

# SPECIFICATION FOR APPROVAL

## 製品規格書

SPEC NO : [SASTFC22062903](#)

CUSTOMER :

客戶名稱 :

CUSTOMER PART NO :

客戶料號 :

PART NO :

[STFC1307ST36-1](#)

QUANTITY :

數量 :

[5](#) PCS

DATE :

日期 :

[2022-6-29](#)

REV NO :

版本 :

1.0

CUSTOMER APPROVE

## ⊕ Feature

- wideband, 0.2 to 350 MHz.
- DC Current: 30mA.
- Wide Frequenct Range.

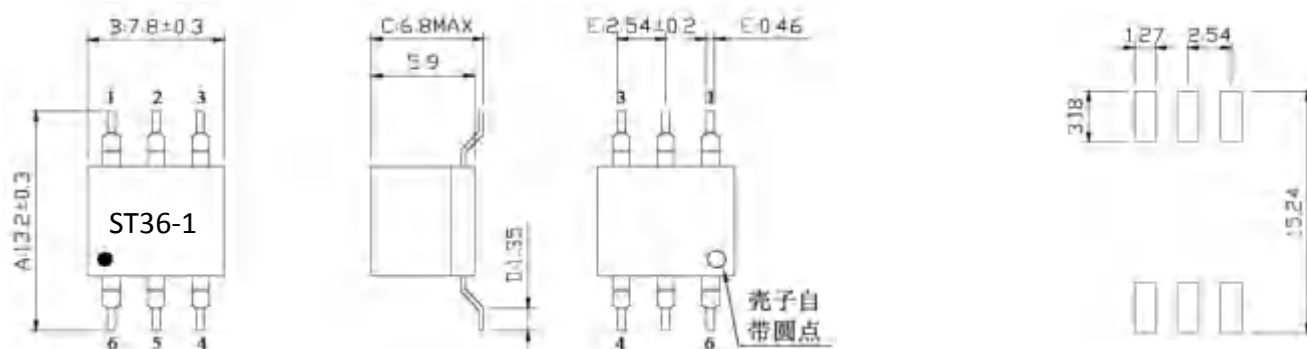
## ⊕ Applications

- Impedance matching.
- Balanced antennas.
- Receivers / Transmitters.

## ⊕ Shapes And Dimensions

## ⊕ Recommended Layout

(mm)



## ⊕ Electrical Characteristics :

| Part No.       | Insertion loss<br>(dB)<br>0.1-5MHz | Insertion loss<br>(dB)<br>0.05-10MHz | Insertion loss<br>(dB)<br>0.03-20MHz | Inductance<br>(μH) (4-6)<br>100KHz/0.1V | Inductance<br>(μH) (1-3)<br>100KHz/0.1V |
|----------------|------------------------------------|--------------------------------------|--------------------------------------|-----------------------------------------|-----------------------------------------|
| STFC1307ST36-1 | 1<br>Max                           | 2<br>Max                             | 3<br>Max                             | 36<br>± 50%                             | 1750<br>± 50%                           |

| Parameter         | Test Conditions   | Units | Min | Typ  | Max |
|-------------------|-------------------|-------|-----|------|-----|
| Impedance Ratio   | Secondary/Primary | --    | --  | 36:1 | --  |
| RF Power Rating   | --                | mW    | --  | --   | 250 |
| DC Current Rating | --                | mA    | --  | --   | 30  |
| Test Impedance    | --                | Ω     | --  | 50   | --  |

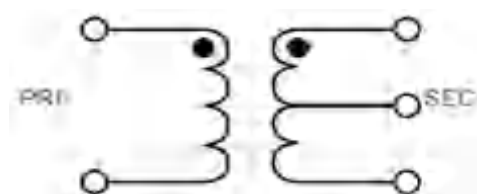
\*Electrical Specifications : TA=25°C, 0dBm, Z0=50Ω.

\*Insertion Loss is referenced to mid-band loss, 0.4 dB typ.

