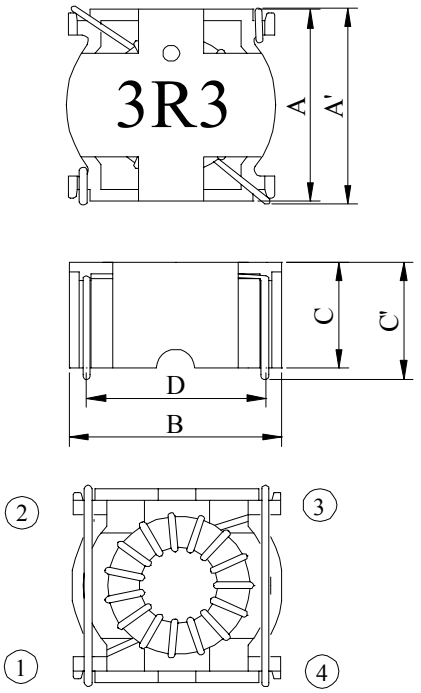
# SPECIFICATION FOR APPROVAL

REF :

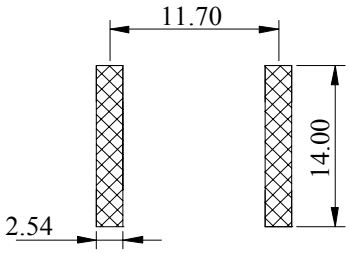


| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅰ . CONFIGURATION & DIMENSIONS :

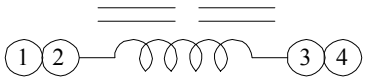


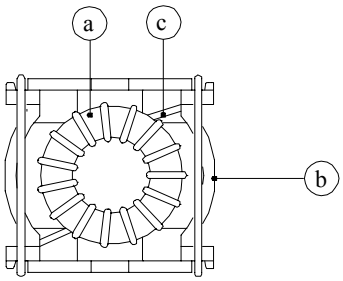

| | | |
|---|---|---|
| A : | 13.80 ± 0.3 | m / m |
| A' : | 14.80 max. | m / m |
| B : | 14.00 ± 0.3 | m / m |
| C : | 7.90 typ. | m / m |
| C' : | 9.20 max. | m / m |
| D : | 11.70 typ. | m / m |




( PCB Pattern )

## Ⅱ . SCHEMATIC DIAGRAM :




## Ⅲ . MATERIALS :

a . Core : Iron toroidal core

b . Case : PPS-R7

c . Wire : Enamelled copper wire ( Class F )

d . Adhesive : Epoxy resin

e . Remark : Products comply with RoHS' requirements

## Ⅳ . GENERAL SPECIFICATION :

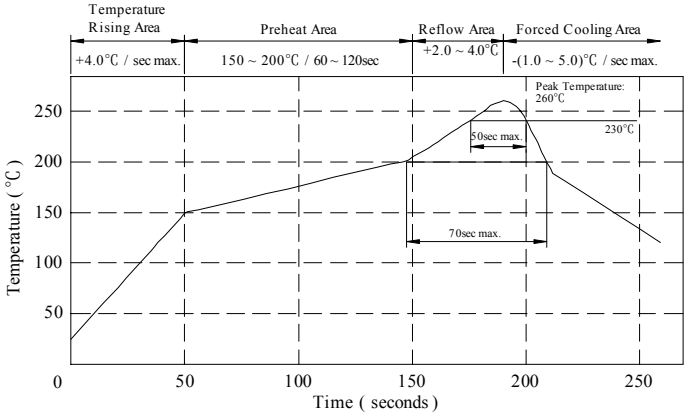
a . Temp. rise : 40℃ typ.

b . Storage Temp. : -40℃ ----+130℃

c . Operating Temp. : -25℃----+130℃

d . Resistance to solder heat : 260℃.10 Secs.

Peak Temp : 260℃ max.
Max time above 230℃ : 50sec max.
Max time above 200℃ : 70sec max.






ABC 千如電子集團 ABC ELECTRONICS GROUP.

