

# Fixed Inductors (Axial Lead Type) GSAL

## Features (特長)

Coating epoxy resin that ensures the humidity resistance to be long life.

(樹脂塗裝可耐環境乾燥及長壽命)

Low Cost. (低成本)

## Applications (用途)

Electronics products (電子產品)

Communication equipment (通訊器材)

Computer Devices (電腦週邊設備)

TV, VCR (電視、攝影機)



## Product Identification (產品 )

GSAL \_ \_ \_ \_ G - \_ \_ \_ (Ex.GSALNR0204G-R10M)

I



1 2 3 4 5 6 7

1. Fixed Inductors (Axial Lead Type) (色碼電感) (GSAL)

2. Form (型式)

N → Normal Form (一般長帶)

S → Short Form (短帶)

F → F Forming (F 型)

U → U Forming (U 型)

P → Pana Forming without coating of lead wire (Pana 彎型 漆)

PC → Pana Forming with coating of lead wire (Pana 彎型塗腳漆)

3. Packing (包裝)

B → In Bulk (散裝)

A → Tapping with Ammo Box (盒裝)

R → Tapping with Reel (捲裝)

4. Size (尺寸) (0204,0307,0410,0510)

5. 表示無鉛

6. Inductance (電感值)

7. Tolerance (誤差值) (J 5%, K 10%, M 20%)

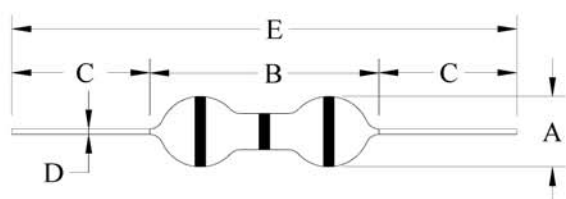
# Fixed Inductors (Axial Lead Type) GSAL

Configurations & Dimensions (結構圖及規格尺寸)

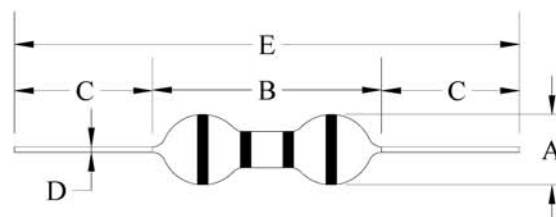
Form (型式)

(1) Normal Form & Short Form (一般型: 長帶 & 短帶)

GSAL0204G



GSAL0307G,GSAL0410G,GSAL0510G

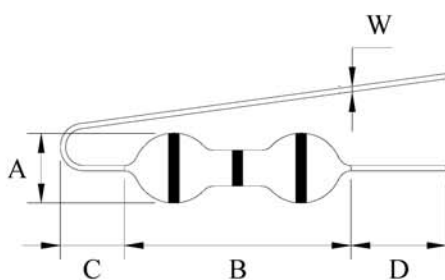


Unit in mm

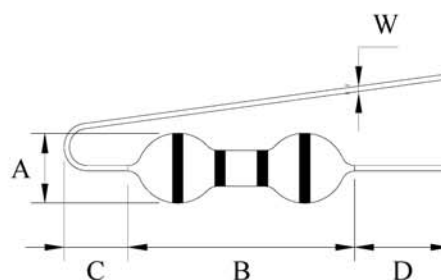
| Type<br>(型式)      | ØA<br>(max) | B<br>(max)  | C<br>± 3.0  | Ø D<br>± 0.05 | E<br>±1.5   |
|-------------------|-------------|-------------|-------------|---------------|-------------|
| GSALN0204G        | 2.8         | 5.0         | 29.5        | 0.50          | 62.5        |
| GSALS0204G        | 2.8         | 5.0         | 16.0        | 0.50          | 36.5        |
| <b>GSALN0307G</b> | <b>3.0</b>  | <b>7.0</b>  | <b>28.0</b> | <b>0.50</b>   | <b>62.5</b> |
| GSALS0307G        | 3.0         | 7.0         | 15.0        | 0.50          | 36.5        |
| <b>GSALN0410G</b> | <b>4.0</b>  | <b>10.0</b> | <b>26.0</b> | <b>0.65</b>   | <b>62.5</b> |
| GSALS0410G        | 4.0         | 10.0        | 14.0        | 0.65          | 36.5        |
| GSALN0510G        | 5.0         | 10.0        | 26.0        | 0.65          | 62.5        |
| GSALS0510G        | 5.0         | 10.0        | 14.0        | 0.65          | 36.5        |

