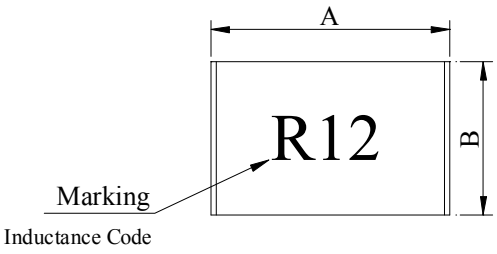
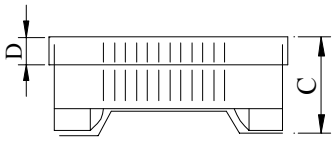
# SPECIFICATION FOR APPROVAL

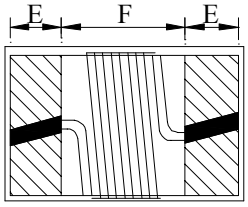
REF : PAGE: 1

| PROD. NAME | WOUND CHIP INDUCTOR | ABC'S DWG NO. | SW2520□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

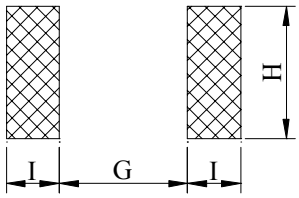
## Ⅰ．CONFIGURATION & DIMENSIONS：



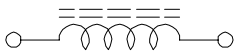




| | | | |
|---|---|---|---|
| A | : | 2.50±0.2 | m/m |
| B | : | 2.00±0.2 | m/m |
| C | : | 1.60±0.2 | m/m |
| D | : | 0.50 | m/m |
| E | : | 0.50 | m/m |
| F | : | 1.50 | m/m |
| G | : | 1.20 | m/m |
| H | : | 2.30 | m/m |
| I | : | 0.65 | m/m |




( PCB Pattern )

## Ⅱ．SCHEMATIC DIAGRAM：



## Ⅲ．MATERIALS：

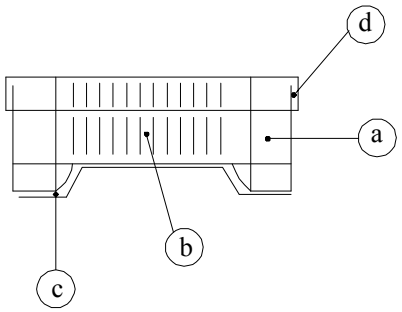
a．Core：Ceramic

b．WIRE ：Enamelled copper wire (class H)

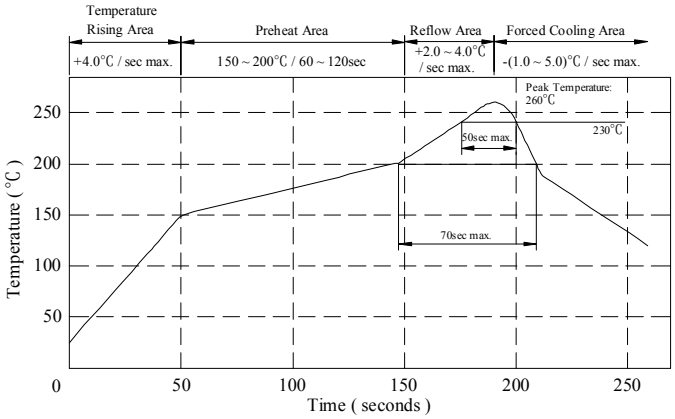
c．Terminal：Mo / Mn + Ni + Au

d．Encapsulate：Epoxy

e．Remark：Products comply with RoHS' requirements




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




## Ⅳ．GENERAL SPECIFICATION：

a．Temp Rise ：15℃ max.

b．Rated current：Current cause inductance drop within 10% max.

