

CUSTOMER \_\_\_\_\_

CUSTOMER' S P/N \_\_\_\_\_

DESCRIPTION DIP Inductor

SGTE PART NO. GPDG1715Y-220M

SAMPLE NO. S22082525 REVISION NO. A1 DATE 2022/8/25

## SPECIFICATION FOR APPROVAL

FULLY APPROVED	REVISE APPROVED

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# SPECIFICATION

**RoHS  
COMPLIANT**

<b>Customers Part Number</b>	<b>Item Name</b>	<b>Date</b>	
	DIP Inductor	2022/8/25	
<b>Gan Tong Part NO.</b>	<b>Sample NO.</b>	<b>Revision No.</b>	A0
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Version	Change history	Before the change	After the change	Release date
A0	NEW	—	—	2022/8/25
A1	更新产品尺寸及印字位置	产品尺寸、印字方向错误	修改产品尺寸及印字位置	2024/4/17

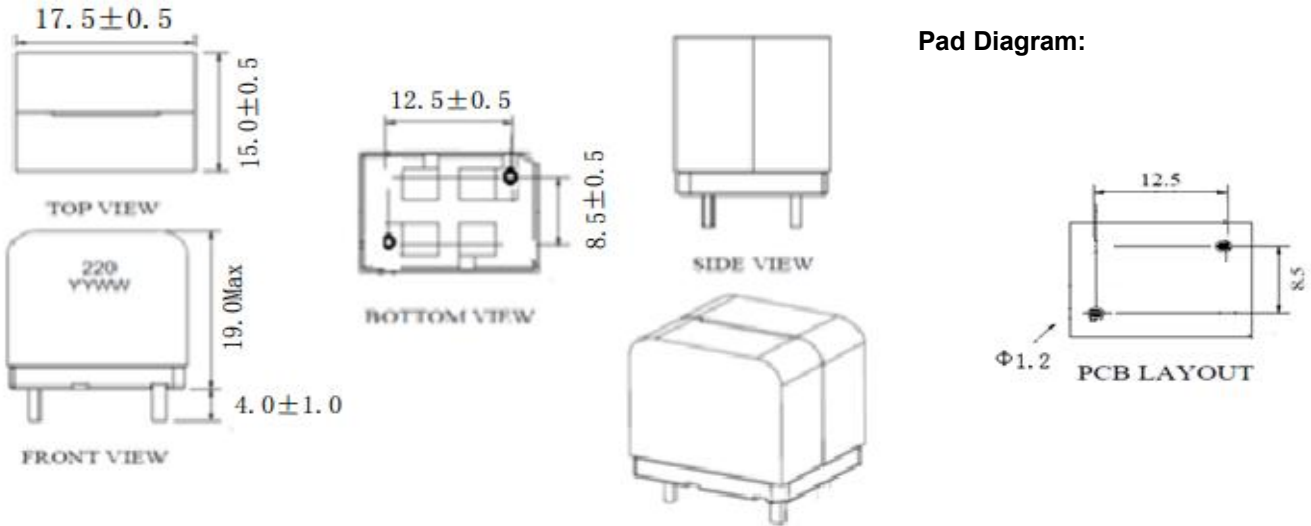
<b>DRAWN BY</b>	<b>CHECKED BY</b>	<b>APPROVED BY</b>
汤世光	王康	田一

# SPECIFICATION

**RoHS  
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Customers Part Number	Item Name	Date	
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## Outline Dimensions (mm)



## ELECTRICAL REQUIREMENTS:

PARAMETER	SPECIFICATION	CONDITION	TEST INSTRUMENTS
L	22±20% uH	1KHz/0.25V	■CH1062 ■CH502BC ■CH1062&Chroma1320
DCR	20 max mΩ	@ 25°C	
I-sat	14.0 A	≧ 80% L0A	
Irms	6.6 A	ΔT ≦ 40°C	

### 注释:

- ◆ All test data is based on 25°C ambient.
- ◆ Isat: DC current(A)that will cause L0 to drop approximately 20%.
- ◆ Irms: DC current(A)that will cause an approximate ΔT40°C.
- ◆ Operating temperature range: -40°C~+125°C.
- ◆ The part temperature (ambient + temp.rise) of the product should not exceed 125°C in bad working condition. Circuit design component placement, PWB trace size and thickness,airflow and other cooling provisions all affect the part temperature.part temperature should be verified in the final application.