# SPECIFICATION FOR APPROVAL



| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅴ . ELECTRICAL CHARACTERISTICS：

| DWG No. | Inductance @10KHz, 0.1 Vrms ( μH ) | RDC(mΩ) ( Each Winding ) | | Irms(A) | Isat(A) |
|---|---|---|---|---|---|
| | | max. | typ. | | |
| ST14093R3ML□-□□□ | 3.30 ± 20% | 14.5 | 11.0 | 7.80 | 10.40 |
| ST14096R8ML□-□□□ | 6.80 ± 20% | 21.0 | 16.0 | 6.20 | 7.20 |
| ST1409220ML□-□□□ | 22.00 ± 20% | 57.0 | 44.0 | 3.80 | 3.50 |

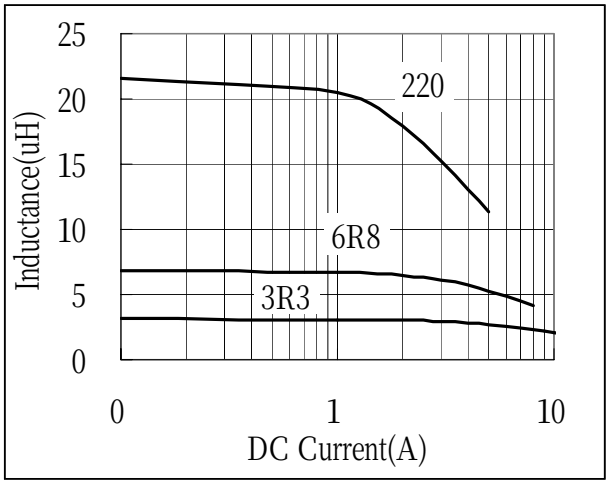
1). □ ：Packaging information … A: Bulk B: Taping Reel

2)."- □□□":Reference code

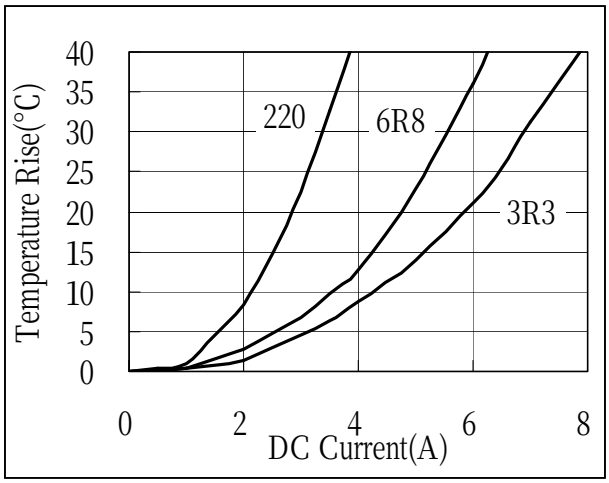
3). Irms base on Temp. rise 40℃ typ.

4). Isat base on △L/L0A=35% typ.

@ Inductance VS. DC Current Curve




@ DC Current VS. Temp. Rise ( △T ) Curve






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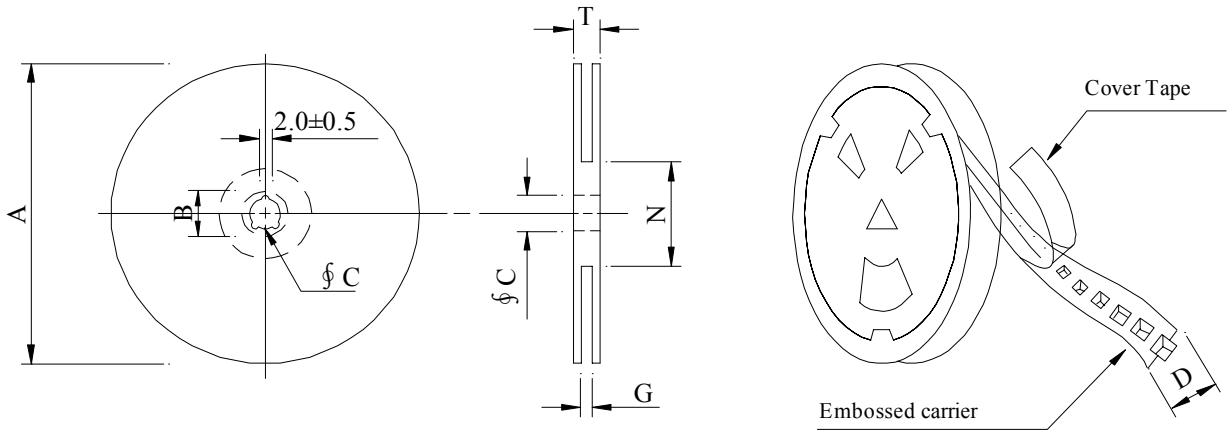
# SPECIFICATION FOR APPROVAL



