCY              | TYPICAL INPUT VOLTAGE& OUTPUT AT FULL LOAD         | 65%    |               |        |

## 2.OUTPUT SPECIFICATION

| ITEM                     | SPECIFICATION                                                 | MIN   | TYP.  | MAX   |
|--------------------------|---------------------------------------------------------------|-------|-------|-------|
| NORMAL DC OUTPUT VOLTAGE |                                                               |       | 5Vdc  |       |
| DC OUTPUT VOLTAGE RANGE  | TYPICAL OUTPUT VOLTAGE ±5%                                    | 4.75V |       | 5.25V |
| LOAD CURRENT RANGE       |                                                               | 0A    |       | 2.4A  |
| PEAK LOAD CURRENT        | TIME<60S                                                      |       |       | 2.7A  |
| NORMAL DC OUTPUT VOLTAGE |                                                               |       | 9Vdc  |       |
| DC OUTPUT VOLTAGE RANGE  | TYPICAL OUTPUT VOLTAGE ±5%                                    | 8.55V |       | 9.45V |
| LOAD CURRENT RANGE       |                                                               | 0A    |       | 1.6A  |
| PEAK LOAD CURRENT        | TIME<60S                                                      |       |       | 1.9A  |
| NORMAL DC OUTPUT VOLTAGE |                                                               |       | 12Vdc |       |
| DC OUTPUT VOLTAGE RANGE  | TYPICAL OUTPUT VOLTAGE ±5%                                    | 11.4V |       | 12.6V |
| LOAD CURRENT RANGE       |                                                               | 0A    |       | 1.25A |
| PEAK LOAD CURRENT        | TIME<60S                                                      |       |       | 1.55A |
| RIPPLE                   | TYPICAL INPUT VOLTAGE , TYPICAL LOAD CURRENT , 25°C           |       |       | 100mV |
| HOLD-UP TIME             | AT TYPICAL INPUT VOLTAGE AND FULL LOAD                        | 10mS  |       |       |
| TURN-ON DELAY            | TYPICAL INPUT VOLTAGE AND TUP LOAD CURRENT                    |       |       | 1S    |
| OVER CURRENT PROTECTION  | AUTO RECOVERY                                                 |       |       |       |
| SHORT CIRCUIT PROTECTRON | THE ADAPTER SHALL NOT DAMAGE BY SHORT THE DC OUTPUT TO GROUND |       |       |       |
| OVER VOLTAGE PROTECTION  |                                                               |       | 6V    | 7.5V  |

## \*TEST MEASURES



C1: 0.1uF CERAMICS CAPACITOR  
C2: 10uF 50V ALUMINUM CAPACITOR

|        |             |                               |           |         |
|--------|-------------|-------------------------------|-----------|---------|
| Anthin | DESCRIPTION | SWITCHING POWER<br>AC ADAPTER | SHEET NO. | 3 OF 4  |
|        |             |                               | VER:      | A1      |
|        | MODEL NO.   | APT312-0524QC                 | PART NO.  | ST-0298 |

### 3.MECHANICAL

| ITEM         | SPECIFICATION OR TEST CONDITION                                                                                                                                                                                                                                                    | ACCEPTANCE CRITERIA                                                             |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| BENDING TEST | NORMAL TEMPERATURE<br>THE CORD SHALL WITHSTAND WEIGHT OF 200g, SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 60 DEG. 1000CYCLE TIMES MIN.<br>S/R SHALL WITHSTAND WEIGHT OF 1N. SWINGING FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 1000CYCLE TIMES MIN.<br>BENDING SPEED 40CYCLE/MINUTE | NO SHORT CIRCUIT<br>NO BREAKAGE OF THE CORD                                     |
| VIBRATION    | FREQUENCY RANGE:10~55Hz<br>AMPLITUDE:1.5mm<br>ACCELERATION: 1G<br>SWEEP 1 MINUTE FOR X,Y,Z,AXIS EACH                                                                                                                                                                               | THERE SHALL BENO<br>ABNORMALITY ON THE<br>APPEARANCE STRUCTURE<br>AND OPERATING |