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## SOLDERING CONDITIONS

Figure 1. Re-flow Soldering

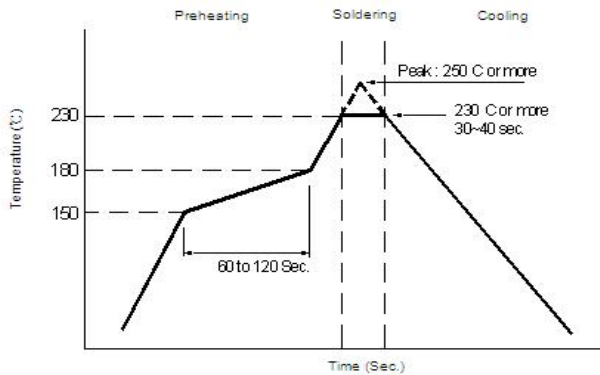
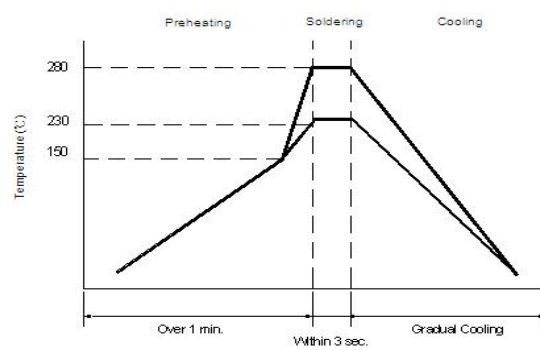


Figure 2. Hand Soldering



## Reliability and Testing Conditions/Surface Mount Type Power Inductors

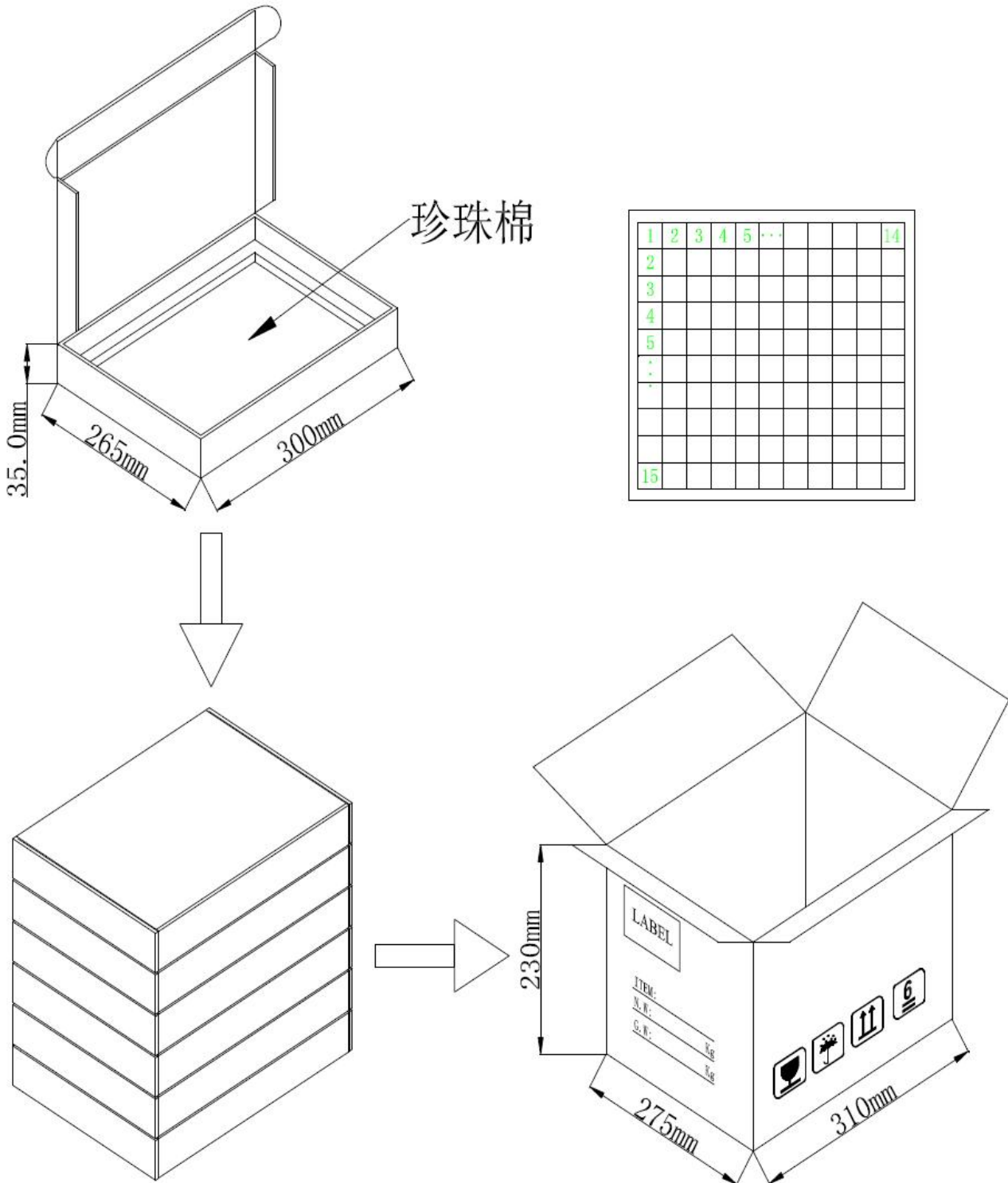
Item	Specification	Conditions															
Solderability	More than 90% of the terminal electrode should be covered with solder.																
Solder Heat Resistance	Inductance within ±20% of initial value and appearance shall not break.																
Heat resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in 125±5°C and 2 hour drying under normal condition.															
Cold resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in -40±2°C and 2 hour drying under normal condition.															
Thermal shock	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 10 cycles of following condition. <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Times (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±2</td> <td>30</td> </tr> <tr> <td>2</td> <td>Room Temperature</td> <td>Within 3</td> </tr> <tr> <td>3</td> <td>125±5</td> <td>30</td> </tr> <tr> <td>4</td> <td>Room Temperature</td> <td>Within 3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Times (min.)	1	-40±2	30	2	Room Temperature	Within 3	3	125±5	30	4	Room Temperature	Within 3
Step	Temperature (°C)	Times (min.)															
1	-40±2	30															
2	Room Temperature	Within 3															
3	125±5	30															
4	Room Temperature	Within 3															
Humidity Resistance	Inductance within ±20% of initial value. No disconnection or short circuit. Appearance shall not break.	After 500±12 hours in 40±2°C and 90 to 95% humidity, and 2 hour drying under normal condition.															
* Vibration Test	Inductance within ±20% of initial value and appearance shall not break.	After vibration for 1hour, In each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P Amplitudes.															

