

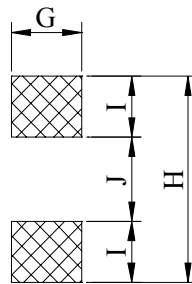
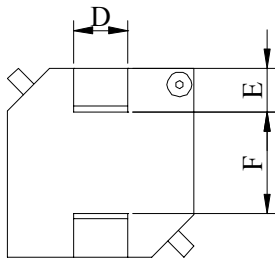
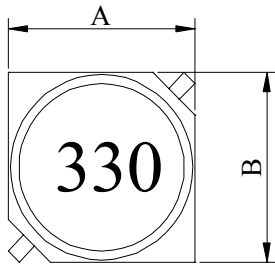
SPECIFICATION FOR APPROVAL

REF :

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| | | | |
|------------|--------------------|----------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG NO. | SB1030□□□□L□-□□□ |
| | | ABC'S ITEM NO. | |

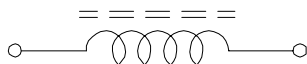
. CONFIGURATION & DIMENSIONS :



- A : 10.0±0.3 m/m
- B : 10.0±0.3 m/m
- C : 3.0±0.3 m/m
- D : 2.4 typ. m/m
- E : 2.0 typ. m/m
- F : 6.0 typ m/m
- G : 2.8 ref. m/m
- H : 10.4 ref. m/m
- I : 2.4 ref. m/m
- J : 5.6 ref. m/m

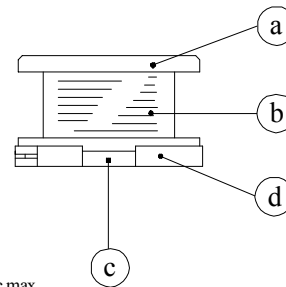
(PCB Pattern)

. SCHEMATIC DIAGRAM :



. MATERIALS :

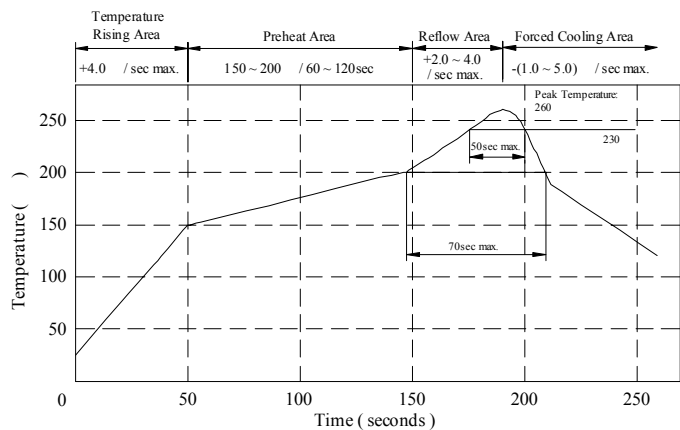
- a . Core : Ferrite DR core
- b . Wire : Enameled copper wire (class F)
- c . Terminal : Cu / Ni / Sn
- d . Base : LCP Base
- e . Adhesive : Epoxy resin
- f . Remark : Products comply with RoHS' requirements



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

. GENERAL SPECIFICATION :

- a . Temp. rise 30 max.
- b . Storage temp. : -40 ~ +125
- c . Operating temp. : -40 ~ +125
 (Temp. rise included)
- d . Resistance to solder heat : 260 . 10 secs.



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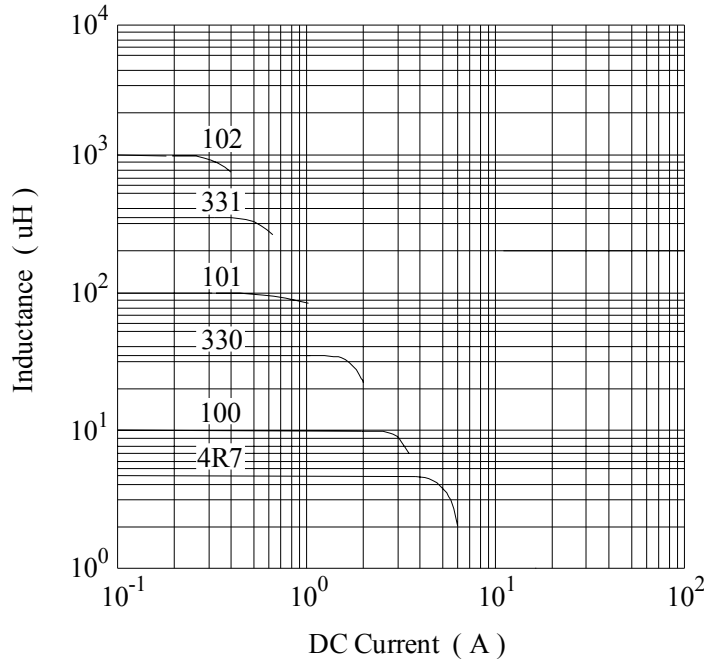
| | | | |
|------------|--------------------|----------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG NO. | SB1030□□□□L□-□□□ |
| | | ABC'S ITEM NO. | |