## ⊕ Pin Configuration :

| Pin | Function      |
|-----|---------------|
| 1   | Secondary     |
| 2   | --            |
| 3   | Secondary Dot |
| 4   | Primary Dot   |
| 5   | Not Used      |
| 6   | Primary       |

## ⊕ Equivalent Circuit Schematic :



1.Operating temperature -40°C ~ +105°C

2.Storage conditions -55°C ~ +105°C

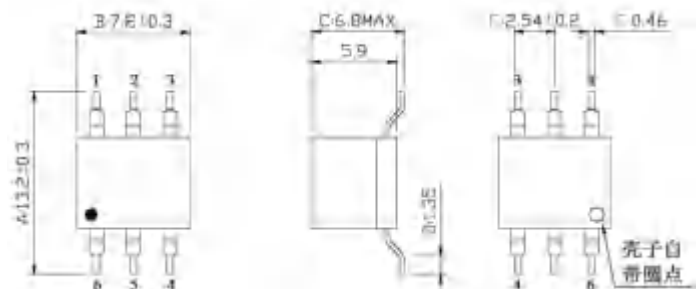
## TEST DATA FOR PREPRODUCTION SAMPLES

|               |                 |                 |                |           |  |                 |           |               |           |  |     |  |
|---------------|-----------------|-----------------|----------------|-----------|--|-----------------|-----------|---------------|-----------|--|-----|--|
| Customer      |                 |                 |                |           |  | Test Date       |           |               | 2022-6-29 |  |     |  |
| RSiN Part No. |                 |                 | STFC1307ST36-1 |           |  | Sample Quantity |           |               | 5         |  | PCS |  |
| Lot No        |                 |                 |                | Test Temp |  | 25℃             |           | Test Humidity |           |  | 62% |  |
| MEAS<br>Item  | L (4-6)<br>(μH) | L (1-3)<br>(μH) |                |           |  | A<br>(mm)       | B<br>(mm) | C<br>(mm)     |           |  |     |  |
| SPEC          | 36              | 1750            |                |           |  | 13.20           | 7.80      | 6.80          |           |  |     |  |
| Upper         | 54              | 2625            |                |           |  | 13.50           | 8.10      | 6.80          |           |  |     |  |
| Lower         | 18              | 875             |                |           |  | 12.90           | 7.50      | -             |           |  |     |  |
| Tolerance     | 50%             | 50%             |                |           |  | 0.30            | 0.30      | Max           |           |  |     |  |
| Test Freq.    | 100KHz/0.1V     |                 |                |           |  |                 |           |               |           |  |     |  |
| 1             | 35.00           | 1690.20         |                |           |  | 13.27           | 7.86      | 6.53          |           |  |     |  |
| 2             | 34.70           | 1648.70         |                |           |  | 13.28           | 7.89      | 6.45          |           |  |     |  |
| 3             | 38.80           | 1865.30         |                |           |  | 13.30           | 7.86      | 6.50          |           |  |     |  |
| 4             | 35.90           | 1733.40         |                |           |  | 13.25           | 7.84      | 6.48          |           |  |     |  |
| 5             | 36.50           | 1752.10         |                |           |  | 13.27           | 7.84      | 6.45          |           |  |     |  |
| 6             |                 |                 |                |           |  |                 |           |               |           |  |     |  |
| 7             |                 |                 |                |           |  |                 |           |               |           |  |     |  |
| 8             |                 |                 |                |           |  |                 |           |               |           |  |     |  |
| 9             |                 |                 |                |           |  |                 |           |               |           |  |     |  |
| 10            |                 |                 |                |           |  |                 |           |               |           |  |     |  |
| Average       | 36.18           | 1737.94         |                |           |  | 13.27           | 7.86      | 6.48          |           |  |     |  |
| Max           | 38.80           | 1865.30         |                |           |  | 13.30           | 7.89      | 6.53          |           |  |     |  |
| Min           | 34.70           | 1648.70         |                |           |  | 13.25           | 7.84      | 6.45          |           |  |     |  |
| Range         | 4.10            | 216.60          |                |           |  | 0.05            | 0.05      | 0.08          |           |  |     |  |
| StDevP        | 1.46            | 73.05           |                |           |  | 0.02            | 0.02      | 0.03          |           |  |     |  |

