

Power Inductors / Wire Wound type

Series : **G**
 Type : **ELL4FG-A**
ELL4GG
ELL4LG-A



Type ELL4FG-A



Type ELL4GG



Type ELL4LG-A

Features

- Magnetic shielded structure
- Low DC resistance and large current capability
- Shock resistant
- RoHS compliant

Recommended Applications

- DSC, Tablet terminal, Portable game device, DC/DC converter circuit for cellular phone

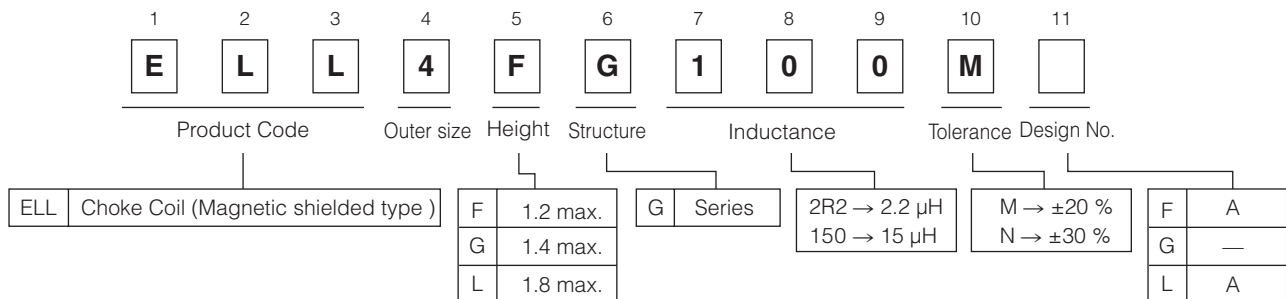
Standard Packing Quantity

- 2,000 pcs./reel (ELL4FG-A/ELL4GG)
- 3,000 pcs./reel (ELL4LG-A)

As for Soldering Conditions and Safety Precautions,

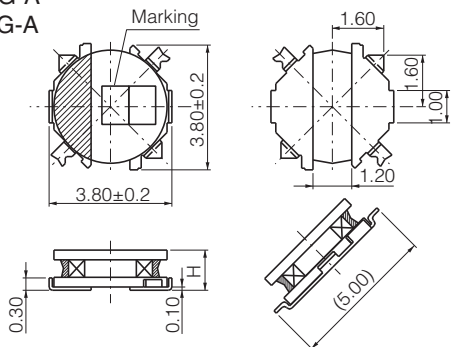
Please see Data Files

Explanation of Part Numbers



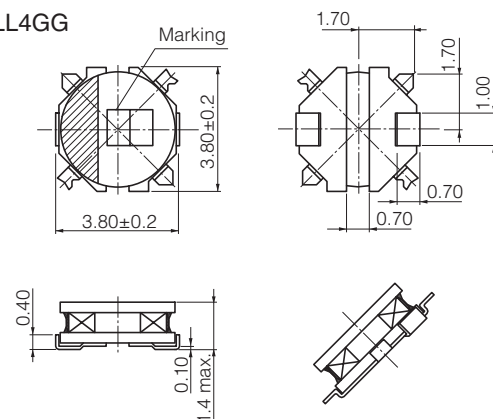
Dimensions in mm (not to scale)

- ELL4FG-A
- ELL4LG-A



| Type | H |
|----------|----------------------|
| ELL4FG-A | 1.1±0.10 (1.20 max.) |
| ELL4LG-A | 1.80 max. |

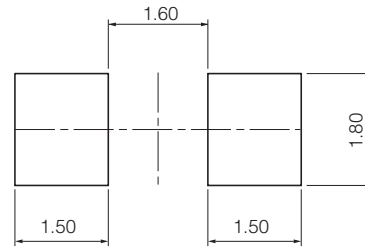
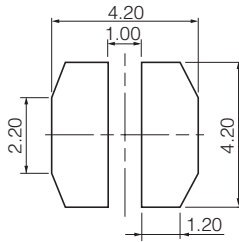
- ELL4GG



Recommended land patterns in mm (not to scale)