c．Storage temp.：-40℃ ----+125℃

d．Operating temp.：-40℃----+125℃

# SPECIFICATION FOR APPROVAL



| PROD. NAME | WOUND CHIP INDUCTOR | ABC'S DWG NO. | SW2520□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅴ . ELECTRICAL CHARACTERISTICS ：

| DWG No. | Inductance ( nH ) | Q min | Test Freq. ( MHz ) | | SRF ( MHz ) min | RDC ( Ω ) max | IDC ( mA ) max |
|---|---|---|---|---|---|---|---|
| | | | L | Q | | | |
| SW25203N3DL□-□□□ | 3.3±0.3 | 50 | 100 | 1000 | 6000 | 0.06 | 1000 |
| SW25206N8JL□-□□□ | 6.8± 5% | 50 | 100 | 1000 | 5500 | 0.06 | 1000 |
| SW25207N8JL□-□□□ | 7.8± 5% | 50 | 100 | 1000 | 5500 | 0.06 | 1000 |
| SW25208N2JL□-□□□ | 8.2± 5% | 50 | 100 | 1000 | 5500 | 0.06 | 1000 |
| SW252010NJL□-□□□ | 10.0± 5% | 50 | 100 | 1000 | 4300 | 0.08 | 1000 |
| SW252012NJL□-□□□ | 12.0± 5% | 60 | 100 | 500 | 3600 | 0.08 | 1000 |
| SW252015NJL□-□□□ | 15.0± 5% | 60 | 100 | 500 | 2700 | 0.08 | 1000 |
| SW252018NJL□-□□□ | 18.0± 5% | 60 | 100 | 350 | 2700 | 0.10 | 1000 |
| SW252022NJL□-□□□ | 22.0± 5% | 60 | 100 | 350 | 2500 | 0.10 | 1000 |
| SW252027NJL□-□□□ | 27.0± 5% | 60 | 100 | 350 | 1800 | 0.10 | 1000 |
| SW252033NJL□-□□□ | 33.0± 5% | 60 | 100 | 350 | 1700 | 0.10 | 1000 |
| SW252039NJL□-□□□ | 39.0± 5% | 60 | 100 | 350 | 1500 | 0.10 | 1000 |
| SW252047NJL□-□□□ | 47.0± 5% | 60 | 100 | 350 | 1500 | 0.10 | 1000 |
| SW252056NJL□-□□□ | 56.0± 5% | 60 | 100 | 350 | 1350 | 0.12 | 1000 |
| SW252068NJL□-□□□ | 68.0± 5% | 60 | 100 | 350 | 1300 | 0.15 | 1000 |
| SW252082NJL□-□□□ | 82.0± 5% | 60 | 100 | 350 | 1100 | 0.18 | 1000 |
| SW2520R10JL□-□□□ | 100.0± 5% | 60 | 100 | 350 | 1100 | 0.18 | 1000 |
| SW2520R12JL□-□□□ | 120.0± 5% | 45 | 25 | 100 | 950 | 0.20 | 800 |
| SW2520R15JL□-□□□ | 150.0± 5% | 45 | 25 | 100 | 880 | 0.22 | 800 |
| SW2520R18JL□-□□□ | 180.0± 5% | 45 | 25 | 100 | 800 | 0.33 | 800 |
| SW2520R22JL□-□□□ | 220.0± 5% | 45 | 25 | 100 | 730 | 0.45 | 800 |
| SW2520R27JL□-□□□ | 270.0± 5% | 45 | 25 | 100 | 650 | 0.75 | 600 |
| SW2520R33JL□-□□□ | 330.0± 5% | 45 | 25 | 100 | 570 | 0.90 | 500 |
| SW2520R39JL□-□□□ | 390.0± 5% | 45 | 25 | 100 | 530 | 1.06 | 470 |
| SW2520R47JL□-□□□ | 470.0± 5% | 45 | 25 | 100 | 480 | 1.17 | 420 |
| SW2520R56JL□-□□□ | 560.0± 5% | 45 | 25 | 100 | 430 | 1.50 | 310 |
| SW2520R68JL□-□□□ | 680.0± 5% | 45 | 25 | 100 | 380 | 2.06 | 230 |
| SW2520R75JL□-□□□ | 750.0± 5% | 45 | 25 | 100 | 360 | 2.20 | 200 |
| SW2520R82JL□-□□□ | 820.0± 5% | 45 | 25 | 100 | 350 | 2.30 | 180 |
| SW2520R91JL□-□□□ | 910.0± 5% | 45 | 25 | 100 | 330 | 3.18 | 150 |
| SW25201R0JL□-□□□ | 1000.0± 5% | 35 | 25 | 50 | 310 | 3.30 | 120 |