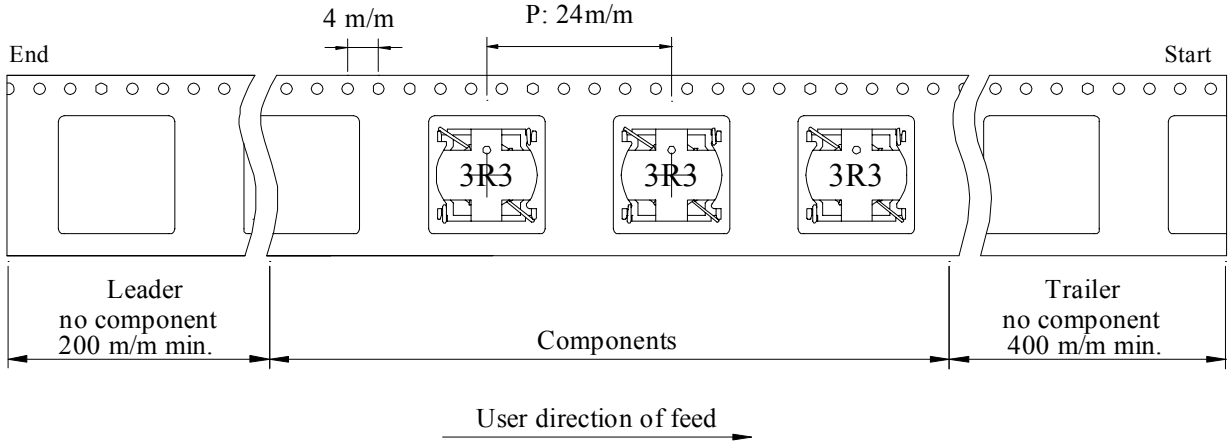
| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅵ．PACKAGING INFORMATION：

( 1 ) Configuration




※Carrier tape width : D




（2） Dimensions : (m/m)

| Style | A | B | C | D | G | N | T |
|---|---|---|---|---|---|---|---|
| 13 - 24 | 330 | 21±0.8 | 13±0.5 | 24 | $26^{+0}$ | $50^{-0}$ | 30.4 |

（3） Q'TY & G.W. Per package :