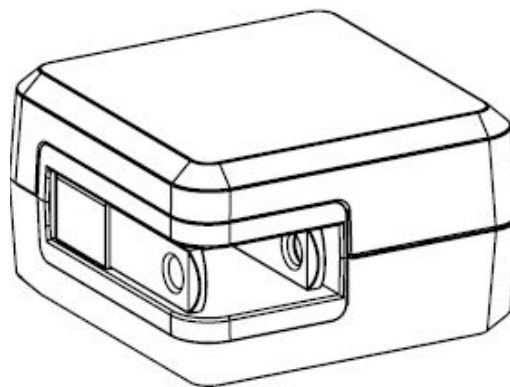
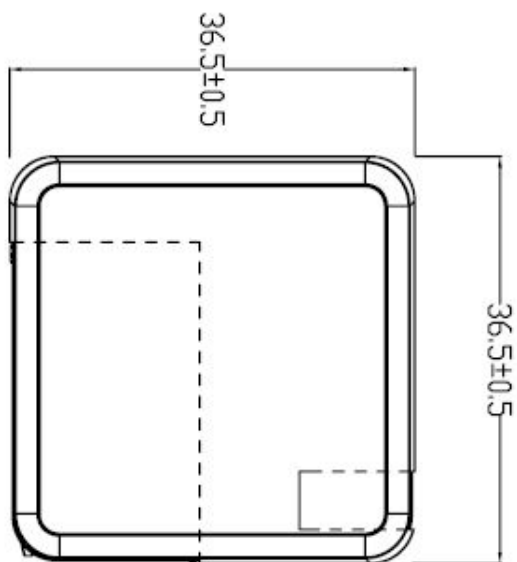
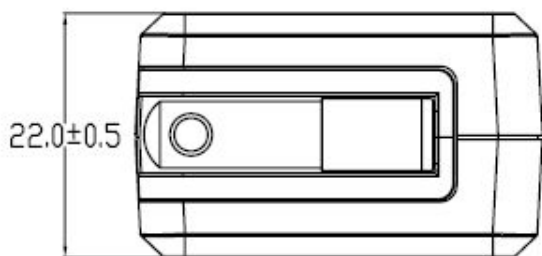
### 4.RELIABILITY

| ITEM                                | TEST CONDITION                                                                        | ACCEPTANCE CRITERIA                |
|-------------------------------------|---------------------------------------------------------------------------------------|------------------------------------|
| TEMPERATURE UP WITH<br>TYPICAL LOAD | TEST THE SURFACE OF THE CASE WITH TYPICAL<br>LOAD OUTPUT AND TYPICAL AC INPUT 50/60Hz | TEMPERATURE UP UNDER<br>35 DEGREES |
| HI-POT TEST                         | INPUT TO OUTPUT<br>3000Vac 3 SECONDS 5mA                                              | NO DAMAGE                          |
| INSULATION RESISTANCE               | INPUT TO OUTPUT,DC 500V                                                               | >100MΩ                             |
| MTBF                                | TYPICAL INPUT&FULL LOAD , 25℃                                                         | 50000 HOURS                        |
| LIFE                                | TYPICAL INPUT&FULL LOAD, 40℃<br>TYPICAL INPUT&FULL LOAD, 25℃                          | 1YEARS ABOVE<br>2YEARS ABOVE       |
| BURN-IN                             | AT 30℃(±10℃),NORMAL INPUT VOLTAGE                                                     | 2~4 HOURS                          |