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

2)."-□□□ ":Reference code

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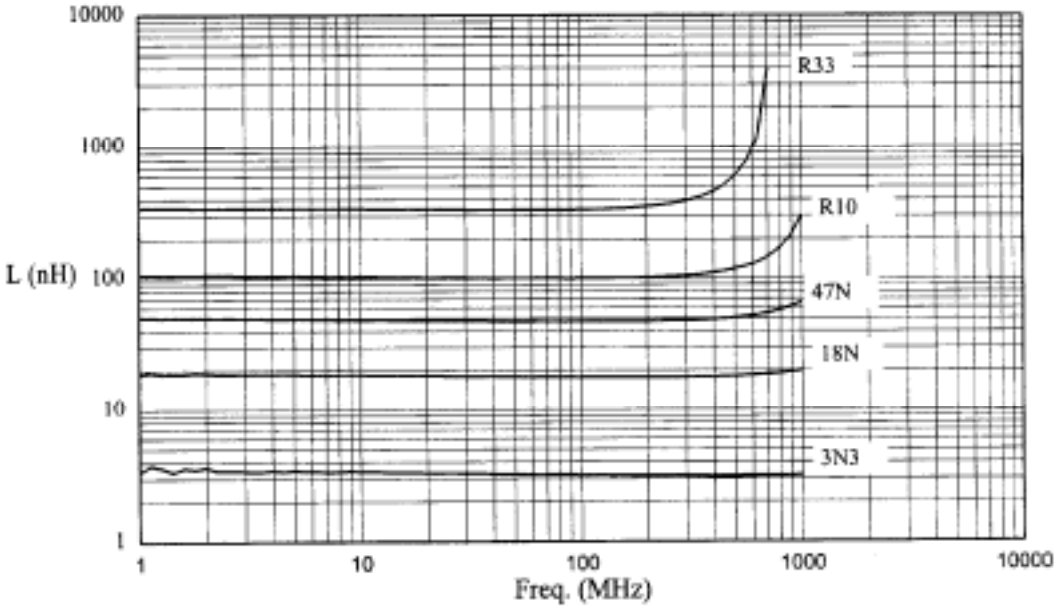
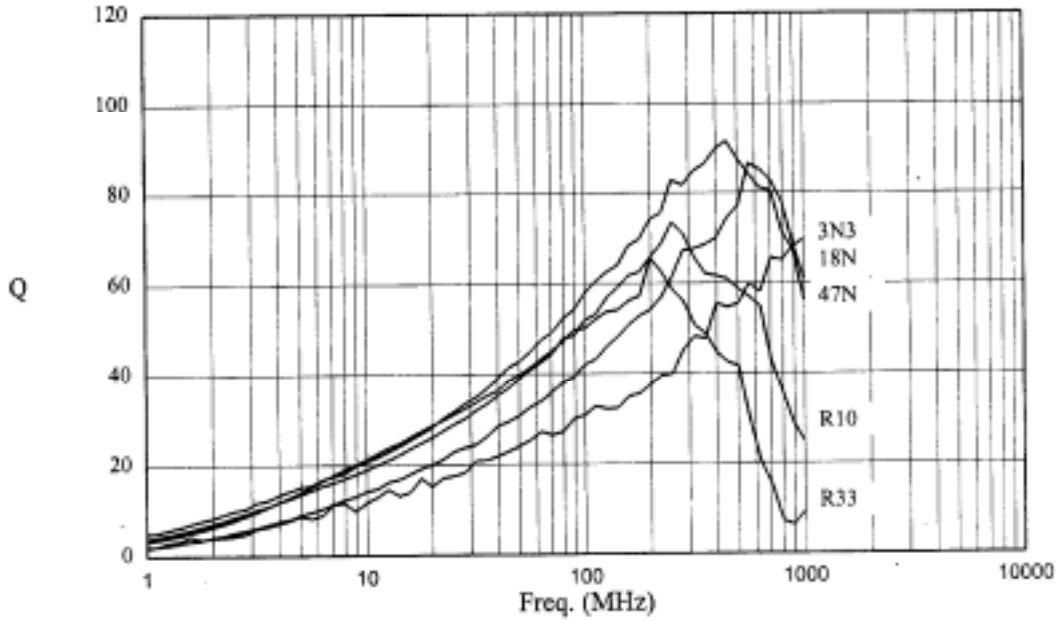
Ⅵ . CURVE ：

