

# 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 (產品識別)

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

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)
- F → F Forming (F 型)
- U → U Forming (U 型)

3. Packing (包裝)

- B → In Bulk (散裝)
- R → Tapping with Reel (捲裝)

4. Size (尺寸) (0204, 0307, 0410)

5. Lead Free (表示無鉛)

6. Inductance (電感值)

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

# Fixed Inductors (Axial Lead Type) GSAL

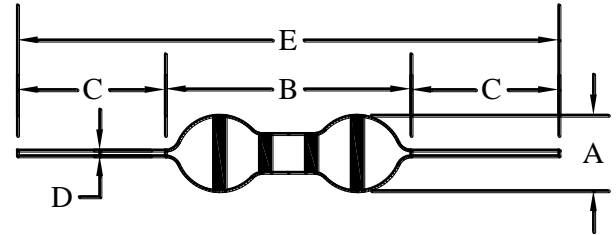
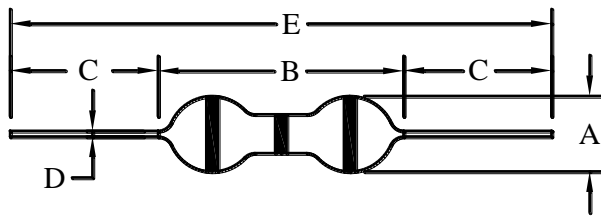
Configurations & Dimensions (結構圖及規格尺寸)

Form (型式)

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

GSAL0204G

GSAL0307G,GSAL0410G



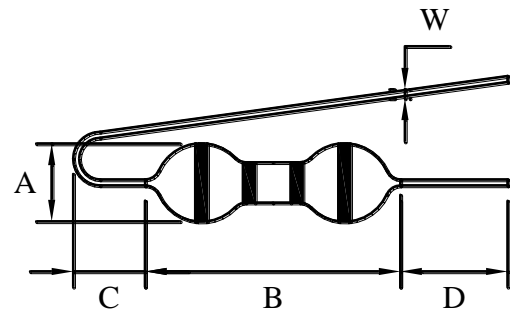
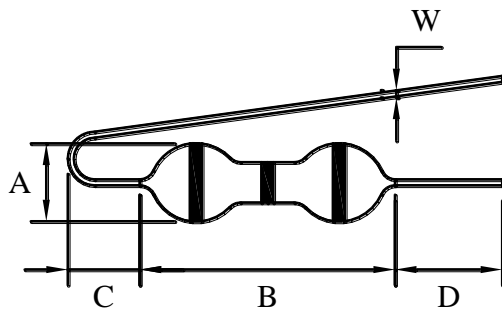
Unit in mm

Type (型式)	∅A (max)	B (max)	C ± 3.0	∅D ± 0.05	E ± 1.5
GSALN0204G	2.8	5.0	29.5	0.50	62.5
GSALN0307G	3.0	7.0	28.0	0.50	62.5
GSALN0410G	4.0	10.0	26.0	0.65	62.5

(2) F Forming (F 彎型)

GSALFB0204G

GSALFB0307G,GSALFB0410G



Unit in mm

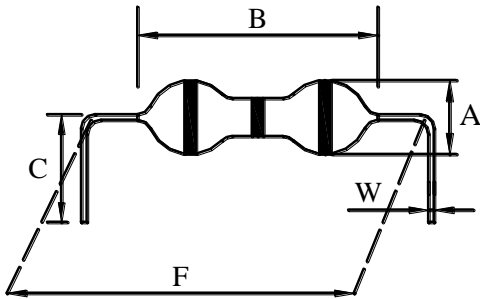
Sym.	GSALFB0204G	GSALFB0307G	GSALFB0410G
A (max)	2.80	3.00	4.00
B (max)	5.00	7.00	10.00
C (max)	6.00	6.00	6.00
D (min)	3.60	3.60	4.00
W ±0.05	0.50∅	0.50∅	0.65∅

# Fixed Inductors (Axial Lead Type) GSAL

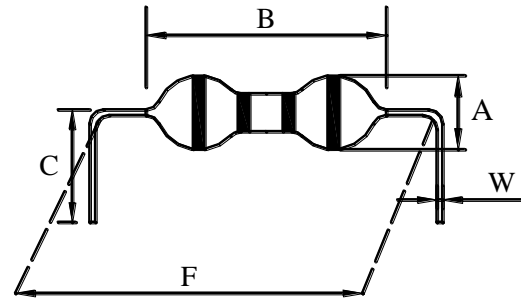
Configurations & Dimensions (結構圖及規格尺寸)

(3) U Forming (U 彎型)

GSALUB0204G



GSALUB0307G,GSALUB0410G



Unit in mm

Sym.	GSALUB0204G	GSALUB0307G	GSALUB0410G
A (max)	2.80	3.00	4.00
B (max)	5.00	7.00	10.00
C (min)	3.60	3.60	3.60
F	6 ~ 15	10 ~ 20	12.5 ~ 20
W $\pm 0.05$	0.50 $\varnothing$	0.50 $\varnothing$	0.65 $\varnothing$

