



# Data Sheet of SAW Components



Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.  
Please also read caution at the end of this document.

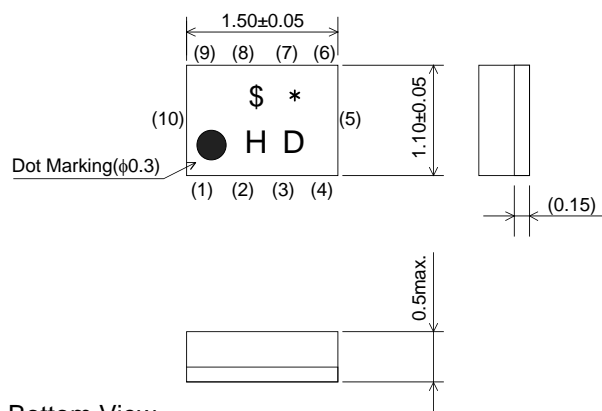
# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90KA0F0A (fc=1900MHz)

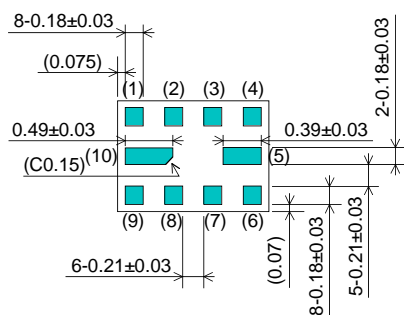
## ■ Package Dimensions

## ■ Specification

Top View



Bottom View



Marking: Laser Printing

: EIAJ Code

(Refer to the table 1)

\$ : Date Code

(Refer to the table 2)

(1) : Unbalance Port (1900/2017.5MHz)

(9) : Unbalance Port (1900MHz)

(6) : Unbalance Port (2017.5MHz)

Others : Ground

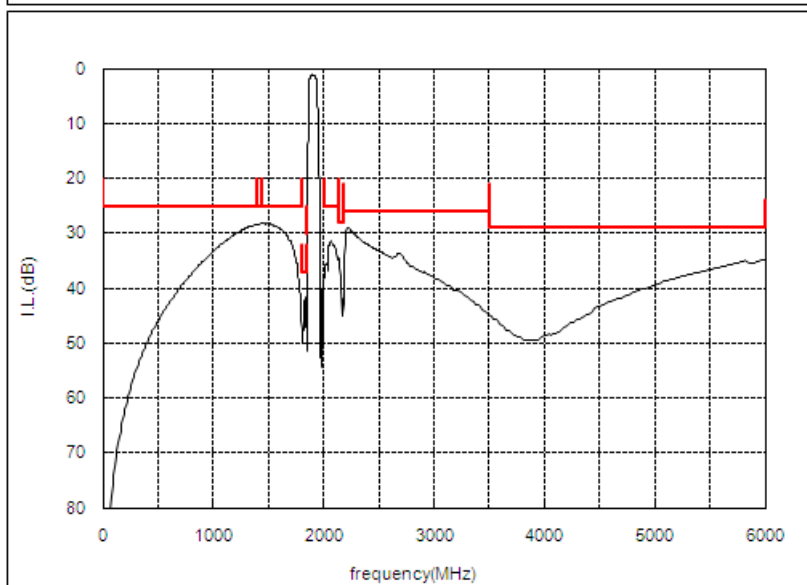
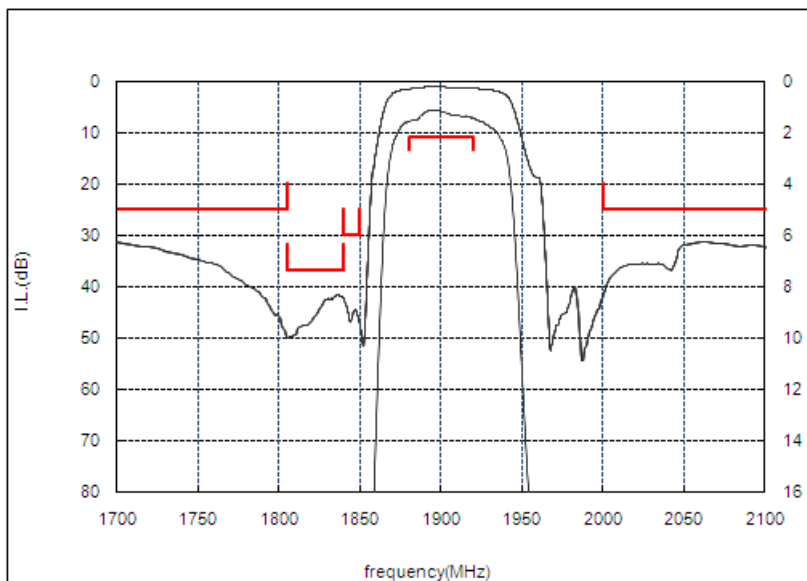
Unit : mm