(2) F Forming (F 彎型)

GSALFB0204G



GSALFB0307G,GSALFB0410G  
GSALFB0510G



Unit in mm

| Sym.    | GSAL0204G | GSAL0307G | GSAL0410G | GSAL0510G |
|---------|-----------|-----------|-----------|-----------|
| A (max) | 2.80      | 3.00      | 4.00      | 5.00      |
| B (max) | 5.00      | 7.00      | 10.00     | 10.00     |
| C (max) | 6.00      | 6.00      | 6.00      | 6.00      |
| D (min) | 3.60      | 3.60      | 4.00      | 4.00      |
| W ±0.05 | 0.50Ø     | 0.50Ø     | 0.65Ø     | 0.65Ø     |

# Fixed Inductors (Axial Lead Type)

## GSAL0307G

Electrical Characteristics for GSAL0307G Series [ GSAL0307G 系列電子特性規格 ]

| Part Number<br>產 品 料 號 | Inductance<br>( $\mu$ H)<br>電感值(L) | Q<br>(min)<br>品質因數 | Freq.<br>(MHz)<br>測試頻率 | SRF(MHz)<br>(min)<br>共振頻率 | DCR( $\Omega$ )<br>(max)<br>直流阻抗 | IDC(mA)<br>(max)<br>定格電流 |
|------------------------|------------------------------------|--------------------|------------------------|---------------------------|----------------------------------|--------------------------|
| GSAL□□0307G-R10M       | 0.10                               | 40                 | 25.2                   | 480                       | 0.060                            | 1400                     |
| GSAL□□0307G-R12M       | 0.12                               | 40                 | 25.2                   | 450                       | 0.060                            | 1350                     |
| GSAL□□0307G-R15M       | 0.15                               | 40                 | 25.2                   | 420                       | 0.070                            | 1270                     |
| GSAL□□0307G-R18M       | 0.18                               | 40                 | 25.2                   | 400                       | 0.070                            | 1200                     |
| GSAL□□0307G-R22M       | 0.22                               | 40                 | 25.2                   | 380                       | 0.080                            | 1150                     |
| GSAL□□0307G-R27M       | 0.27                               | 40                 | 25.2                   | 360                       | 0.085                            | 1110                     |
| GSAL□□0307G-R33M       | 0.33                               | 40                 | 25.2                   | 350                       | 0.095                            | 1110                     |
| GSAL□□0307G-R39M       | 0.39                               | 40                 | 25.2                   | 320                       | 0.100                            | 1000                     |
| GSAL□□0307G-R47M       | 0.47                               | 40                 | 25.2                   | 300                       | 0.110                            | 1000                     |
| GSAL□□0307G-R56M       | 0.56                               | 40                 | 25.2                   | 280                       | 0.120                            | 950                      |
| GSAL□□0307G-R68M       | 0.68                               | 40                 | 25.2                   | 250                       | 0.130                            | 900                      |
| GSAL□□0307G-R82M       | 0.82                               | 40                 | 25.2                   | 200                       | 0.140                            | 900                      |
| GSAL□□0307G-1R0K       | 1.00                               | 40                 | 25.2                   | 180                       | 0.150                            | 815                      |
| GSAL□□0307G-1R2K       | 1.20                               | 40                 | 7.96                   | 165                       | 0.180                            | 740                      |
| GSAL□□0307G-1R5K       | 1.50                               | 40                 | 7.96                   | 150                       | 0.200                            | 700                      |
| GSAL□□0307G-1R8K       | 1.80                               | 50                 | 7.96                   | 125                       | 0.230                            | 655                      |