- ELL4FG-A
- ELL4LG-A

- ELL4GG



Standard Parts

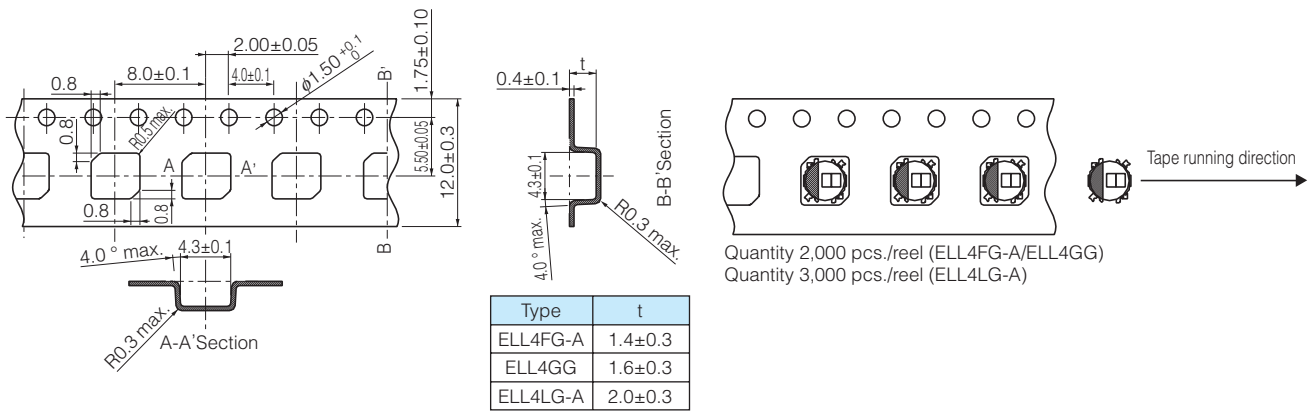
| Series | Part No. | Inductance (100 kHz) | | R _{DC} (at 20 °C) | | Saturation Rated Current*1 (mA max.) | Temperature Rise Current*2 (mA max.) | Marking |
|-----------------|-------------|-------------------------|-------|-------------------------------|-------|--|--|---------|
| | | (μH) | Tol. | (mΩ) | Tol. | | | |
| Series 4FG-A | ELL4FG1R0NA | 1.0 | ±30 % | 45 | ±20 % | 1900 | 1950 | 01 |
| | ELL4FG1R5NA | 1.5 | | 60 | | 1600 | 1700 | 06 |
| | ELL4FG2R0NA | 2.0 | | 70 | | 1300 | 1550 | 10 |
| | ELL4FG3R3NA | 3.3 | | 110 | | 1100 | 1220 | 16 |
| | ELL4FG4R7NA | 4.7 | | 160 | | 1000 | 1000 | 21 |
| | ELL4FG6R8NA | 6.8 | ±20 % | 220 | | 800 | 860 | 26 |
| | ELL4FG100MA | 10.0 | | 290 | | 700 | 750 | 31 |
| | ELL4FG150MA | 15.0 | | 480 | | 600 | 580 | 33 |
| | ELL4FG220MA | 22.0 | | 620 | | 420 | 500 | 36 |
| | ELL4FG330MA | 33.0 | | 1060 | | 360 | 400 | 39 |
| ELL4FG470MA | 47.0 | 1600 | 290 | 330 | 51 | | | |
| Series 4GG | ELL4GG1R2N | 1.2 | ±30 % | 50 | ±20 % | 2400 | 1900 | 03 |
| | ELL4GG1R8N | 1.8 | | 71 | | 1900 | 1550 | 09 |
| | ELL4GG2R2N | 2.2 | | 88 | | 1700 | 1400 | 11 |
| | ELL4GG3R3N | 3.3 | | 110 | | 1500 | 1200 | 16 |
| | ELL4GG3R9N | 3.9 | | 120 | | 1400 | 1150 | 19 |
| | ELL4GG4R7N | 4.7 | | 160 | | 1200 | 1000 | 21 |
| | ELL4GG5R6N | 5.6 | | 170 | | 1100 | 970 | 23 |
| | ELL4GG6R8N | 6.8 | | 200 | | 1050 | 930 | 26 |
| | ELL4GG8R2N | 8.2 | 220 | 1000 | | 870 | 29 | |
| | ELL4GG100M | 10.0 | ±20 % | 250 | | 900 | 770 | 31 |
| | ELL4GG120M | 12.0 | | 380 | | 800 | 650 | 32 |
| | ELL4GG150M | 15.0 | | 500 | | 700 | 580 | 33 |
| | ELL4GG220M | 22.0 | | 640 | | 600 | 500 | 36 |
| | ELL4GG330M | 33.0 | | 980 | | 450 | 400 | 39 |
| ELL4GG470M | 47.0 | 1250 | | 400 | 350 | 51 | | |
| ELL4GG101M | 100.0 | 2400 | 290 | 250 | 56 | | | |
| Series 4LG-A | ELL4LG1R0NA | 1.0 | ±30 % | 43 | ±20 % | 2200 | 1900 | 01 |
| | ELL4LG1R5NA | 1.5 | | 48 | | 1700 | 1800 | 06 |
| | ELL4LG2R2NA | 2.2 | | 55 | | 1500 | 1700 | 11 |
| | ELL4LG2R7NA | 2.7 | | 63 | | 1400 | 1550 | 13 |
| | ELL4LG3R3NA | 3.3 | | 72 | | 1300 | 1450 | 16 |
| | ELL4LG4R7NA | 4.7 | ±20 % | 90 | | 1100 | 1300 | 21 |
| | ELL4LG6R2NA | 6.2 | | 140 | | 930 | 1100 | 25 |
| | ELL4LG100MA | 10.0 | | 200 | | 800 | 950 | 31 |
| | ELL4LG150MA | 15.0 | | 300 | | 620 | 730 | 33 |
| | ELL4LG220MA | 22.0 | | 390 | | 550 | 640 | 36 |
| | ELL4LG330MA | 33.0 | | 610 | | 430 | 510 | 39 |
| | ELL4LG470MA | 47.0 | ±20 % | 920 | | 360 | 410 | 51 |
| | ELL4LG680MA | 68.0 | | 1300 | | 270 | 350 | 53 |
| | ELL4LG101MA | 100.0 | | 2200 | | 250 | 260 | 56 |
| ELL4LG151MA | 150.0 | 3000 | | 220 | 220 | 59 | | |