| Item   | Specification             |             |        |
|--|---------------------------|-------------|--------|
|  | -30 to 85°C               | 25±2°C      | typ.   |
| Nominal Center Frequency(fc)                   | 1900MHz                   |             |        |
| Insertion Loss<br>(1880 to 1920MHz)            | 2.2 dB max.               | 2.0 dB max. | 1.6 dB |
| Absolute Attenuation                           |                           |             |        |
| 1) 0.1 to 1395 MHz                             | 25 dB min.                | 25 dB min.  | 28 dB  |
| 2) 1395 to 1435 MHz                            | 25 dB min.                | 25 dB min.  | 28 dB  |
| 3) 1435 to 1805 MHz                            | 25 dB min.                | 25 dB min.  | 28 dB  |
| 4) 1805 to 1840 MHz                            | 37 dB min.                | 37 dB min.  | 42 dB  |
| 5) 1840 to 1850 MHz                            | 30 dB min.                | 37 dB min.  | 43 dB  |
| 6) 2000 to 2135 MHz                            | 25 dB min.                | 25 dB min.  | 31 dB  |
| 7) 2135 to 2175 MHz                            | 28 dB min.                | 28 dB min.  | 34 dB  |
| 8) 2175 to 3500 MHz                            | 26 dB min.                | 26 dB min.  | 29 dB  |
| 9) 3500 to 6000 MHz                            | 29 dB min.                | 29 dB min.  | 35 dB  |
| Ripple Deviation<br>(1880 to 1920MHz)          | 1.2 dB max.               | 1.0 dB max. | 0.6 dB |
| VSWR<br>(1880 to 1920MHz)                      | 1.9 max.                  | 1.7 max.    | 1.5    |
| Unbalance Port Matching Impedance<br>(nominal) | 50Ω//4.3nH                |             |        |
| Unbalance Port Matching Impedance<br>(nominal) | 50Ω                       |             |        |
| Input Signal Level                             | 20mW (+13dBm), 2000 hours |             |        |

# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90KA0F0A (fc=1900MHz)

## Frequency Performance



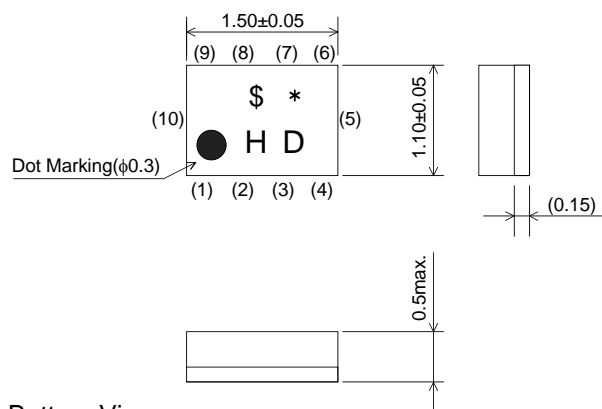
# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90KA0F0A (fc=2017.5MHz)