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## PACKAGING



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## PACKAGING

### 注意事项Care Notes :

#### 1、使用注意事项Care notes for Use:

##### (1)存储条件Storage Condition:

温度25~35℃, 湿度45~85%RH Temperature: 25 to 35℃, Humidity: 45% to 85% RH.

##### (2)使用温度Working Temperature:

a.最低温度: -40℃产品环境温度。

Minimum Temperature: -55℃ Ambient temperature of power choke coil.

b.最高温度: +125℃含环境温度及产品温升。

Maximum Temperature : +125℃ The value of temperature including ambient of the transformer and temperature rise of power choke coil.

c.在可靠性测试中, 本品可在-40℃~+125℃中正常使用。

There is not a problem from -40℃ ~ +125℃ in a reliability test.

d.尽管如此, 本品不承诺UL温度等级保证书中保证条款(美国保险商实验所)。

However, this does not fully apply the guaranteed temperature on UL.

##### (3)跌落Drop:

本产品受到跌落等机械外力损伤时, 产品特性可能会变差(因为损伤到线圈等)。

The dropping or mechanical stress of power choke coil may decrease the characteristics for the coil bobbin may be damaged. Such damaged coils are not suggested to use.

#### 2、安全注意事项 Safety Caution:

##### (1)预防不正常条件 Provision to Abnormal Condition:

在过载、短路、开路等不正常条件下, 本电感产品无任何自我保护功能。

请确保成品使用中不含火、高压、绝缘等危险使用条件, 并提供在不正常条件下的保护作用装置或电路。

This power choke coil itself does not have any protective function in abnormal condition such as overload, short-circuit, open-circuit conditions, etc. Therefore, it shall be confirmed as the end product where there is no risk of smoking, Fire, dielectric withstand voltage, insulation resistance, etc. in abnormal conditions to provide protective devices and/or protection circuit in the end product.

##### (2)温升Temperature Rise:

电感的温升受成品结构影响, 强烈建议您于成品后再次确认电感温升是否符合规定温度等级要求。

Temperature rise of power choke coil depends on the installation condition on end products.

It shall be confirmed on the actual end product that temperature rise of power choke coil is in the limit of specified temperature class.

##### (3)防水Waterproof:

本扼流电感产品绝缘性会因工作环境潮湿而下降, 因此本产品禁止应用在有水, 咖啡及其它液体存在的潮湿环境中。

This power choke coil must not be used in wet condition by water, coffee or any liquid because insulation strength becomes very low in the very condition.