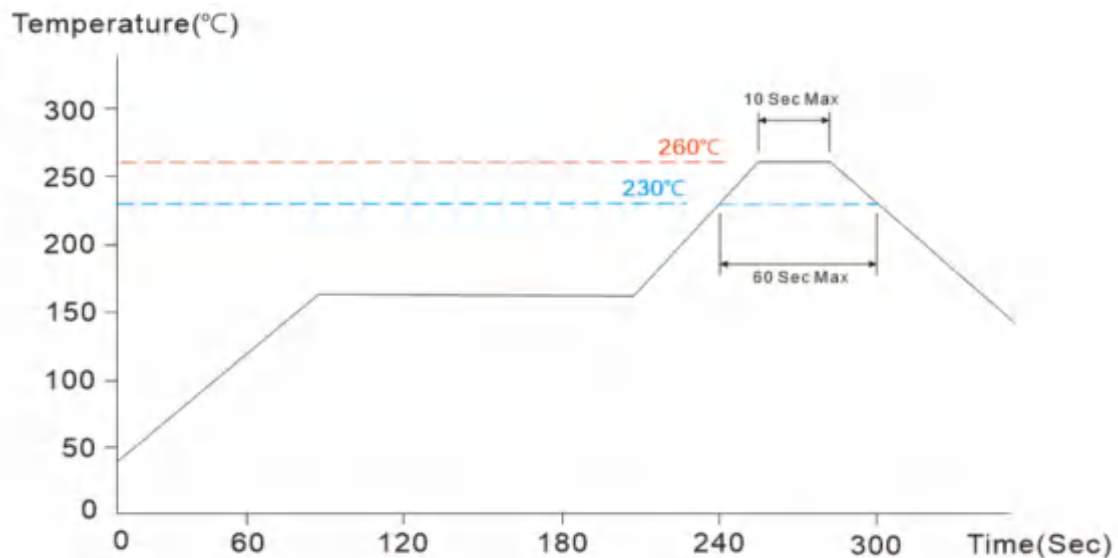
## Test Instrument

LCR      HP4284A or equivalent.  
DCR      CH502BC or equivalent.  
IDC      CH1320 or equivalent.

## Configuration



### ⊕ Reflow Soldering Heat Endurance

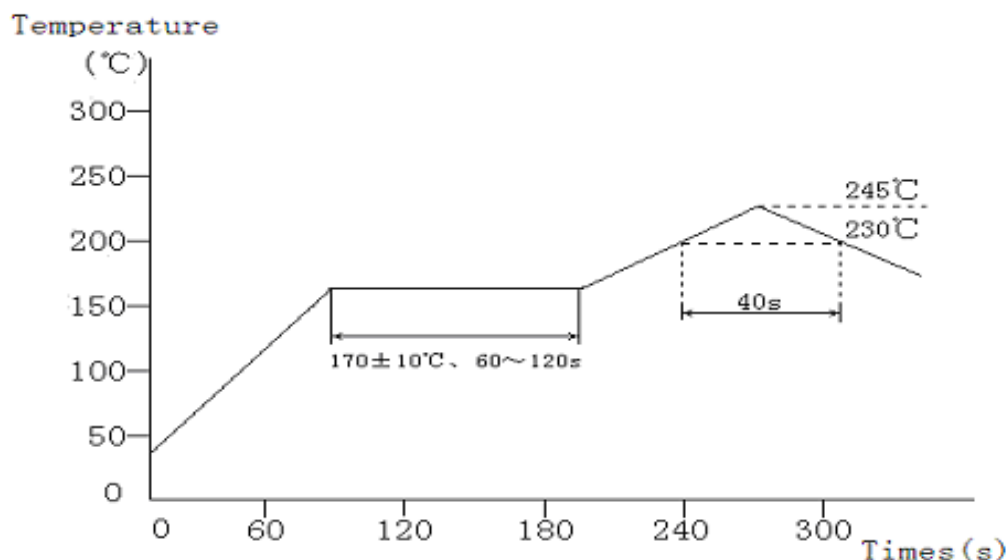


No mechanical and electrical defects are found after testing based on the above profile and keeping under the conditions of room temperature and humidity for 2 hours.

Twice reflow test is acceptable with the test interval remaining 1 hour under the normal conditions.

The reflow test profile may vary with the testing instruments.

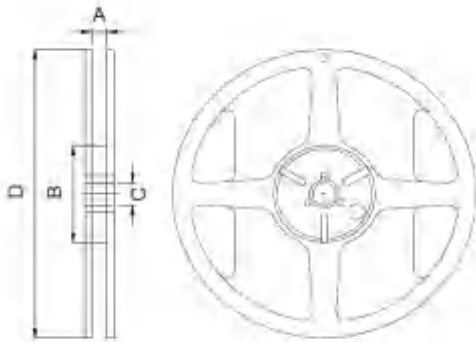
### ⊕ Recommended Reflow Conditions



The recommended reflow profile is based on the testing instruments used. Solder ability will depend on the testing equipments, reflow conditions, testing method, etc. So it is necessary to make a confirmation of them when the reflow conditions are set up.