**L vs Freq Plot**




**Q vs Freq Plot**






千如電子集團
ABC ELECTRONICS GROUP.

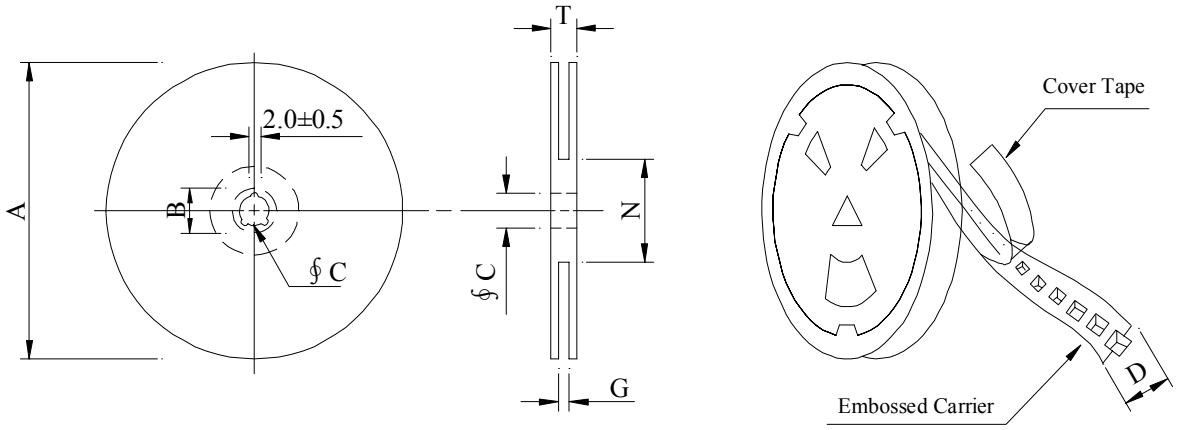
# SPECIFICATION FOR APPROVAL



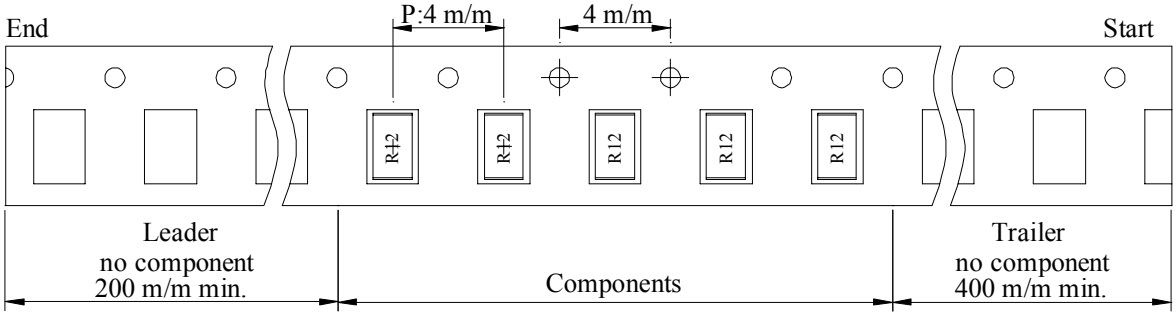
| PROD. NAME | WOUND CHIP INDUCTOR | ABC'S DWG NO. | SW2520□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅶ . PACKAGING INFORMATION :

( 1 ) Configuration




※Carrier Tape Width : D




( 2 ) Dimensions Unit:m/m

| Style | A | B | C | D | G | N | T |
|---|---|---|---|---|---|---|---|
| 07 - 08 | 178 | 21±0.8 | 13 | 8 | $10^{+0}$ | $50^{-0}$ | 12.5 |