*1 Saturation Rated Current : This DC current which causes a 30 % inductance reduction from its nominal value.

*2 Temperature Rise Current : This indicates the value of current when temperature rise dt/t= 40 °C (at 20 °C).

Design and specifications are each subject to change without notice. Ask factory for the current technical specifications before purchase and/or use.
Should a safety concern arise regarding this product, please be sure to contact us immediately.

Embossed Carrier Tape Dimensions in mm (not to scale)



⚠ Safety Precautions

(Common precautions for Power Inductors / Wire Wound type)

- When using our products, no matter what sort of equipment they might be used for, be sure to make a written agreement on the specifications with us in advance. The design and specifications in this catalog are subject to change without prior notice.
 - Do not use the products beyond the specifications described in this catalog.
 - This catalog explains the quality and performance of the products as individual components. Before use, check and evaluate their operations when installed in your products.
 - Install the following systems for a failsafe design to ensure safety if these products are to be used in equipment where a defect in these products may cause the loss of human life or other significant damage, such as damage to vehicles (automobile, train, vessel), traffic lights, medical equipment, aerospace equipment, electric heating appliances, combustion/gas equipment, rotating equipment, and disaster/crime prevention equipment.
- *Systems equipped with a protection circuit and a protection device
*Systems equipped with a redundant circuit or other system to prevent an unsafe status in the event of a single fault

⚠ Precautions for use

1. Operation range and environments

- ① These products are designed and manufactured for general and standard use in general electronic equipment (e.g. AV equipment, home electric appliances, office equipment, information and communication equipment)
- ② These products are not intended for use in the following special conditions. Before using the products, carefully check the effects on their quality and performance, and determine whether or not they can be used.
 - In liquid, such as water, oil, chemicals, or organic solvent
 - In direct sunlight, outdoors, or in dust
 - In salty air or air with a high concentration of corrosive gas, such as Cl₂, H₂S, NH₃, SO₂, or NO₂
 - In an environment where these products cause dew condensation

2. Handling

- ① Do not bring magnets or magnetized materials close to the product. The influence of their magnetic field can change the inductance value.
- ② Do not apply strong mechanical shocks by either dropping or collision with other parts. Excessive shock can damage the part.

3. Washing of board

Kindly consult the Technical department before washing of the PWB with any cleansing agent, and provide the washing condition.

4. Resoldering with a soldering iron

The temperature of the tip of the soldering iron should be 360 °C or less, 4 seconds.
And resoldering with a soldering iron should be limited to 1 time, and after that should be cooling these.

5. Mounting side

External force must be less than 5.0 [N] : while mounting.

6. Storage conditions

Normal temperature (-5 to 35 °C), normal humidity (85 % RH max.), shall not be exposed to direct sunlight and harmful gases and care should be taken so as not to cause dew.

<Package markings>

Package markings include the product number, quantity, and country of origin.
In principle, the country of origin should be indicated in English.