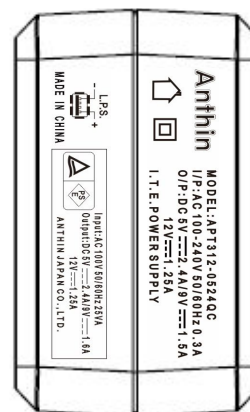
### 5.ENVIRONMENT

| ITEM                  | SPECIFICATION OR TEST CONDITION | min. | typ. | max.  |
|-----------------------|---------------------------------|------|------|-------|
| OPERATING TEMPERATURE |                                 | 0℃   |      | 40℃   |
| STORAGE TEMPERATURE   |                                 | -20℃ |      | 85℃   |
| OPERATING HUMIDITY    | NON-CONDENSING                  | 5%RH |      | 90%RH |
| STORAGE HUMIDITY      | NON-CONDENSING                  | 5%RH |      | 90%RH |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                 |           |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------|-----------|---------|
| Anthin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | DESCRIPTION | SWITCHING POWER | SHEET NO. | 4 OF 4  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             | AC ADAPTER      | VER:      | A1      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MODEL NO.   | APT312-0524QC   | PART NO.  | ST-0298 |
| <div>6.OUTLOOKING</div> <div><div><div>DIMENSION</div><div>WEIGHT</div><div>AC INPUT TYPE</div><div>DC OUTPUT TYPE</div></div><div><div>:36.5(L)X36.5(W)X22(H)mm</div><div>:ABOUT 35g</div><div>:WALL MOUNT</div><div>:USB 4PIN 母座</div></div></div> <div><div><div>DC OUTPUT CABLE</div><div>INDICATION</div><div>CASE MATERIAL</div><div>PCB MATERIAL</div></div><div><div>:</div><div>:LABEL</div><div>:94V-0 亮面 WHITE</div><div>:94V-0</div></div><div><div></div><div>ROHS COMPLIANT</div><div>ROHS COMPLIANT</div><div>ROHS COMPLIANT</div></div></div> <div>7.SAFETY</div> |             |                 |           |         |
| COMPLY SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |             | STANDARD        | FILE NO.  |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                 |           |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |                 |           |         |
| <div></div> <div><div>EMI</div><div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |                 |           |         |
| <div>8.QC CHECK</div> <div>ALL OF THE QUANTITY SHALL BE CHECKED BEFORE SHIPMENT,CHECK ITEM AS BELOW:</div> <div><div>(1)DC PLUG POLE CHECK</div><div>(2)OCP FUNCTION CHECK</div><div>(3)DC OUTPUT VOLTAGE CHECK</div><div>(4)HIPOT&amp;INSULATION CHECK</div><div>(5)OUTLOOKING CHECK</div></div>                                                                                                                                                                                                                                                                                 |             |                 |           |         |