| GSAL□□0307G-2R2K       | 2.20                               | 50                 | 7.96                   | 110                       | 0.250                            | 630                      |
| GSAL□□0307G-2R7K       | 2.70                               | 50                 | 7.96                   | 95                        | 0.280                            | 595                      |
| GSAL□□0307G-3R3K       | 3.30                               | 50                 | 7.96                   | 70                        | 0.300                            | 575                      |
| GSAL□□0307G-3R9K       | 3.90                               | 50                 | 7.96                   | 65                        | 0.320                            | 555                      |
| GSAL□□0307G-4R7K       | 4.70                               | 50                 | 7.96                   | 50                        | 0.350                            | 530                      |
| GSAL□□0307G-5R6K       | 5.60                               | 50                 | 7.96                   | 40                        | 0.400                            | 500                      |
| GSAL□□0307G-6R8K       | 6.80                               | 50                 | 7.96                   | 30                        | 0.450                            | 470                      |
| GSAL□□0307G-8R2K       | 8.20                               | 50                 | 7.96                   | 28                        | 0.560                            | 425                      |
| GSAL□□0307G-100K       | 10.00                              | 50                 | 7.96                   | 22                        | 0.750                            | 370                      |
| GSAL□□0307G-120K       | 12.00                              | 50                 | 2.52                   | 20                        | 0.800                            | 350                      |
| GSAL□□0307G-150K       | 15.00                              | 50                 | 2.52                   | 16                        | 0.930                            | 335                      |
| GSAL□□0307G-180K       | 18.00                              | 50                 | 2.52                   | 15                        | 1.000                            | 315                      |
| GSAL□□0307G-220K       | 22.00                              | 50                 | 2.52                   | 13                        | 1.200                            | 285                      |
| GSAL□□0307G-270K       | 27.00                              | 50                 | 2.52                   | 11                        | 1.800                            | 270                      |
| GSAL□□0307G-330K       | 33.00                              | 50                 | 2.52                   | 10                        | 2.100                            | 255                      |
| GSAL□□0307G-390K       | 39.00                              | 50                 | 2.52                   | 9.5                       | 2.300                            | 240                      |
| GSAL□□0307G-470K       | 47.00                              | 50                 | 2.52                   | 8.5                       | 2.600                            | 205                      |
| GSAL□□0307G-560K       | 56.00                              | 50                 | 2.52                   | 7.5                       | 2.900                            | 195                      |
| GSAL□□0307G-680K       | 68.00                              | 50                 | 2.52                   | 6.5                       | 3.300                            | 185                      |
| GSAL□□0307G-820K       | 82.00                              | 50                 | 2.52                   | 6.0                       | 3.800                            | 175                      |
| GSAL□□0307G-101K       | 100.00                             | 50                 | 2.52                   | 5.5                       | 4.200                            | 165                      |