♣Design as Customer's Requested Specifications. (可依客戶特殊需求設計)

# Fixed Inductors (Axial Lead Type)

## GSAL0204G

Electrical Characteristics for GSAL0204G Series [ GSAL0204G 系列電子特性規格 ]

Part Number 產品料號	Inductance ( $\mu$ H) 電感值(L)	Q (min) 品質因數	Freq. (MHz) 測試頻率	SRF(MHz) (min) 共振頻率	DCR( $\Omega$ ) (max) 直流阻抗	IDC(mA) (max) 定格電流
GSAL□□0204G-R10M	0.10	35	25.2	300	0.180	700
GSAL□□0204G-R12M	0.12	35	25.2	300	0.200	660
GSAL□□0204G-R15M	0.15	35	25.2	300	0.220	620
GSAL□□0204G-R18M	0.18	35	25.2	300	0.240	600
GSAL□□0204G-R22M	0.22	35	25.2	150	0.400	400
GSAL□□0204G-R27M	0.27	35	25.2	150	0.430	380
GSAL□□0204G-R33M	0.33	35	25.2	150	0.480	370
GSAL□□0204G-R39M	0.39	35	25.2	150	0.510	350
GSAL□□0204G-R47M	0.47	35	25.2	150	0.560	330
GSAL□□0204G-R56M	0.56	35	25.2	150	0.610	320
GSAL□□0204G-R68M	0.68	35	25.2	150	0.670	310
GSAL□□0204G-R82M	0.82	35	25.2	150	0.740	290
GSAL□□0204G-1R0K	1.00	35	25.2	150	0.800	270
GSAL□□0204G-1R2K	1.20	40	7.96	110	0.900	260
GSAL□□0204G-1R5K	1.50	40	7.96	70	1.000	250
GSAL□□0204G-1R8K	1.80	40	7.96	60	1.100	240
GSAL□□0204G-2R2K	2.20	40	7.96	45	1.200	230
GSAL□□0204G-2R7K	2.70	40	7.96	40	1.300	220
GSAL□□0204G-3R3K	3.30	40	7.96	38	1.400	210
GSAL□□0204G-3R9K	3.90	40	7.96	36	1.500	200
GSAL□□0204G-4R7K	4.70	40	7.96	32	1.700	190
GSAL□□0204G-5R6K	5.60	40	7.96	30	1.900	180
GSAL□□0204G-6R8K	6.80	40	7.96	28	2.000	175
GSAL□□0204G-8R2K	8.20	40	7.96	26	2.200	165
GSAL□□0204G-100K	10.00	40	7.96	24	2.500	160
GSAL□□0204G-120K	12.00	40	2.52	22	2.500	150
GSAL□□0204G-150K	15.00	40	2.52	20	2.800	145
GSAL□□0204G-180K	18.00	40	2.52	18	3.100	140
GSAL□□0204G-220K	22.00	40	2.52	17	3.400	100
GSAL□□0204G-270K	27.00	40	2.52	16	4.300	80
GSAL□□0204G-330K	33.00	40	2.52	14	4.700	75
GSAL□□0204G-390K	39.00	40	2.52	13	5.200	74
GSAL□□0204G-470K	47.00	40	2.52	12	5.800	70
GSAL□□0204G-560K	56.00	40	2.52	11	6.400	68
GSAL□□0204G-680K	68.00	40	2.52	10	7.200	64
GSAL□□0204G-820K	82.00	40	2.52	9.5	11.000	46
GSAL□□0204G-101K	100.00	40	2.52	9.0	12.000	44

# Fixed Inductors (Axial Lead Type)

## GSAL0204G

Electrical Characteristics for GSAL0204G Series [ GSAL0204G 系列電子特性規格 ]

Part Number 產品料號	Inductance ( $\mu$ H) 電感值(L)	Q (min) 品質因數	Freq. (MHz) 測試頻率	SRF(MHz) (min) 共振頻率	DCR( $\Omega$ ) (max) 直流阻抗	IDC(mA) (max) 定格電流
GSAL□□0204G-121K	120.00	40	0.796	8.0	13.000	42
GSAL□□0204G-151K	150.00	40	0.796	6.0	16.000	39
GSAL□□0204G-181K	180.00	40	0.796	5.0	18.000	37
GSAL□□0204G-221K	220.00	40	0.796	5.0	20.000	35
GSAL□□0204G-271K	270.00	40	0.796	4.6	25.000	25
GSAL□□0204G-331K	330.00	40	0.796	4.2	30.000	25
GSAL□□0204G-391K	390.00	40	0.796	3.8	34.000	25