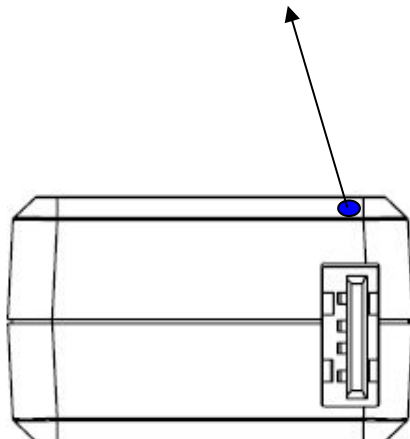


AC 输入



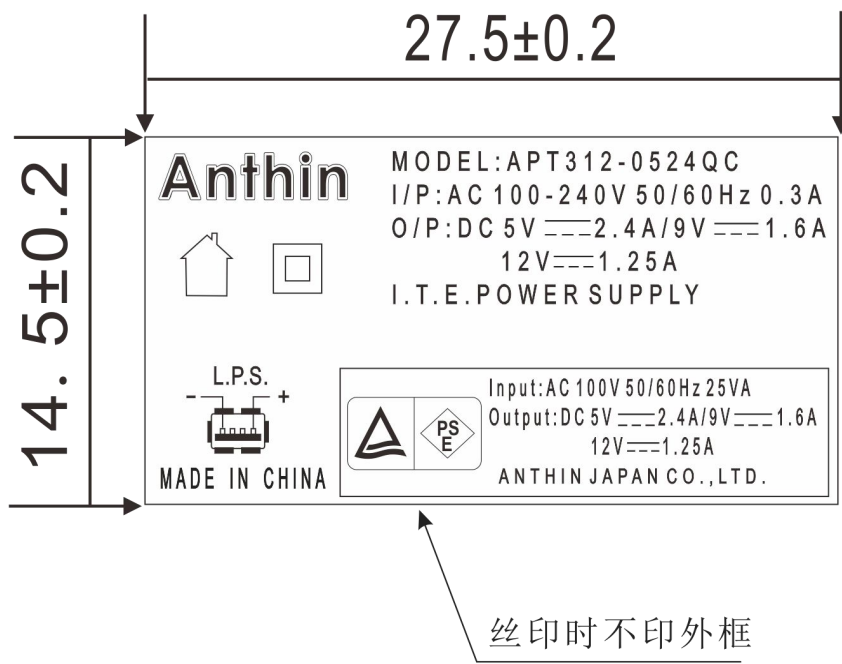
USB 输出

隐藏式LED灯



注：白色产品，丝印字体为灰色

| TOLERANCE |       |       |                                                                                     |         | FINISH   |    |  |          |      |
|-----------|-------|-------|-------------------------------------------------------------------------------------|---------|----------|----|--|----------|------|
| L<4       | ±0.05 | ±0.08 | ±0.1                                                                                | ±0.2    |          |    |  |          |      |
| 4<L<20    | ±0.08 | ±0.1  | ±0.2                                                                                | ±0.3    | MATERIAL |    |  |          | NAME |
| 20<L<50   | ±0.1  | ±0.15 | ±0.3                                                                                | ±0.4    |          |    |  |          |      |
| 50<L<200  | ±0.15 | ±0.25 | ±0.4                                                                                | ±0.6    |          |    |  |          |      |
| 200<L     | ±0.2  | ±0.4  | ±0.5                                                                                | ±0.8    | REV.     | A1 |  |          |      |
| DEG.      | CHKD. | APPD. |  | UNIT    | mm       |    |  | PART NO. |      |
| Anni      |       |       | SCALE                                                                               | REF.    |          |    |  |          |      |
|           |       |       |  | DWG NO. |          |    |  |          |      |
|           |       |       |                                                                                     |         |          |    |  |          |      |



NOTE:

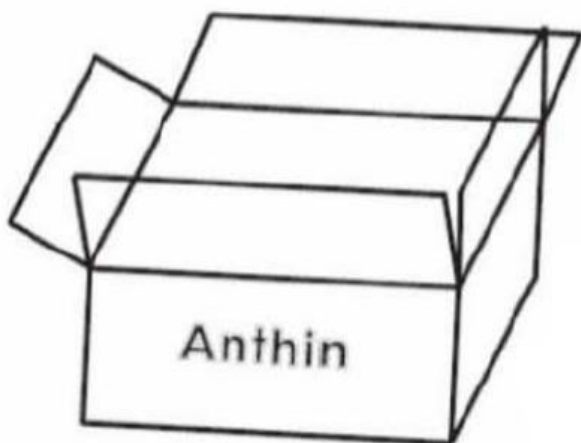
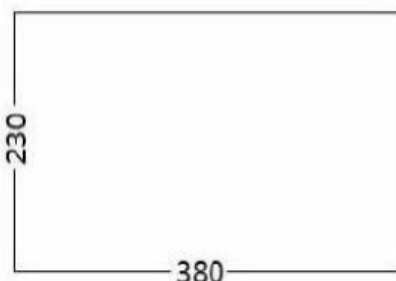
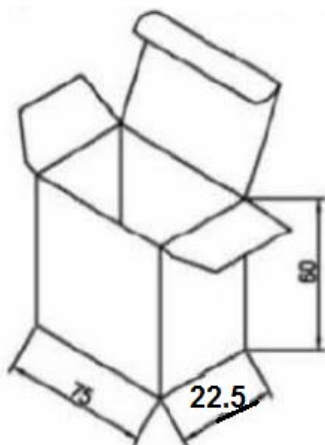
丝印字体为灰色

