

## ■ Features

- High rated current for circuit design.
- Design by special lead wire to prevent open circuit failure.
- Low cost with rugged reliability and performance fixed inductor.
- Operating temperature:  $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$ .

## ■ Applications

- TVs and Audio equipment.
- Notebook, Inkjet printer, Copying machine, Display monitor, Cellular phone.
- Switching Power Supply.
- Excellent as DC/DC converter boost or buck inductor.

## ■ Product Identification

$\frac{\text{YDPK}}{(1)}$ 
 $\frac{\square\square\square\square}{(2)}$ 
 $-\frac{\square\square\square}{(3)}$ 
 $\frac{\square}{(4)}$

(1) : Type

(2) : Dimensions

(3) : Inductance value

(4): Inductance Tolerance: N=±30%, M=±20%, K=±10%, J=±5%

## ■ Shapes and Dimensions (Unit: mm)



| TYPE     | A Max. | B Max. | C       | D       | E       | F       |
|----------|--------|--------|---------|---------|---------|---------|
| YDPK0810 | 13.0   | 10.0   | 3.6±0.5 | 3.6±0.5 | 5.0±0.5 | 0.6±0.1 |

## ■ Electrical specification

| Part Number   | Inductance<br>(uH) | Test<br>Frequency | Max.DCR<br>(Ω) | Isat<br>(A) |
|---------------|--------------------|-------------------|----------------|-------------|
| YDPK0810-821K | 820±10%            | 1KHz/0.25V        | 1.80           | 0.25        |

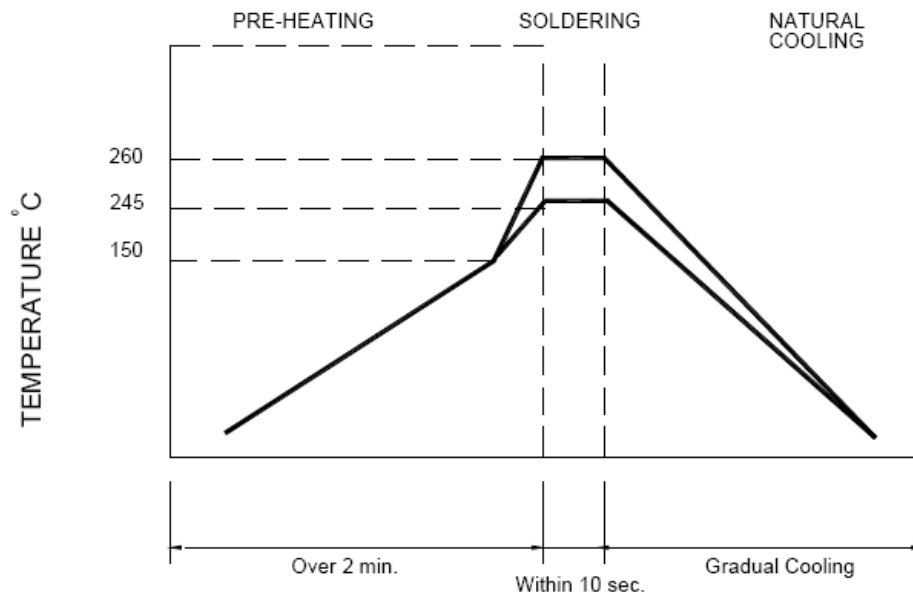
※ Design as Customer's Requested Specifications.

## ■ Reliability test

| NO. | Items                             | Test Methods                                                                                                                        | Requirements                                                                                  |
|-----|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| 1   | Lead terminal strength            | A static pulling force of 5N in a direction parallel to the lead terminals for 60±5 seconds.                                        | No terminal breakage or loosening.                                                            |
| 2   | Resistance to soldering heat test | Fix the samples on a 1.6mm thickness PCB, then dip the sample leads into a soldering bath of 270±5°C up to the PCB for 5±1 seconds. | No significant abnormality in appearance. Deviation relative to initial value: L: Within ±10% |
| 3   | Solder ability test               | Immerse the terminal in flux for 5 seconds. Then dip the terminal into a soldering bath of 245±5°C for 2±0.5 seconds.               | At least 90% of terminal electrode is covered by new solder.                                  |
| 4   | Humidity test                     | Temperature: 40°C±2°C<br>Humidity: 90%~95%RH<br>Duration: 96±4 Hours                                                                | No significant abnormality in appearance. Deviation relative to initial value: L: Within ±10% |
| 5   | High temperature storage test     | Temperature: 85°C±2°C<br>Duration: 96±4 Hours                                                                                       | No significant abnormality in appearance. Deviation relative to initial value: L: Within ±10% |
| 6   | Low temperature storage test      | Temperature: -25°C±2°C<br>Time: 96±4 Hours                                                                                          | No significant abnormality in appearance. Deviation relative to initial value: L: Within ±10% |
| 7   | Thermal shock test                | First -25±5°C for 30±3 minutes, last 85±5°C 30±3 minutes as 1 cycles. Go through 10 cycles.                                         | No significant abnormality in appearance. Deviation relative to initial value: L: Within ±10% |

## ■ Soldering Conditions

Wave Soldering:



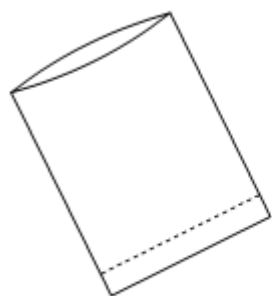
Note:

Never contact the ceramic with the iron tip

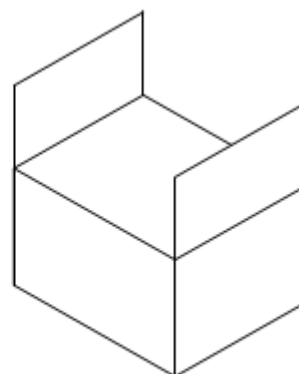
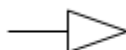
1.0mm tip diameter(max)

## ■ Material list

| NO      | ITEM | DESCRIPTION                   | SUPPLIER | RATING | UL FILE |
|---------|------|-------------------------------|----------|--------|---------|
| 1       | Core | SR53 DR2W 8×10                | SUNRISE  |        |         |
|         |      | OR EQUIVALENT                 |          |        |         |
| 2       | Wire | QA-1 $\phi$ 0.22mm N          | JINYAN   | 155°C  | E238500 |
|         |      | OR EQUIVALENT                 |          |        |         |
| 3       | TUBE | T-2 $\phi$ 8×12.8mm UL(Black) | QUNAITAI | 125°C  | E227336 |
|         |      | OR EQUIVALENT                 |          |        |         |
| 4       | PIN  | CP $\phi$ 0.6mm               | BAICHUAN |        |         |
| REMARK: |      |                               |          |        |         |

**■ Package specification**

PE 袋



| Type     | Quantity(pcs) |            |           | Remark |
|----------|---------------|------------|-----------|--------|
|          | Bag           | Inside box | Outer box |        |
| YDPK0810 | 250           | 2500       | 5000      |        |