

1. Part No. Expression:

W Q 1 2 2 5 - 1 0 1 J

(a) (b) (c) (d)

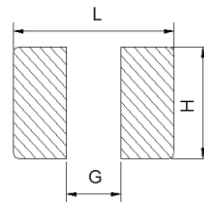
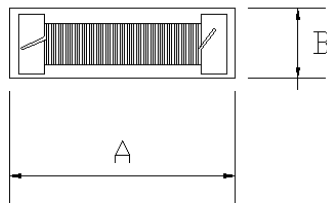
(a) Series Code

(c) Inductance Code

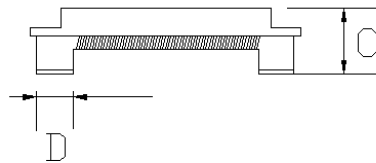
(b) Dimension Code

(d) Tolerance Code

2. Configuration & Dimensions:



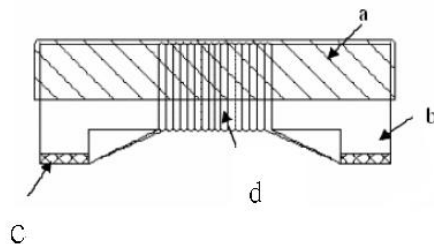
Recommended PCB layout



Unit: mm

| A | B | C | D | L | G | H |
|----------|---------|---------|----------|-----------|----------|----------|
| 11.6±0.3 | 3.8±0.3 | 2.5±0.3 | 1.5 Ref. | 11.6 Ref. | 8.0 Ref. | 3.6 Ref. |

3. Material List:



(a) Upper Plate

(b) Core

(c) Termination

(d) Wire

NOTE: Specifications subject to change without notice. Please check our website for latest information.



4. General Specification:

- (a) Reliability test for this part meets AEC-Q200 standard
- (b) Operating Temp. : -55°C to +125°C(Including self - temperature rise)
- (c) Storage Temp. : -55°C to +125°C (on board)
- (d) Humidity Range: 85 ± 3% RH
- (e) Storage Condition (Component in its packaging)
 - i) Temperature: Less than 40°C
 - ii) Humidity : 60% RH