( 2 ) Q'TY & G.W. Per package

| Series | Inner : Reel | | | Outer : Carton | | |
|---|---|---|---|---|---|---|
| | Q'TY (pcs) | G.W. (gw) | Style | Q'TY (pcs) | G.W. (Kg) | Size (cm) |
| SW2520 | 2,000 | 95 | 07 - 08 | 100,000 | 6.50 | 41 x 39 x 22 |

# SPECIFICATION FOR APPROVAL



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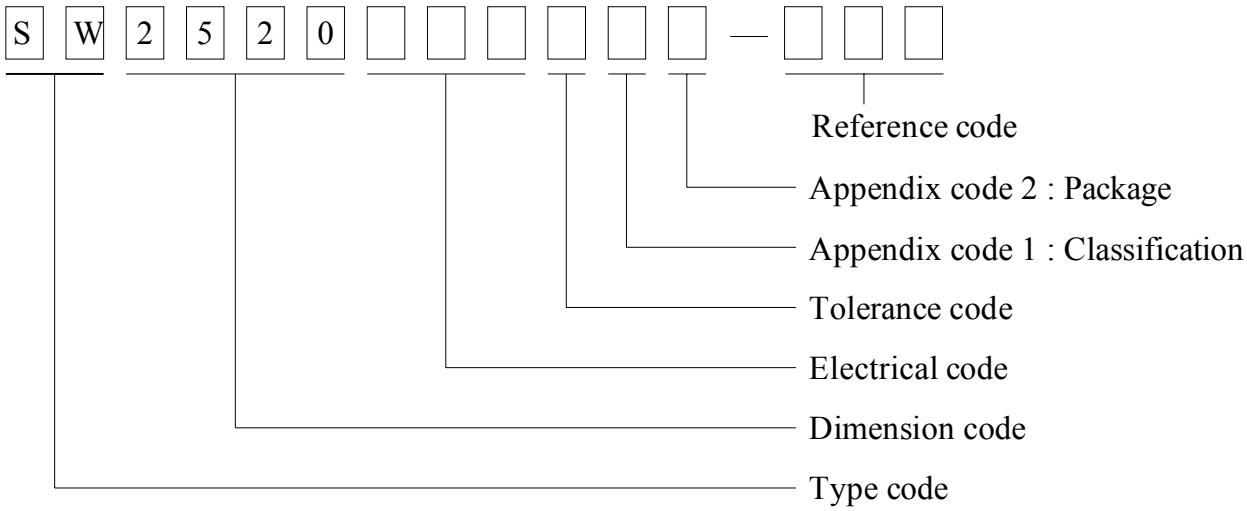
| | | ABC'S ITEM NO. | |