# Fixed Inductors (Axial Lead Type)

## GSAL0307G

Electrical Characteristics for GSAL0307G Series〔GSAL0307G 系列電子特性規格〕

| Part Number      | Inductance<br>( $\mu$ H) | Q<br>(min) | Freq.<br>(MHz) | SRF(MHz)<br>(min) | DCR( $\Omega$ )<br>(max) | IDC (mA)<br>(max) |
|------------------|--------------------------|------------|----------------|-------------------|--------------------------|-------------------|
| 產 品 料 號          | 電感值(L)                   | 品質因數       | 測試頻率           | 共振頻率              | 直流阻抗                     | 定格電流              |
| GSAL□□0307G-121K | 120.00                   | 60         | 0.796          | 5.4               | 4.700                    | 160               |
| GSAL□□0307G-151K | 150.00                   | 60         | 0.796          | 4.7               | 5.400                    | 150               |
| GSAL□□0307G-181K | 180.00                   | 60         | 0.796          | 4.3               | 6.000                    | 140               |
| GSAL□□0307G-221K | 220.00                   | 60         | 0.796          | 4.0               | 7.000                    | 130               |
| GSAL□□0307G-271K | 270.00                   | 60         | 0.796          | 3.7               | 7.700                    | 120               |
| GSAL□□0307G-331K | 330.00                   | 60         | 0.796          | 3.4               | 11.100                   | 100               |
| GSAL□□0307G-391K | 390.00                   | 60         | 0.796          | 2.8               | 12.600                   | 95                |
| GSAL□□0307G-471K | 470.00                   | 60         | 0.796          | 2.5               | 14.000                   | 90                |
| GSAL□□0307G-561K | 560.00                   | 60         | 0.796          | 2.3               | 15.500                   | 85                |
| GSAL□□0307G-681K | 680.00                   | 60         | 0.796          | 2.0               | 25.300                   | 75                |
| GSAL□□0307G-821K | 820.00                   | 60         | 0.796          | 1.5               | 27.500                   | 65                |
| GSAL□□0307G-102K | 1000.00                  | 50         | 0.796          | 1.2               | 31.400                   | 60                |

# Fixed Inductors (Axial Lead Type)

## GSAL0410G

Electrical Characteristics for GSAL0410G Series〔GSAL0410G 系列電子特性規格〕

| Part Number      | Inductance<br>( $\mu$ H) | Q<br>(min) | Freq.<br>(MHz) | SRF(MHz) | DCR( $\Omega$ )<br>(max) | IDC(mA)<br>(max) |
|------------------|--------------------------|------------|----------------|----------|--------------------------|------------------|
| 產 品 料 號          | 電感值(L)                   | 品質因數       | 測試頻率           | 共振頻率     | 直流阻抗                     | 定格電流             |
| GSAL□□0410G-R10M | 0.10                     | 25         | 25.2           | 480      | 0.060                    | 1700             |
| GSAL□□0410G-R12M | 0.12                     | 25         | 25.2           | 450      | 0.060                    | 1640             |
| GSAL□□0410G-R15M | 0.15                     | 25         | 25.2           | 420      | 0.070                    | 1560             |
| GSAL□□0410G-R18M | 0.18                     | 25         | 25.2           | 400      | 0.070                    | 1480             |
| GSAL□□0410G-R22M | 0.22                     | 25         | 25.2           | 380      | 0.080                    | 1400             |
| GSAL□□0410G-R27M | 0.27                     | 25         | 25.2           | 340      | 0.090                    | 1320             |
| GSAL□□0410G-R33M | 0.33                     | 25         | 25.2           | 300      | 0.100                    | 1280             |
| GSAL□□0410G-R39M | 0.39                     | 25         | 25.2           | 280      | 0.120                    | 1200             |