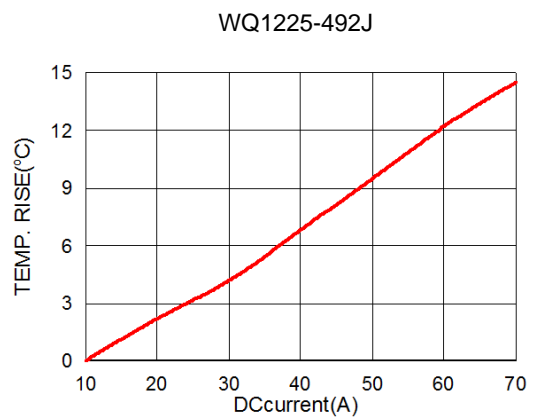
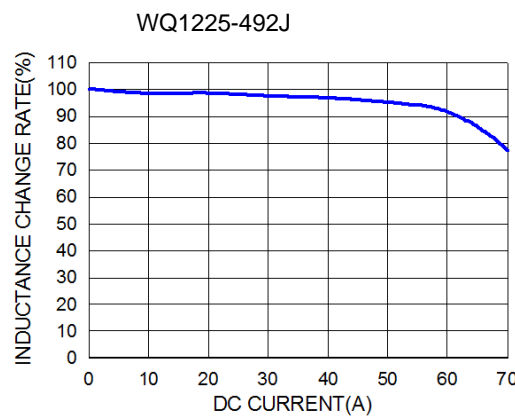
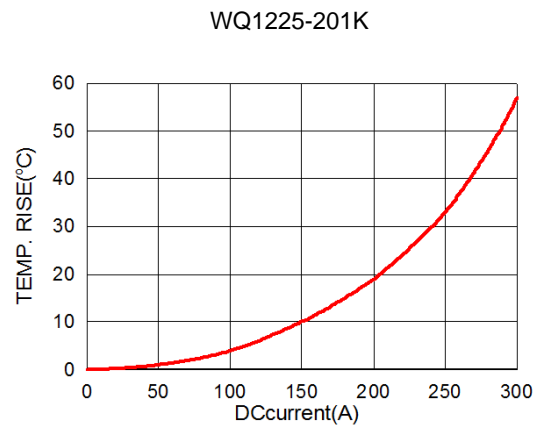
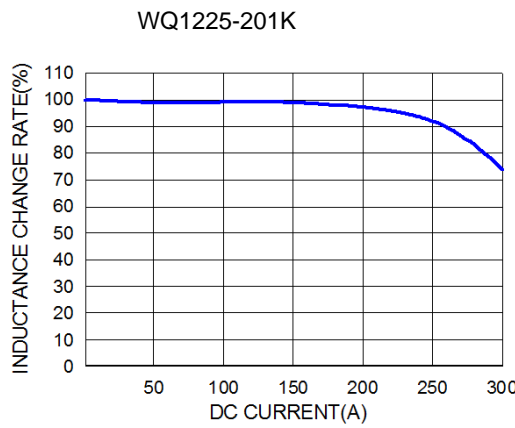
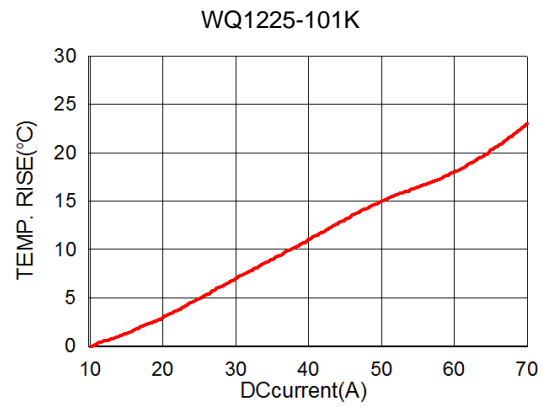
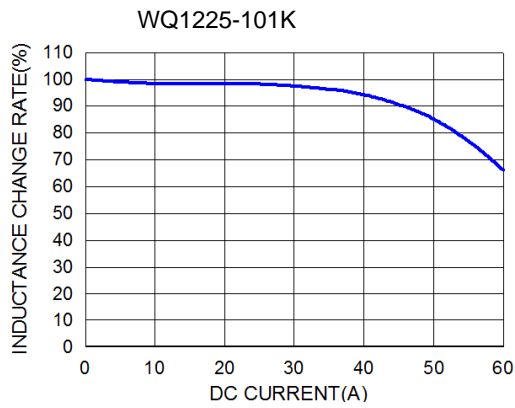
5. Electrical Characteristics:

| Part Number | Inductance (uH) | Test Frequency (Hz) | Q Min. | DCR (Ω) Max. | Rated Current (mA) Max. | SRF (MHz) Min. |
|-------------|-----------------|---------------------|--------|--------------|-------------------------|----------------|
| WQ1225-101K | 101±10% | 0.1V/125K | 20 | 3.0 | 300 | 20 |
| WQ1225-201K | 200±10% | 0.1V/125K | 20 | 6.0 | 200 | 2.0 |
| WQ1225-492J | 4900±5% | 0.1V/125K | 20 | 50 | 50 | 0.34 |
| WQ1225-722J | 7200±5% | 0.1V/125K | 40 | 40 | 50 | 0.30 |