. ELECTRICAL CHARACTERISTICS :

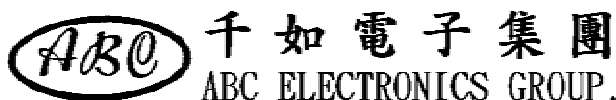
| DWG No. | L (uH) | Q ref. | Test Freq. | | SRF (MHz) typ. | RDC (Ω) max. | Irms (A) | Isat (A) |
|------------------|------------|-----------|-------------|--------------|------------------------|----------------------|---------------|---------------|
| | | | L (Hz) | Q (MHz) | | | | |
| SB10302R7ML□-□□□ | 2.7±20% | 13 | 100K/0.1V | 7.96 | 73.6 | 0.028 | 3.00 | 4.20 |
| SB10304R7ML□-□□□ | 4.7±20% | 13 | 100K/0.1V | 7.96 | 49.5 | 0.040 | 2.60 | 3.50 |
| SB10306R8ML□-□□□ | 6.8±20% | 15 | 100K/0.1V | 7.96 | 38.1 | 0.052 | 2.20 | 2.80 |
| SB1030100ML□-□□□ | 10.0±20% | 15 | 100K/0.1V | 2.52 | 33.1 | 0.064 | 2.00 | 2.40 |
| SB1030150ML□-□□□ | 15.0±20% | 18 | 100K/0.1V | 2.52 | 25.7 | 0.100 | 1.65 | 1.85 |
| SB1030220ML□-□□□ | 22.0±20% | 20 | 100K/0.1V | 2.52 | 22.3 | 0.145 | 1.38 | 1.60 |
| SB1030330ML□-□□□ | 33.0±20% | 16 | 100K/0.1V | 2.52 | 16.4 | 0.220 | 1.10 | 1.25 |
| SB1030470ML□-□□□ | 47.0±20% | 10 | 100K/0.1V | 2.52 | 14.2 | 0.270 | 0.96 | 1.10 |
| SB1030680ML□-□□□ | 68.0±20% | 12 | 100K/0.1V | 2.52 | 12.2 | 0.360 | 0.82 | 0.90 |
| SB1030101KL□-□□□ | 100.0±10% | 14 | 100K/0.1V | 0.796 | 9.3 | 0.540 | 0.70 | 0.75 |
| SB1030151KL□-□□□ | 150.0±10% | 23 | 100K/0.1V | 0.796 | 7.9 | 0.700 | 0.60 | 0.58 |
| SB1030221KL□-□□□ | 220.0±10% | 23 | 100K/0.1V | 0.796 | 6.2 | 1.150 | 0.46 | 0.48 |
| SB1030331KL□-□□□ | 330.0±10% | 25 | 100K/0.1V | 0.796 | 5.1 | 1.700 | 0.38 | 0.40 |
| SB1030471KL□-□□□ | 470.0±10% | 20 | 100K/0.1V | 0.796 | 3.8 | 2.250 | 0.28 | 0.32 |
| SB1030681KL□-□□□ | 680.0±10% | 18 | 100K/0.1V | 0.796 | 3.2 | 3.300 | 0.23 | 0.27 |
| SB1030102KL□-□□□ | 1000.0±10% | 42 | 100K/0.1V | 0.252 | 2.5 | 4.700 | 0.20 | 0.23 |

- 1). □ : Packaging information ... [A]: Bulk [B]: Taping Reel
- 2). "- □□□ " : Reference code
- 3). Irms base on temp. rise 30 max.
- 4). Isat base on L/L0A=10% typ.