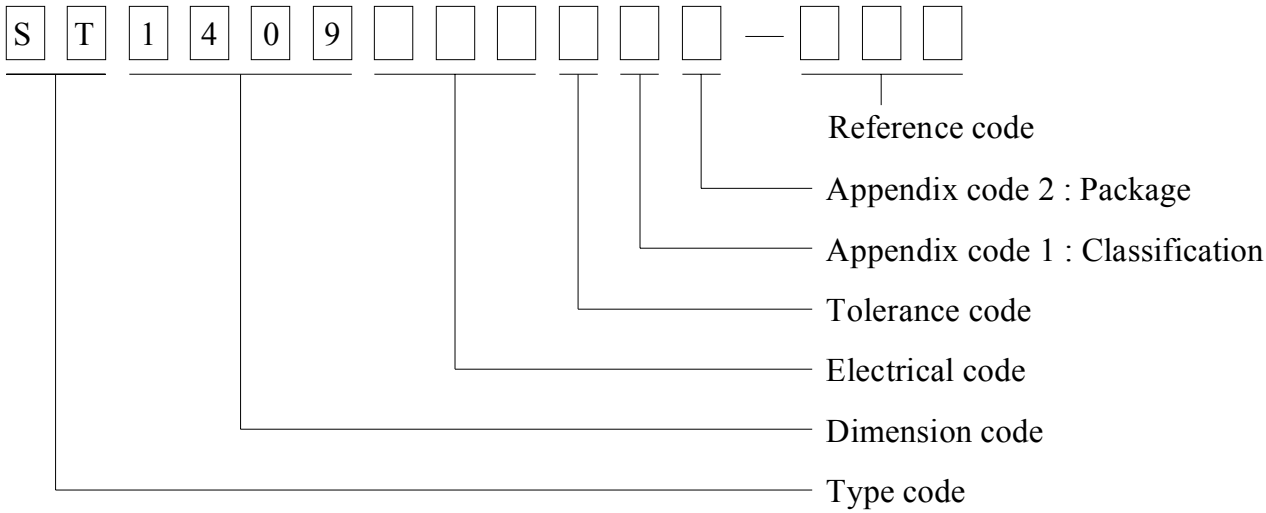
| Type | Inner : Reel | | | Outer : Carton | | |
|---|---|---|---|---|---|---|
| | Q'TY (pcs) | G.W. (gw) | Style | Q'TY (pcs) | G.W. (kg) | Size (cm) |
| ST1409 | 150 | 400 | 13 - 24 | 600 | 3.0 | 40 x 40 x 24 |

# SPECIFICATION FOR APPROVAL



| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

Ⅶ．DWGING NUMBER EXPRESSION：




Appendix code 1：Product Classification

L：Lead Free Standard products comply with RoHS' requirements

1 ~ 9：Lead Free Special products comply with RoHS' requirements

Appendix code 2：Package Information

| Code | Inner Package | Inner Package Q'TY | Remark |
|---|---|---|---|
| A | T.B.D. | T.B.D. | |
| B | T / R ( Reel Package ) | 150 pcs | |

| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅷ . RELIABILITY TEST :

| Test item | Specification | Test condition |
|---|---|---|
| Solderability | More than 90% of the terminal electrode Shall be covered With fresh solder. | Preheat : 150±25°C for 60 seconds<br>Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent<br>Solder temp. : 235±5°C<br>Flux : Rosin<br>Dip time : 4±1 seconds |
| Thermal shock test<br>( Temp. cycle ) | Inductance shall not change more than ±20% | Room temp. / 15 minutes → -25±2 °C / 30 minutes<br>Room temp. / 15 minutes → 85±2 °C / 30 minutes<br>Total : 50 cycles |
| Humidity Resistance test | | Temperature : 40±2°C<br>Humidity : 90 ~ 95%<br>Applied current : Per spec.<br>Time : 500 hours |
| High temp. Resistance test | | Temperature : 80±2°C<br>Applied current : Per spec.<br>Time : 500 hours |

| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅸ . UL CARD :

OBMW2 September 8, 2000

Magnet Wire-Component

JUNG SHING WIRE CO LTD E174837
231 CHUNG CHENG RD, SEC 3 JEN-TEH HSIANG, TAINAN
HSIEN TAIWAN

| Mtl Dsg | Mark Dsg | Coat Typ BC | Coat Typ OC | ANSI Type | Temp Class |
|---|---|---|---|---|---|
| AIW | —— | Polyamideimide | —— | MW81-C | 220 |
| CFUEWB | —— | Polyurethane | —— | MW75C | 130 |
| EIAIW | —— | Polyesterimide | Polyamideimide | MW35C | 200 |
| EILOCKY | —— | Polyesterimide | Polyamide | —— | 180 |
| EILOCKW | —— | Polyesterimide | Modified Epoxy | —— | 200 |
| EIW | —— | Polyesterimide | —— | —— | 220 |
| EIW-2 | —— | Polyesterimide | —— | MW74-C | 200 |
| FL.EILOCKY | —— | Modified Polyester | Polyamide | —— | 155 |
| LSFFW | —— | Polyurethane | —— | MW79-C | 155 |
| LSUEW | —— | Polyurethane | —— | —— | 130 |
| PEW | —— | Polyester | —— | —— | 155 |
| PEY | —— | Polyester | Nylon | MW24-C | 155 |
| SF.FLW | —— | Modified Polyester | —— | MW26C | 155 |
| SF.EIW | —— | Polyesterimide | —— | MW77C | 180 |
| SF.BY@ | —— | Modified Polyester | Nylon | MW27-C | 155 |
| SF.FLY@ | —— | Modified Polyester | Nylon | MW27-C | 155 |
| SF.BLOCKBS | —— | Modified Polyester | Modified Polyamide | —— | 155 |
| SF.EILOCKY# | —— | Polyesterimide | Polyamide | —— | 180 |
| SF.EILOCKBS | —— | Polyesterimide | Modified Polyamide | —— | 180 |
| SF.BW@ | —— | Modified Polyester | —— | MW26C | 155 |
| SFFW | —— | Polyurethane | | MW79 | 155 |