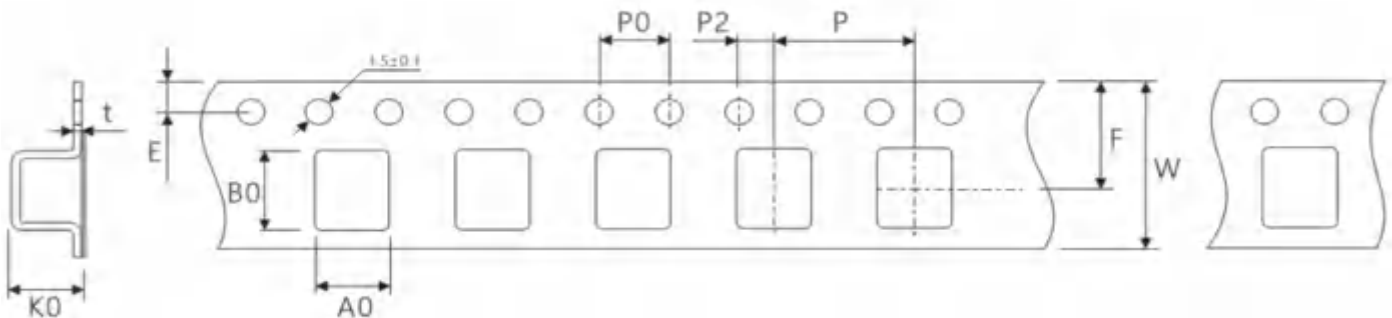
However halogen lamp shall be used, side heat will be beyond range of resistance heat, so we can't recommend it.

### ⊕ Reel Dimension(m/m)



| Item   | A    | B     | C    | D     |
|--------|------|-------|------|-------|
| 13"x24 | 24±1 | 100±1 | 13±1 | 330±1 |

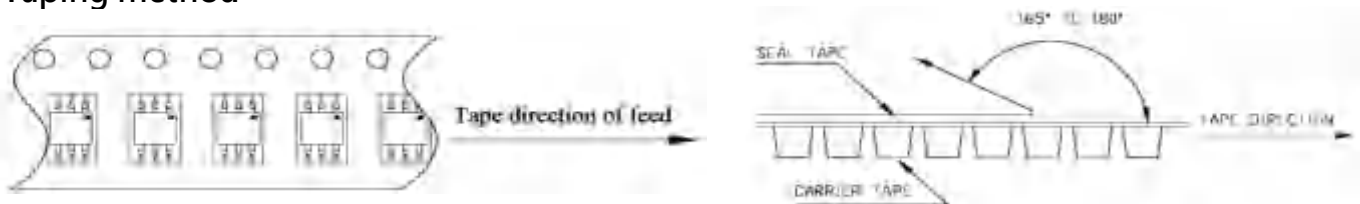
### ⊕ Taping Dimension(m/m)



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| Item | W      | Ao       | Bo       | Ko      | E        | F        | P      | Po    |
|------|--------|----------|----------|---------|----------|----------|--------|-------|
| 24mm | 24±0.3 | 8.3±0.1  | 13.6±0.1 | 6.7±0.1 | 1.75±0.1 | 11.5±0.1 | 12±0.1 | 4±0.1 |
|      | P2     | t        |          |         |          |          |        |       |
|      | 2±0.1  | 0.4±0.05 |          |         |          |          |        |       |

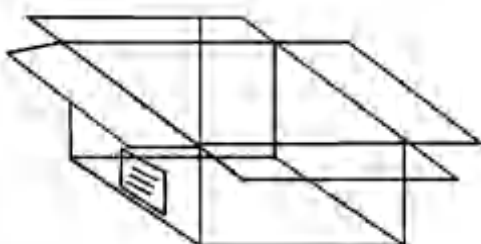
### ⊕ Taping method



\*The angle between the seal tape during peel off and the direction of unreeling shall be 165° to 180°

\*The peel force with a peel speed of 300mm/Min shall be 0.5N to 1.3N.

### ⊕ Packaging Carton



| Reel Packing Unit | Inner Box Packing Unit | Carton Packing Unit |
|-------------------|------------------------|---------------------|
| 800 PCS / Reel    | 1,600 PCS / Box        | 3,200 PCS / Box     |