@ Inductance VS. DC Superposition Characteristics



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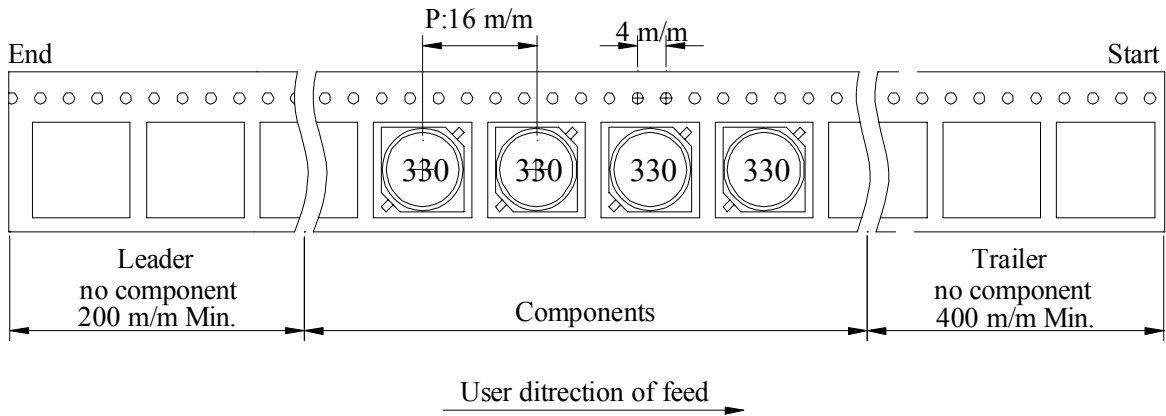
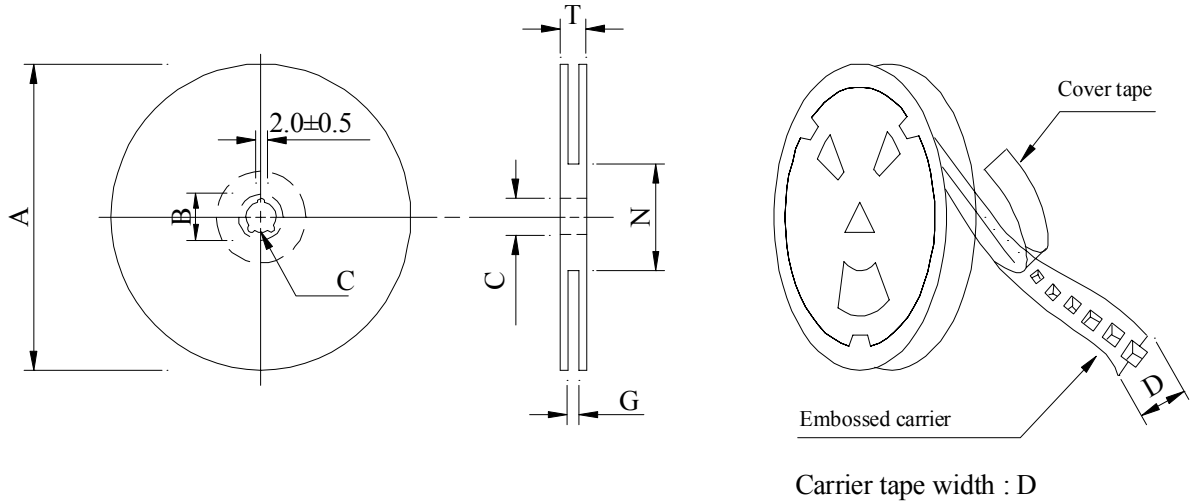
REF :

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| | | | |
|------------|--------------------------------|----------------|------------------|
| PROD. NAME | SHIELDED SMD POWER INDUCTOR | ABC'S DWG NO. | SB1030□□□□L□-□□□ |
| | | ABC'S ITEM NO. | |

PACKAGING INFORMATION :

(1) Configuration



(2) Dimensions

Unit: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

| Series | Inner : Reel | | | Outer : Carton | | |
|--------|--------------|-----------|---------|----------------|-----------|--------------|
| | Q'TY (pcs) | G.W. (gw) | Style | Q'TY (pcs) | G.W. (Kg) | Size (cm) |
| SB1030 | 1,000 | 3,000 | 13 - 24 | 4,000 | 12.0 | 40 x 40 x 24 |