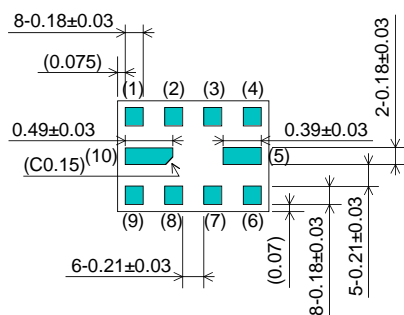
## ■ Package Dimensions

## ■ Target Specification

Top View



Bottom View



Marking: Laser Printing  
 : EIAJ Code  
 (Refer to the table 1)  
 \$ : Date Code  
 (Refer to the table 2)  
 (1) : Unbalance Port (1900/2017.5MHz)  
 (9) : Unbalance Port (1900MHz)  
 (6) : Unbalance Port (2017.5MHz)  
 Others : Ground

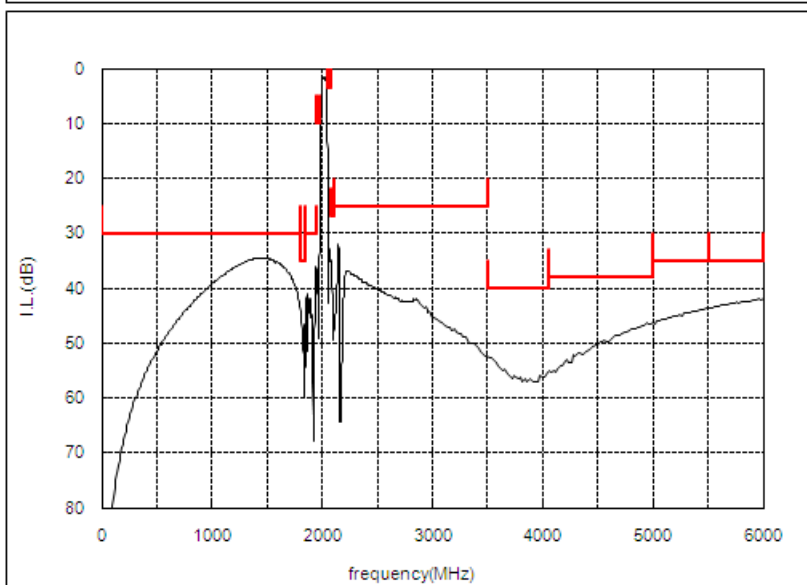
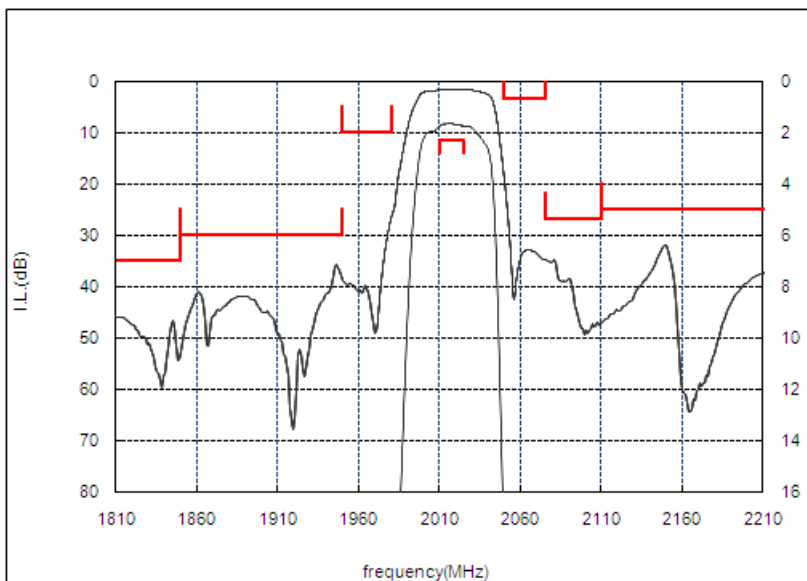
Unit : mm