※Operating Temp. :  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

※Storage Temperature&Humidity :  $\leq 40^{\circ}\text{C}$  & 70% RH maximum

# Fixed Inductors (Axial Lead Type)

## GSAL0307G

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

Part Number 產品料號	Inductance ( $\mu$ H) 電感值(L)	Q (min) 品質因數	Freq. (MHz) 測試頻率	SRF(MHz) (min) 共振頻率	DCR( $\Omega$ ) (max) 直流阻抗	IDC(mA) (max) 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 產品料號	Inductance ( $\mu$ H) 電感值(L)	Q (min) 品質因數	Freq. (MHz) 測試頻率	SRF(MHz) (min) 共振頻率	DCR( $\Omega$ ) (max) 直流阻抗	IDC (mA) (max) 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

※Operating Temp. :  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

※Storage Temperature&Humidity :  $\leq 40^{\circ}\text{C}$  & 70% RH maximum

# Fixed Inductors (Axial Lead Type)

## GSAL0410G

Electrical Characteristics for GSAL0410G Series [ GSAL0410G 系列電子特性規格 ]

Part Number 產品料號	Inductance ( $\mu$ H) 電感值(L)	Q (min) 品質因數	Freq. (MHz) 測試頻率	SRF(MHz) (min) 共振頻率	DCR( $\Omega$ ) (max) 直流阻抗	IDC(mA) (max) 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 產品料號	Inductance ( $\mu$ H) 電感值(L)	Q (min) 品質因數	Freq. (MHz) 測試頻率	SRF(MHz) (min) 共振頻率	DCR( $\Omega$ ) (max) 直流阻抗	IDC(mA) (max) 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

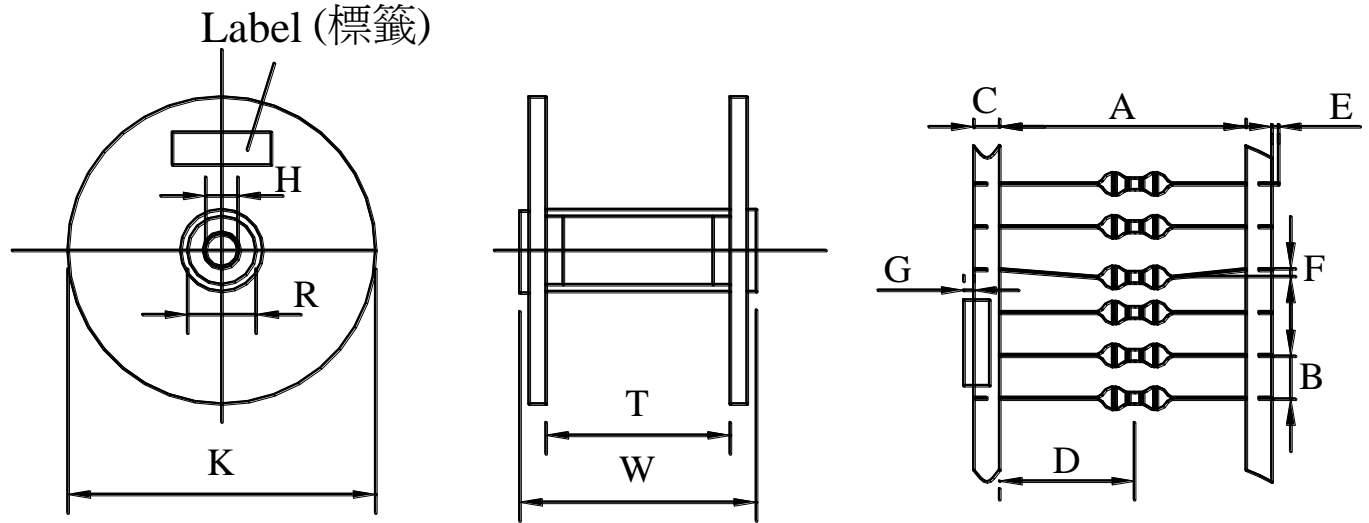
※Operating Temp. :  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$

※Storage Temperature&Humidity :  $\leq 40^{\circ}\text{C}$  & 70% RH maximum

# 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
A	52.00 ±1.50	G	1.00 (max)
B	5.00 ±0.50	H	31.50 ±1.0
C	6.00 ±1.00	R	72.00 ±5.0
D	26.00 ±0.75	T	70.00 ±5.0
E	0.80 (max)	W	79.00 ±5.0
F	1.20 (max)	K	340.00 ±5.0

(B) Packing Unit for Reel (捲裝數量)

Item (項目)	GSAL0204G	GSAL0307G	GSAL0410G
Q'TY/ Reel (一捲數量)	5,000 PCS	5,000 PCS	5,000 PCS
GW/Reel (Approx.)(大約一捲總重)	1.4 Kgm	1.6 Kgm	2.5 Kgm
Q'TY/CTN. (一箱數量)	25,000 PCS	25,000 PCS	25,000 PCS
NW/CTN. (Approx.)(大約一箱淨重)	7.0 Kgm	8.0 Kgm	12.5 Kgm
GW/CTN.(Approx.)(大約一箱總重)	9.0 Kgm	10.0 Kgm	14.0 Kgm
Carton Size (mm) (外箱尺寸)	397x397x479	397x397x479	397x397x479

(2) Packing Unit for Bulk (散裝數量)

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