| GSAL□□0410G-R47M | 0.47                     | 25         | 25.2           | 250      | 0.130                    | 1150             |
| GSAL□□0410G-R56M | 0.56                     | 25         | 25.2           | 230      | 0.140                    | 1100             |
| GSAL□□0410G-R68M | 0.68                     | 25         | 25.2           | 210      | 0.150                    | 1030             |
| GSAL□□0410G-R82M | 0.82                     | 45         | 25.2           | 172      | 0.160                    | 980              |
| GSAL□□0410G-1R0K | 1.00                     | 45         | 25.2           | 157      | 0.170                    | 920              |
| GSAL□□0410G-1R2K | 1.20                     | 50         | 7.96           | 144      | 0.180                    | 880              |
| GSAL□□0410G-1R5K | 1.50                     | 50         | 7.96           | 131      | 0.200                    | 830              |
| GSAL□□0410G-1R8K | 1.80                     | 55         | 7.96           | 121      | 0.220                    | 790              |
| GSAL□□0410G-2R2K | 2.20                     | 55         | 7.96           | 110      | 0.240                    | 750              |
| GSAL□□0410G-2R7K | 2.70                     | 60         | 7.96           | 100      | 0.250                    | 720              |
| GSAL□□0410G-3R3K | 3.30                     | 65         | 7.96           | 94       | 0.300                    | 670              |
| GSAL□□0410G-3R9K | 3.90                     | 65         | 7.96           | 86       | 0.350                    | 640              |
| GSAL□□0410G-4R7K | 4.70                     | 70         | 7.96           | 80       | 0.400                    | 620              |
| GSAL□□0410G-5R6K | 5.60                     | 70         | 7.96           | 74       | 0.450                    | 590              |
| GSAL□□0410G-6R8K | 6.80                     | 75         | 7.96           | 68       | 0.500                    | 550              |
| GSAL□□0410G-8R2K | 8.20                     | 80         | 7.96           | 53       | 0.600                    | 530              |
| GSAL□□0410G-100K | 10.00                    | 80         | 7.96           | 45       | 0.650                    | 500              |
| GSAL□□0410G-120K | 12.00                    | 75         | 2.52           | 34       | 0.700                    | 480              |
| GSAL□□0410G-150K | 15.00                    | 70         | 2.52           | 20       | 0.750                    | 460              |
| GSAL□□0410G-180K | 18.00                    | 65         | 2.52           | 14       | 0.800                    | 430              |
| GSAL□□0410G-220K | 22.00                    | 50         | 2.52           | 9.9      | 0.900                    | 410              |
| GSAL□□0410G-270K | 27.00                    | 55         | 2.52           | 7.6      | 1.000                    | 390              |
| GSAL□□0410G-330K | 33.00                    | 55         | 2.52           | 6.3      | 1.100                    | 370              |
| GSAL□□0410G-390K | 39.00                    | 50         | 2.52           | 6.3      | 1.200                    | 350              |
| GSAL□□0410G-470K | 47.00                    | 45         | 2.52           | 6.3      | 1.300                    | 340              |
| GSAL□□0410G-560K | 56.00                    | 40         | 2.52           | 6.2      | 1.500                    | 320              |
| GSAL□□0410G-680K | 68.00                    | 40         | 2.52           | 5.7      | 1.800                    | 305              |
| GSAL□□0410G-820K | 82.00                    | 35         | 2.52           | 5.3      | 2.000                    | 290              |
| GSAL□□0410G-101K | 100.00                   | 30         | 2.52           | 4.8      | 2.500                    | 275              |