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A not-for-profit organization dedicated to public safety and committed to quality service

| Mtl Dsg | Mark Dsg | Coat Typ BC | Coat Typ OC | ANSI Type | Temp Class |
|---|---|---|---|---|---|
| SFFY | —— | Polyurethane | Polyamide | MW80C | 155 |
| UEW-1 | —— | Polyurethane | —— | MW2-C | 105 |
| UEW-2 | —— | Polyurethane | —— | —— | 130 |
| UEW-4 | —— | Polyurethane | —— | MW75C | 130 |
| UEY | —— | Polyurethane | Nylon | MW28-C | 130 |
| UEY-2 | —— | Polyurethane | Polyamide | MW28-C | 130 |

@-May be suffixed by LZ; # - May be suffixed by LZ, EL or LZI.

LZ - Signifies magned wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signifies base coated magnet wire twisted together and covered with top coat overall.

Marking: Company name or trademarks JSW or 永冠書線 , material designation or marked designation on packaed or reel, and Recognized Component Mark.

See General Information Preceding These Recognitions

For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

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September 8 , 2000

| PROD. NAME | SMD TOROIDAL POWER FILTER | ABC'S DWG NO. | ST1409□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

QMFZ2 Wednesday,January 22, 2003

Component-Plastics
CHEVRON PHILLIPS CHENICAL CO L P E54700

| Mti Dsg | Col | Min Thk mm | UL94 Flame Class | Elec | RTI Imp | Mech Str | HWI | HAI | HVTR | D495 | CTI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Polyphenylene sulfide (PPS), glass reintorced, designated "RYTON", furnished as pellets. | | | | | | | | | | | |
| R-4-230NA | NC | 0.38 | V-0 | 130 | 130 | 130 | — | — | 4 | 5 | 4 |
| | | 0.71 | V-0 | 200 | 200 | 200 | 4 | 1 | 4 | 5 | 4 |
| | | 1.5 | V-0 | 220 | 200 | 220 | 0 | 0 | 4 | 5 | 4 |
| | | 1.8 | 5VA | 220 | 200 | 220 | — | — | 4 | 5 | 4 |
| | | 3.0 | V-0, 5VA | 220 | 200 | 220 | 0 | 0 | 4 | 5 | 4 |
| | | 6.0 | V-0, 5VA | 220 | 200 | 220 | 0 | 0 | 4 | 5 | 4 |

Report : 12/07/1982

Sunday,August 23, 1998

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Polyphenylene sulfide (PPS), glass reintorced, mineral reinforced, designated "RYTON", furnished as pellets. | | | | | | | | | | | |
| R-7 | NC,BK,TN | 0.71 | V-0 | 200 | 200 | 200 | 1 | 0 | 0 | 5 | 3 |
| | | 1.5 | V-0 | 220 | 220 | 220 | 1 | 0 | 0 | 5 | 3 |
| | | 3.0 | V-0 | 220 | 220 | 220 | 1 | 0 | 0 | 5 | 3 |
| | | 6.0 | V-0 | 220 | 220 | 220 | — | — | 0 | 5 | 3 |

Report : 08/30/1983

Underwriters Laboratories Inc. ® 984485002