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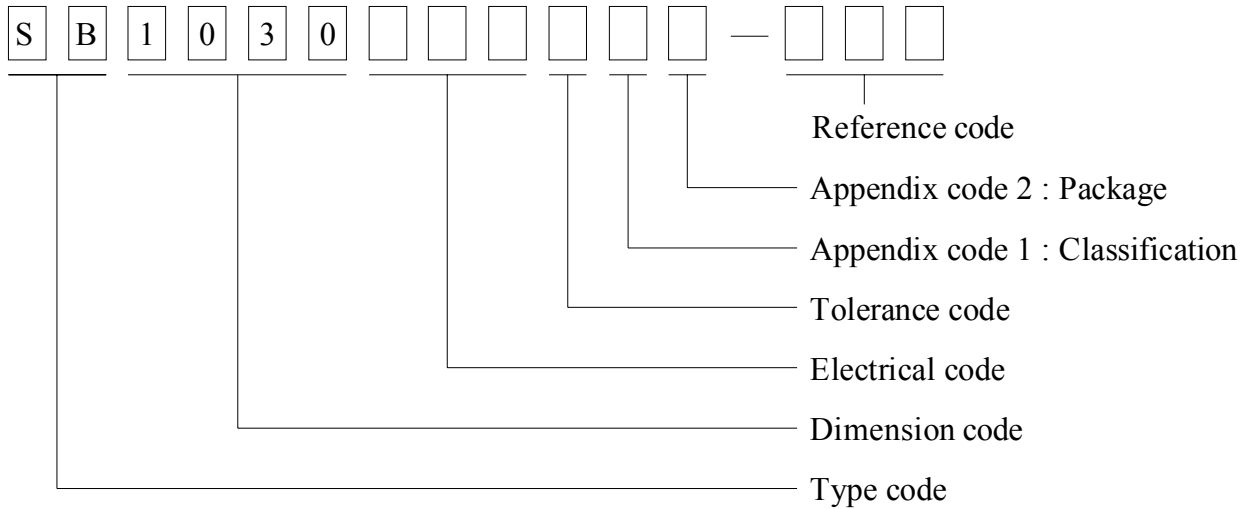
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REF :

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| | | | |
|---------------|--------------------|----------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG NO. | SB1030□□□□L□-□□□ |
| | | ABC'S ITEM NO. | |

. 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) | 1000 pcs | |

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REF :

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| | | | |
|---------------|--------------------|----------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG NO. | SB1030□□□□L□-□□□ |
| | | ABC'S ITEM NO. | |

. RELIABILITY TEST :

| Test item | Specification | Test condition | | | | | | | | |
|---------------------------------------|---|---|---------------------|----------------------------------|------------|------------|---------------------|---------------------------------|------------|------------|
| Solderability | More than 90% of the terminal electrode shall be covered With fresh solder. | Preheat : 150±25 for 60 seconds Solder : Sn96.5 / Ag3 / Cu0.5 or equivalent Solder temp. : 235±5 Flux : Rosin Dip time : 4±1 seconds | | | | | | | | |
| Thermal shock test (Temp. cycle) | Inductance shall not change more than ±20% | <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Room temp. —————▶</td> <td style="border: none; text-align: center;"><u> -25±2 </u></td> </tr> <tr> <td style="border: none;">15 minutes</td> <td style="border: none; text-align: center;">30 minutes</td> </tr> <tr> <td style="border: none;">Room temp. —————▶</td> <td style="border: none; text-align: center;"><u> 85±2 </u></td> </tr> <tr> <td style="border: none;">15 minutes</td> <td style="border: none; text-align: center;">30 minutes</td> </tr> </table> <p>Total : 50 cycles</p> | Room temp. —————▶ | <u> -25±2 </u> | 15 minutes | 30 minutes | Room temp. —————▶ | <u> 85±2 </u> | 15 minutes | 30 minutes |
| Room temp. —————▶ | <u> -25±2 </u> | | | | | | | | | |
| 15 minutes | 30 minutes | | | | | | | | | |
| Room temp. —————▶ | <u> 85±2 </u> | | | | | | | | | |
| 15 minutes | 30 minutes | | | | | | | | | |
| Humidity Resistance test | | Temperature : 40±2 Humidity : 90 ~ 95% Applied current : Per spec. Time : 500 hours | | | | | | | | |
| High temp. Resistance test | | Temperature : 85±2 Applied current : Per spec. Time : 500 hours | | | | | | | | |