| TOLERANCE         |       |       |                                                                                     |      | FINISH |  |  |          | NAME:    |  | LABEL |
|-------------------|-------|-------|-------------------------------------------------------------------------------------|------|--------|--|--|----------|----------|--|-------|
| $L \leq 4$        | 0.05  | 0.08  | 0.1                                                                                 | 0.2  |        |  |  |          | MATERIAL |  |       |
| $4 < L \leq 20$   | 0.08  | 0.1   | 0.2                                                                                 | 0.3  |        |  |  |          |          |  |       |
| $20 < L \leq 50$  | 0.1   | 0.15  | 0.3                                                                                 | 0.4  |        |  |  |          |          |  |       |
| $50 < L \leq 200$ | 0.15  | 0.25  | 0.4                                                                                 | 0.6  |        |  |  |          |          |  |       |
| $200 < L$         | 0.2   | 0.4   | 0.5                                                                                 | 0.8  |        |  |  | PART NO. | ST-0298  |  |       |
| DEG.              | CHKD. | APPD. |  | UNIT | mm     |  |  |          |          |  |       |
| Anni              |       |       | SCALE                                                                               | REF. |        |  |  |          |          |  |       |
|                   |       |       |  | REM. |        |  |  |          |          |  |       |



PE袋:110\*80\*0.03mm

注：PE袋不要用胶纸固定



成品1PCS装入PE袋

装入PE袋成品 2PCS放入小白盒

小白盒材质（450G）

外径尺寸：长 x 宽 x 高

L75\*W22.5\*H60mm

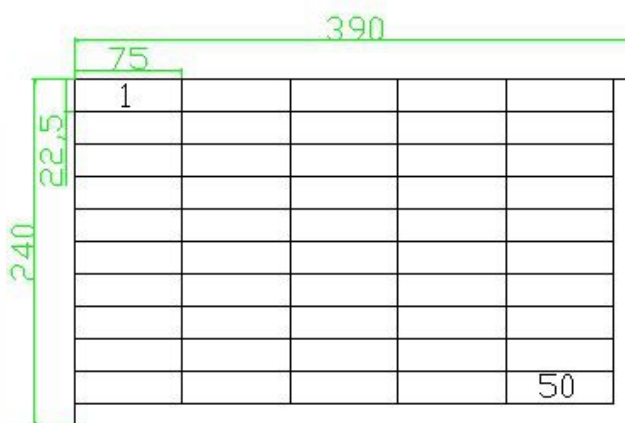
TOLERANCE:  $\pm 1$

WHITE INNER BOX+OUT CARTON

WHITE INNER BOX OUT SIDE DIMENSION:

L×W×H (75\*22.5\*60mm)

TOLERANCE:  $\pm 1$



每层装50个小白盒，共可装4层。

成品400PCS装入外箱

外箱3段：K=A

外径尺寸：长 X 宽 X 高

L390\*W240\*H282mm

平卡尺寸：长\*宽

L380\*W230mm

| TOLERANCE |       |       |                                                                                     |         | FINISH   |      |    |          |         |         |
|-----------|-------|-------|-------------------------------------------------------------------------------------|---------|----------|------|----|----------|---------|---------|
| L<4       | ±0.05 | ±0.08 | ±0.1                                                                                | ±0.2    |          |      |    |          |         |         |
| 4<L<20    | ±0.08 | ±0.1  | ±0.2                                                                                | ±0.3    | MATERIAL |      |    |          | NAME    | PACKING |
| 20<L<50   | ±0.1  | ±0.15 | ±0.3                                                                                | ±0.4    |          | REV. | A1 |          |         |         |
| 50<L<200  | ±0.15 | ±0.25 | ±0.5                                                                                | ±0.6    |          |      |    |          |         |         |
| 200<L     | ±0.2  | ±0.4  | ±0.5                                                                                | ±0.8    |          |      |    |          |         |         |
| DEG.      | CHKD. | APPD. |  | UNIT    | mm       |      |    | PART NO. | ST-0298 |         |
|           |       |       | SCALE                                                                               | REF.    |          |      |    |          |         |         |
|           |       |       |  | DWG NO. |          |      |    |          |         |         |