| Item   | Specification             |             |        |
|--|---------------------------|-------------|--------|
|  | -30 to 85°C               | 25±2°C      | typ.   |
| Nominal Center Frequency(fc)                   | 2017.5 MHz                |             |        |
| Insertion Loss<br>(2010 to 2025MHz)            | 2.3 dB max.               | 2.1 dB max. | 1.8 dB |
| Absolute Attenuation                           |                           |             |        |
| 1) 0.1 to 1805 MHz                             | 30 dB min.                | 30 dB min.  | 34 dB  |
| 2) 1805 to 1850 MHz                            | 35 dB min.                | 35 dB min.  | 45 dB  |
| 3) 1850 to 1950 MHz                            | 30 dB min.                | 30 dB min.  | 37 dB  |
| 4) 1950 to 1980 MHz                            | 10 dB min.                | 15 dB min.  | 26 dB  |
| 5) 2050 to 2075 MHz                            | 3.5 dB min.               | 10 dB min.  | 22 dB  |
| 6) 2075 to 2110 MHz                            | 27 dB min.                | 27 dB min.  | 35 dB  |
| 7) 2110 to 3500 MHz                            | 25 dB min.                | 25 dB min.  | 32 dB  |
| 8) 3500 to 4060 MHz                            | 40 dB min.                | 40 dB min.  | 53 dB  |
| 9) 4060 to 5000 MHz                            | 38 dB min.                | 38 dB min.  | 46 dB  |
| 10) 5000 to 5500 MHz                           | 35 dB min.                | 35 dB min.  | 44 dB  |
| 11) 5500 to 6000 MHz                           | 35 dB min.                | 35 dB min.  | 42 dB  |
| Ripple Deviation<br>(2010 to 2025MHz)          | 0.8 dB max.               | 0.6 dB max. | 0.2 dB |
| VSWR<br>(2010 to 2025MHz)                      | 1.8 max.                  | 1.6 max.    | 1.2    |
| Unbalance Port Matching Impedance<br>(nominal) | 50Ω/4.3nH                 |             |        |
| Unbalance Port Matching Impedance<br>(nominal) | 50Ω                       |             |        |
| Input Signal Level                             | 20mW (+13dBm), 2000 hours |             |        |

# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90KA0F0A (fc=2017.5MHz)