# Fixed Inductors (Axial Lead Type)

## GSAL0410G

Electrical Characteristics for GSAL0410G Series〔GSAL0410G 系列電子特性規格〕

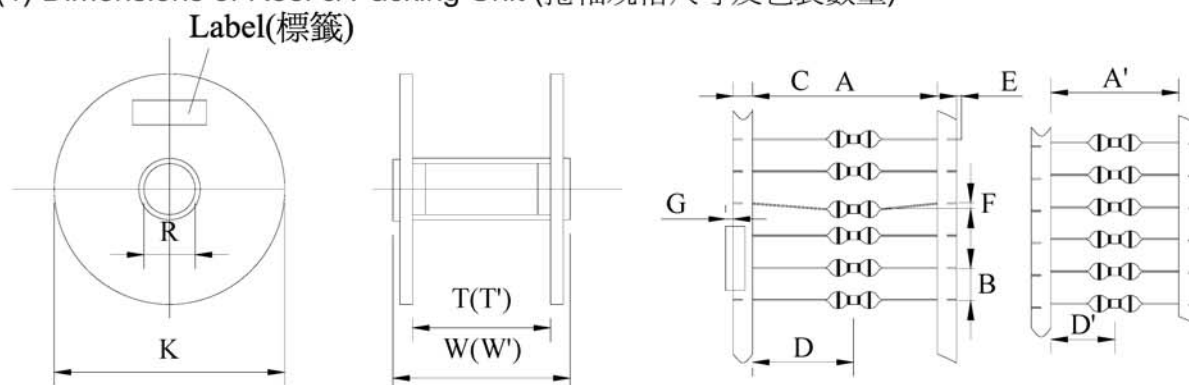
| Part Number      | Inductance<br>( $\mu$ H) | Q<br>(min) | Freq.<br>(MHz) | SRF(MHz)<br>(min) | DCR( $\Omega$ )<br>(max) | IDC(mA)<br>(max) |
|------------------|--------------------------|------------|----------------|-------------------|--------------------------|------------------|
| 產 品 料 號          | 電感值(L)                   | 品質因數       | 測試頻率           | 共振頻率              | 直流阻抗                     | 定格電流             |
| GSAL□□0410G-121K | 120.00                   | 70         | 0.796          | 3.8               | 3.000                    | 185              |
| GSAL□□0410G-151K | 150.00                   | 70         | 0.796          | 3.5               | 4.200                    | 175              |
| GSAL□□0410G-181K | 180.00                   | 70         | 0.796          | 3.3               | 4.600                    | 165              |
| GSAL□□0410G-221K | 220.00                   | 70         | 0.796          | 3.0               | 5.100                    | 155              |
| GSAL□□0410G-271K | 270.00                   | 65         | 0.796          | 2.8               | 6.000                    | 145              |
| GSAL□□0410G-331K | 330.00                   | 65         | 0.796          | 2.6               | 6.500                    | 137              |
| GSAL□□0410G-391K | 390.00                   | 65         | 0.796          | 2.4               | 7.500                    | 133              |
| GSAL□□0410G-471K | 470.00                   | 60         | 0.796          | 2.2               | 8.500                    | 126              |
| GSAL□□0410G-561K | 560.00                   | 60         | 0.796          | 2.1               | 9.500                    | 120              |
| GSAL□□0410G-681K | 680.00                   | 55         | 0.796          | 1.9               | 12.000                   | 113              |
| GSAL□□0410G-821K | 820.00                   | 55         | 0.796          | 1.8               | 14.000                   | 105              |
| GSAL□□0410G-102K | 1000.00                  | 50         | 0.796          | 1.4               | 20.000                   | 85               |



# Packaging Specifications for Fixed Inductors (Axial Lead Type)

## Packaging Specification (包裝規格)

### (1) Dimensions of Reel & Packing Unit (捲軸規格尺寸及包裝數量)



### (A) Dimensions of Tape & Reel (打帶及捲軸規格尺寸)

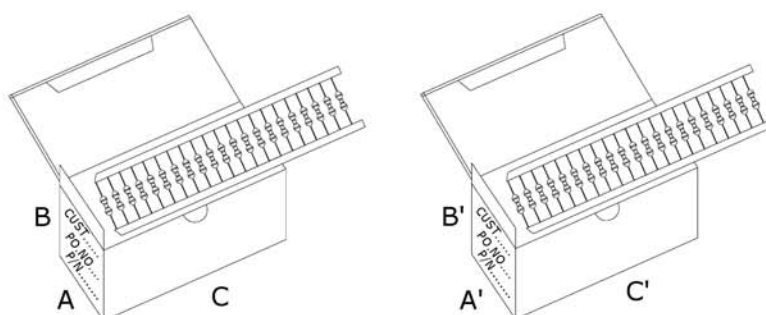
Unit In mm

| Sym. | Dimensions       | Sym. | Dimensions        | Sym. | Dimensions       |
|------|------------------|------|-------------------|------|------------------|
| A    | 52.00 $\pm$ 1.50 | E    | 0.00 $\pm$ 0.50   | T'   | 45.00 $\pm$ 0.50 |
| A'   | 26.00 $\pm$ 1.50 | F    | 1.00 (max)        | W    | 76.00 $\pm$ 0.50 |
| B    | 5.00 $\pm$ 0.50  | G    | 1.00 (max)        | W'   | 50.00 $\pm$ 0.50 |
| C    | 6.00 $\pm$ 1.00  | K    | 355.00 $\pm$ 0.50 |      |                  |
| D    | 26.00 $\pm$ 0.50 | R    | 15.00 $\pm$ 0.50  |      |                  |
| D'   | 13.00 $\pm$ 0.50 | T    | 71.00 $\pm$ 0.50  |      |                  |