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| | | | |
|---------------|--------------------|---------------------------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG NO. ABC'S ITEM NO. | SB1030□□□□L□-□□□ |
|---------------|--------------------|---------------------------------|------------------|

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 | 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 | 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 magnd wires twisted together; EL - signifies base coated magnet wire laid parallel with top coat applied overall; LZL - signi-
fies base coated magnet wire twisted together and covered with top coat overall.
Marking: Company name or trademarks **JSW** or 榮星電線 , 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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OBMW2E174837
September 8, 2000

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| | | | |
|---------------|--------------------|----------------|------------------|
| PROD. NAME | SMD POWER INDUCTOR | ABC'S DWG NO. | SB1030□□□□L□-□□□ |
| | | ABC'S ITEM NO. | |

| | | SUMITOMO CHEMICAL CO LTD 5-33 KITAHAMA 4-CHOME CHUO-KO, OSAKA JAPAN | | | | | | E54705 (M) | | | | |
|---|------------|--|------------------------|------|---------------------|------------|-------------|-------------|------------------|------------------|-------------|--|
| Mtl Dsg | Col | Min Thk mm | UL94 Flame Class | RTI | | | H W I | H A I | H V T R | D 4 9 5 | C T I | |
| | | | | Elec | Mech with Imp | w/o Imp | | | | | | |
| Liquid crystal polyester (LCP), designated "EKONOL" or "SUMIKASUPER", furnished in the form of pellets, (Contd) | | | | | | | | | | | | |
| E4008, E400X | NC, BK | 0.30 | 94V-0 | 130 | 130 | 130 | — | — | — | — | — | |
| | | 0.75 | 94V-0 | 130 | 130 | 130 | 3 | 4 | — | — | — | |
| | | 1.5 | 94V-0 | 130 | 130 | 130 | 2 | 4 | — | — | — | |
| | | 3.0 | 94V-0 | 130 | 130 | 130 | 1 | 4 | 0 | 5 | 4 | |
| E4008 | NC, WT, BK | 0.30 | 94V-0 | 130 | 130 | 130 | — | — | — | — | — | |
| | | 0.75 | 94V-0 | 220 | 180 | 220 | 3 | 4 | — | — | — | |
| | | 1.5 | 94V-0 | 220 | 200 | 240 | 2 | 4 | — | — | — | |
| | | 3.0 | 94V-0 | 220 | 200 | 240 | 1 | 4 | 0 | 5 | 4 | |
| E4010 | NC, BK | 0.30 | 94V-0 | 130 | 130 | 130 | — | — | — | — | — | |
| | | 0.75 | 94V-0 | 220 | 180 | 220 | 3 | 4 | — | — | — | |
| | | 1.5 | 94V-0 | 220 | 200 | 240 | 2 | 4 | — | — | — | |
| | | 3.0 | 94V-0 | 220 | 200 | 240 | 1 | 4 | 0 | 5 | 4 | |
| E400(Y)L, E4008L | NC, BK | 0.30 | 94V-0 | 130 | 130 | 130 | — | — | — | — | — | |
| | | 0.75 | 94V-0 | 130 | 130 | 130 | 3 | 4 | — | — | — | |
| | | 1.5 | 94V-0 | 130 | 130 | 130 | 2 | 4 | — | — | — | |
| | | 3.0 | 94V-0 | 130 | 130 | 130 | 1 | 4 | 0 | 5 | 4 | |
| E4810 | NC, BK | 0.30 | 94V-0 | 130 | 130 | 130 | — | — | — | — | — | |
| | | 0.75 | 94V-0 | 130 | 130 | 130 | 0 | 4 | — | — | — | |
| | | 1.5 | 94V-0 | 130 | 130 | 130 | 0 | 4 | — | — | — | |
| | | 3.0 | 94V-0 | 130 | 130 | 130 | 1 | 4 | 0 | 5 | 4 | |

(X) Denotes any number 1 thru 9.
(Y) Denotes any number 1 thru 7.

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