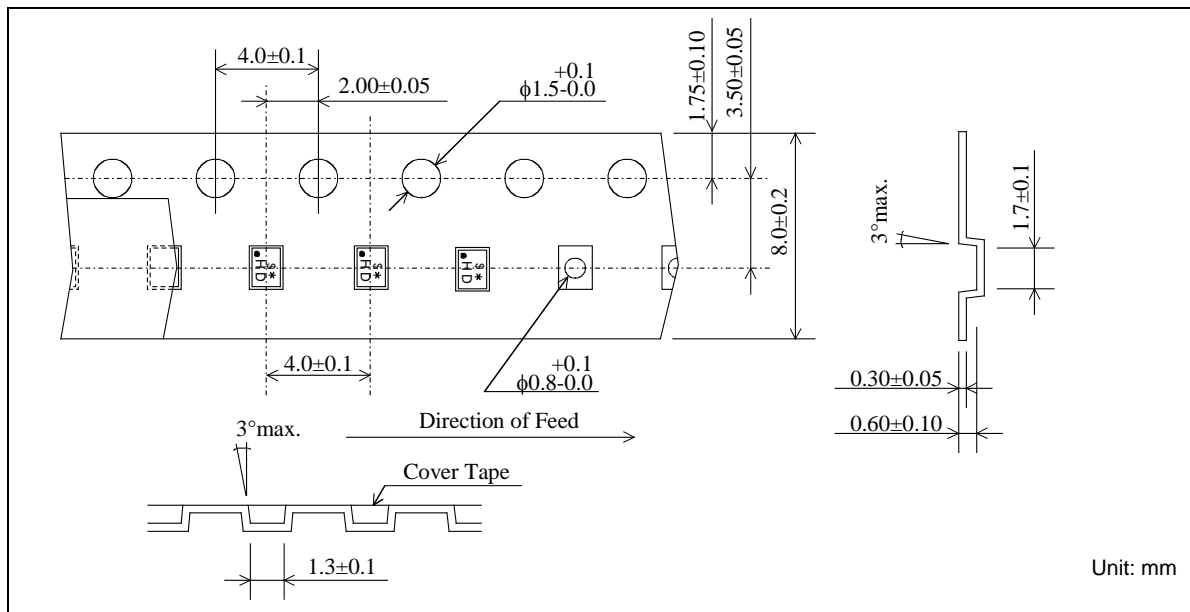
## Frequency Performance



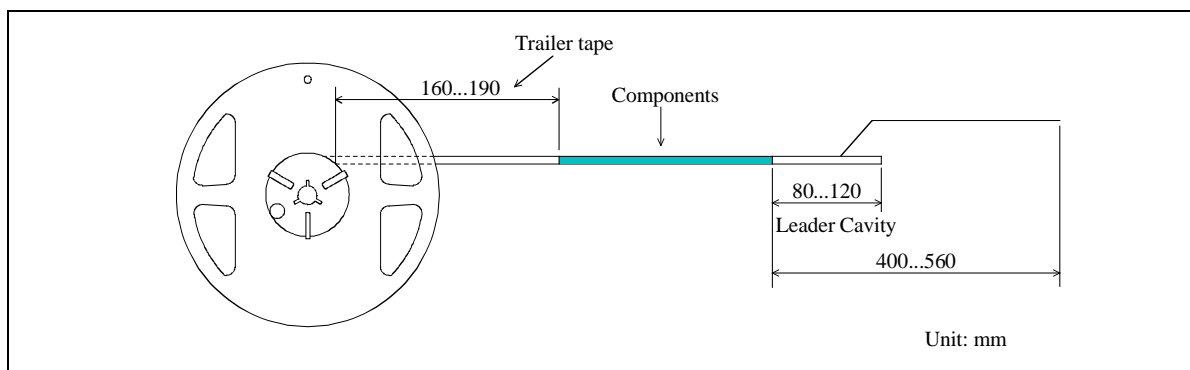
# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90KA0F0A