### (B) Packing Unit for Reel (捲裝數量)

| Item (項目)                 | GSAL0204G   | GSAL0307G   | GSAL0410G   | GSAL0510G   |
|---------------------------|-------------|-------------|-------------|-------------|
| Q' TY/ Reel (一捲數量)        | 5,000 PCS   | 5,000 PCS   | 5,000 PCS   | 3,000 PCS   |
| GW/Reel (Approx.)(大約一捲總重) | 1.4 Kgm     | 1.6 Kgm     | 2.0 Kgm     | 2.0 Kgm     |
| Q' TY/CTN. (一箱數量)         | 25,000 PCS  | 25,000 PCS  | 25,000 PCS  | 15,000 PCS  |
| NW/CTN. (Approx.)(大約一箱淨重) | 7.0 Kgm     | 8.0 Kgm     | 10.0 Kgm    | 10.0 Kgm    |
| GW/CTN.(Approx.)(大約一箱總重)  | 8.0 Kgm     | 9.0 Kgm     | 11.0 Kgm    | 11.0 Kgm    |
| Carton Size (mm) (外箱尺寸)   | 397x397x479 | 397x397x479 | 397x397x479 | 397x397x479 |

### (2) Dimensions of Box & Packing Unit (盒裝規格尺寸及包裝數量)



# Packaging Specifications for Fixed Inductors (Axial Lead Type)

## Packaging Specification (包裝規格)

### (A) Dimensions Of Ammo Box(盒裝規格尺寸)

Unit In mm

| Sym. | Dimensions       | Sym. | Dimensions        | Sym. | Dimensions        |
|------|------------------|------|-------------------|------|-------------------|
| A    | 74.00 $\pm$ 0.30 | B    | 108.00 $\pm$ 0.30 | C    | 260.00 $\pm$ 0.30 |
| A'   | 48.00 $\pm$ 0.30 | B'   | 105.00 $\pm$ 0.30 | C'   | 255.00 $\pm$ 0.30 |

### (B) Packing Unit for Ammo Box (盒裝數量)

| Item (項目)                    | GSAL0204G   | GSAL0307G   | GSAL0410G   | GSAL0510G   |
|------------------------------|-------------|-------------|-------------|-------------|
| Q' TY / Ammo Box (一盒數量)      | 3,000 PCS   | 3,000 PCS   | 2,000 PCS   | 1,500 PCS   |
| GW / Box(Approx.) (大約一盒總重)   | 0.8 KGM     | 0.9 KGM     | 1.0 KGM     | 0.7 KGM     |
| Q' TY / CTN. (一箱數量)          | 30,000 PCS  | 30,000 PCS  | 20,000 PCS  | 10,000 PCS  |
| NW / CTN. (Approx.) (大約一箱淨重) | 6.0 Kgm     | 7.0 Kgm     | 8.0 Kgm     | 5.0 Kgm     |
| GW / CTN.(Approx.) (大約一箱總重)  | 8.0 Kgm     | 9.0 Kgm     | 10.0 Kgm    | 7.0 Kgm     |
| Carton Size (mm) (外箱尺寸)      | 438x295x270 | 438x295x270 | 438x295x270 | 438x295x270 |

### (3) Packing Unit for Bulk (散裝數量)

| Item (項目)                   | GSAL0204G | GSAL0307G | GSAL0410G | GSAL0510G |
|-----------------------------|-----------|-----------|-----------|-----------|
| Q' TY/ Bag (一包數量)           | 1,000 PCS | 1,000 PCS | 1,000 PCS | 500 PCS   |
| GW / Bag (Approx.) (大約一包總重) | 0.1 Kgm   | 0.15 Kgm  | 0.3 Kgm   | 0.3 Kgm   |