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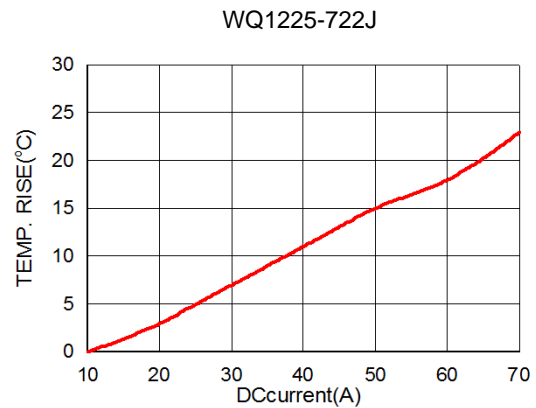
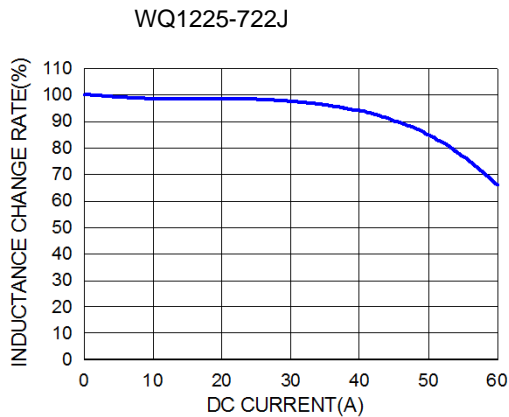


6. Characteristics Curves:



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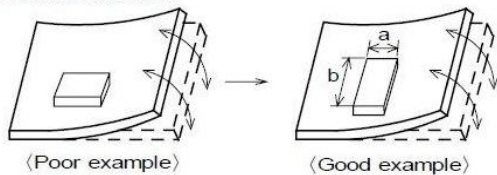
7. Soldering:

7-1. Attention regarding P.C.B. bending

The following shall be considered when designing P.C.B.'S

(a) P.C.B. shall be designed so that products are not subjected to the mechanical stress for board warpage.

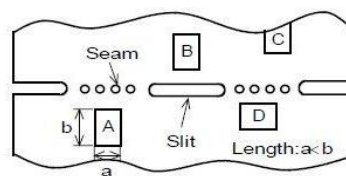
<Products direction>



Products shall be located in the sideways direction (Length: $a < b$) to against the mechanical stress.

(b) Products location on P.C.B.

Products (A,B,C,D) shall be located carefully to prevent mechanical stress when warping the board. Products may be subjected to the mechanical stress in the order of $A > C > B \approx D$.



7-2. Soldering

Mildly activated rosin fluxes are preferred. Our terminations are suitable for all re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

7-2.1 Solder Re-flow

Recommended temperature profiles for re-flow soldering in Figure 1.

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7-2.1 Soldering Iron (Figure 2)

Products attachment with soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended.

Note :

- a) Preheat circuit and products to 150°C.
- b) 355°C tip temperature (Max.)
- c) Never contact the ceramic with the iron tip
- d) 1.0mm tip diameter (Max.)
- e) Use a 20 watt soldering iron with tip diameter of 1.0mm
- f) Limit soldering time to 4~5 sec.