Ⅷ．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 ) | 2000 pcs | |

| PROD. NAME | WOUND CHIP INDUCTOR | ABC'S DWG NO. | SW2520□□□□L□-□□□ |
|---|---|---|---|
| | | ABC'S ITEM NO. | |

## Ⅸ . RELIABILITY TEST：

| Test items | Specifications | Test conditions / Test methods |
|---|---|---|
| *ELECTRICAL PERFORMANCE TEST* | | |
| L | Refer to standard electrical characteristic list | HP-4291A With HP-16193 Test fixture . |
| Q | | HP-4291A With HP-16193 Test fixture. |
| SRF | | HP-8753E |
| RDC | | HP-4338B |
| Rated currert IDC | | Applied the current to coils the inductance change shall be less than 10% to initial value and temperature rise shall not be more than 20℃ |
| Temperature rise test | 20℃ max. | 1.Applied the allowed DC current for 10 minutes.<br>2.Temperature measure by digtal surface thermometer . |
| Over load test | After test, Inductors shall be no evidence of electrical and mechanical damage | Applied 2 times of rated allowed DC current to inductor for a period of five minutes . |
| Withstanding voltage test | After test, Inductors shall be no evidence of electrical and mechanical damage | 500VAC between inductor terminals and center of case for a maximum 1 minute. |
| Insulation resistance test | 1000 MΩ min. | 100 VDC between inductor terminals and center case. |
| *MECHANICAL PERFORMANCE TEST* | | |
| Vibration test (Low frequency) | 1.There shall be no case deformation or change in appearance.<br>2.Inductance shall not change more than ±5%<br>3.Q shall not change more than±10% | 1.Amplitude：1.5 m/m<br>2.Frequency：10-55-10Hz/min.<br>3.Direction ：X,Y,Z<br>4.Duration ：2HRS/X,Y,Z |
| Vibration test (Low frequency ) | | Inductors shall be dropped 10 times from a height of 1m onto 3cm wooden board . |
| Resistance to soldering heat | | Inductors shall be reflowed onto a P.C. board using solder paste. Solder process shall be 230℃ for 20±2 seconds and 260℃ for 5±2 seconds |
| Solderability test | The metalized area must have 90% min. solder coverage | Dip pads in flux (Alpha 100 or equiv.) and dip in solder pot at 230±5℃ for 5 seconds |

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| | | |
|---|---|---|
| Component adhesion (Push test) | 20N：2012, 2520, 3225<br>10N：1608<br>5N：1005 | The device shall be reflow soldered (230±5℃ for 10 seconds) to a tinned copper substrate. A dynometer force gauge shall be applied to the side of the component . The device must withstand the minimum force indicated at left without a failure of the termination to board attachment. |
| *CLIMATIC TEST* | | |
| Temperature characteristic | 1.There shall be no case deformation or change in appearance.<br>2.Inductance shall not change more than ±5%<br>3.Q shall not change more than±10% | -40℃~125℃ |
| Humidity test | | Temp.：50±2℃<br>R.H.：90~95 %<br>Time.：96±2 hours |
| Low temperature storage | | Temp.：-40±2℃<br>Time.：48±2 hours |
| Thermal shock test | | -40℃ for 30 minutes.<br>+125℃ for 30 minutes.<br>Total：10 cycles |
| High temperature storage | | Temp.：125±2℃<br>Time.：48±2 hours |
| Note： Inductors are to be tested after 1 hour at room temperature. | | |
| *LIFE TEST* | | |
| High tempera - ture load life test | Inductors shall not have a shorted or open winding. | 1.Temp：85±2℃<br>2.Time：1000±12 hours<br>3.Load：Allowed DC current |
| Humidity load life | | 1.Temp：40±2℃<br>2.R.H.：90-95%<br>3.Time：1000±12 hours<br>4. Load：Allowed DC current |

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X . UL CARD：

OBMW2 August 27, 1999

Magnet Wire-Comporent

ELEKTRISOLA (MALAYSLA) SDN BHD E143312
IALAN DAMN SATU IANDA BAIK 28750 BENTONG, PAHANG
DARUL MAKMUR MALAYSIA

| Mtl Dsg | Mark Dsg | Coating Type BC | Coating Type OC | ANSI Typ | Temp Class |
|---|---|---|---|---|---|
| Estersol 160 | E180 | Polyesterimide (solderable) | —— | MW-77 | 180 |
| Amldester 200 | A200 | Polyesterimide | —— | MW-74 | 200 |
| Polysol-N 155 | PN155 | Polyurechane | Nylon | MW-80, MW-28 | 155, 100 |
| Polysol 155 | P155 | Polyurechane | —— | MW-79, MW-79 | 155, 130 |
| Polysol 155g | Pg155 | Polyurechane | —— | MW-79 | 130 |
| Polysol 155p | Pp155,Gp155 | Polyurechane | —— | MW-79 | 155 |
| Polysol 160 | P160 | Polyurechane | —— | MW-79 | 155 |
| Polysol 180 | P180 | Polyurechane | —— | MW-79 | 155 |
| Polysol 170 | P170 or G170 | Polyurechane | —— | MW-79 | 156 |
| Polysol-N 180 | PN180 | Polyurechane | Nylon | —— | 180 |

Marking：Dompany name/nateriel designation or marked designation and factory identification on package ok reel

See General Information preceding These Recognitions

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