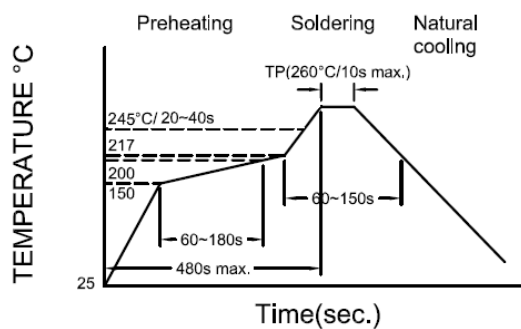


Figure 1. : Re-flow Soldering time 3 times max

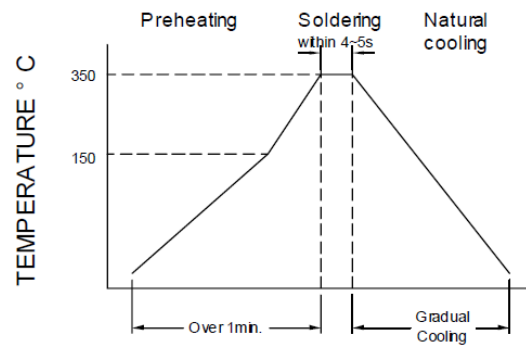


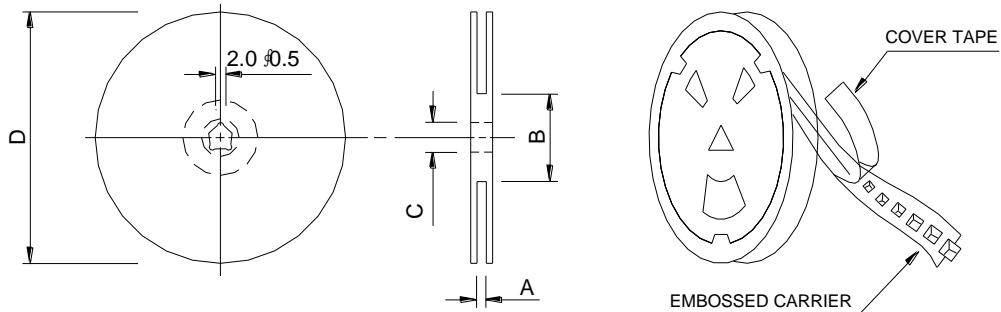
Figure 2. : Iron Soldering time 1 times max

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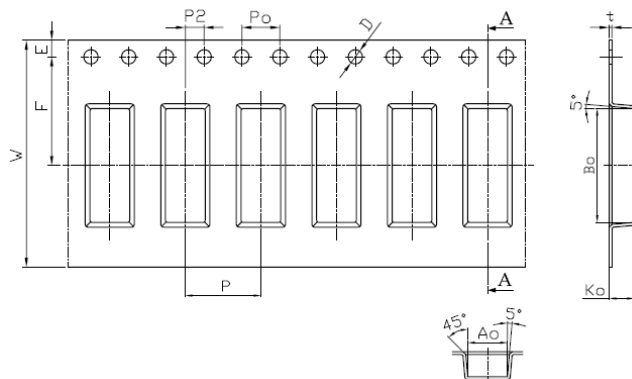
8. Packaging Information:

8-1 Reel Dimension



| Type | A(mm) | B(mm) | C(mm) | D(mm) |
|----------|----------|-----------|----------|-------|
| 13"x24mm | 24.0±0.5 | 100.0±2.0 | 13.5±0.5 | 330 |

8-2 Tape Dimension



| Size | W(mm) | P(mm) | E(mm) | F(mm) | P2(mm) | D(mm) |
|--------|----------|-----------|-----------|----------|-----------|----------|
| | | 24.00±0.3 | 8.00±0.1 | 1.75±0.1 | 11.50±0.1 | 2.00±0.1 |
| W1225F | P0(mm) | A0(mm) | Bo(mm) | Ko(mm) | t(mm) | |
| | 4.00±0.1 | 4.20±0.1 | 12.05±0.1 | 2.65±0.1 | 0.35±0.05 | |

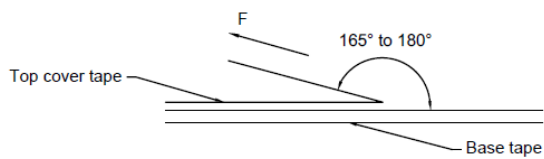
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8-3 Packaging Quantity

| | |
|-----------|--------|
| Chip Size | WQ1225 |
| Chip/Reel | 500 |

8-4 Tearing Off Force



The force for tearing off cover tape is 10 to 80 grams in the arrow direction under the following conditions.

| Room Temp. (°C) | Room Humidity (%) | Room atm (hPa) | Tearing Speed mm/min |
|-----------------|-------------------|----------------|----------------------|
| 5~35 | 45~85 | 860~1060 | 300 |

Application Notice:

1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 12 months from the time of delivery.
- b) The packaging material should be kept where no chlorine or sulfur exists in the air.

2. Transportation:

- a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- b) Vacuum pick up is strongly recommended for individual components.
- c) Bulk handling should ensure that abrasion and mechanical shock are minimized.

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