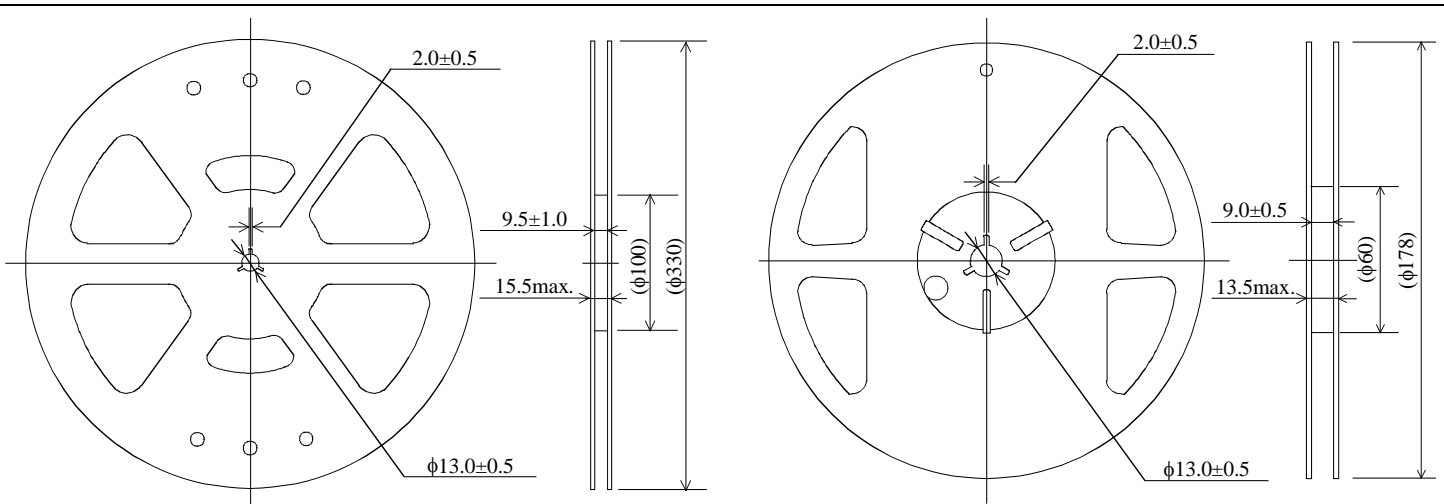
## Dimensions of Carrier Tape



## Dimensions of Tape



## Dimensions of Reel



SAWFD1G90KA0F0AR00 ... 10000pcs/reel

SAWFD1G90KA0F0AR15 ... 5000pcs/reel

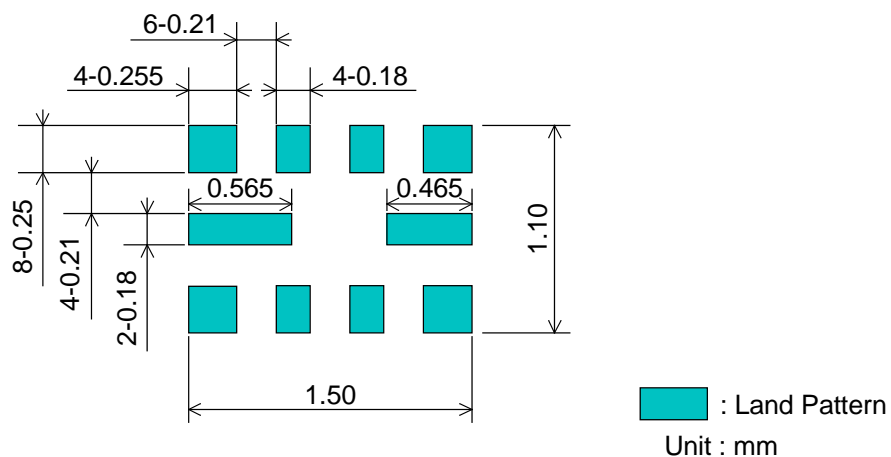
Unit: mm

# SAW FILTER FOR TD-SCDMA

Murata part number :SAWFD1G90KA0F0A

## Recommended Land Pattern

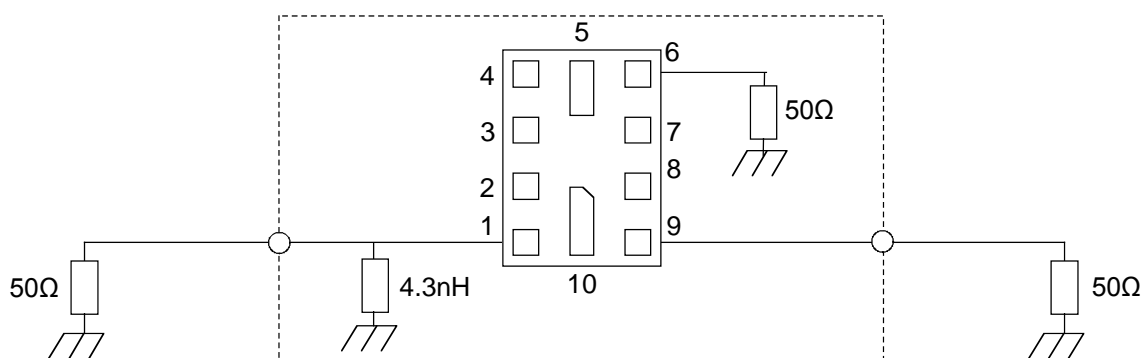
Top View



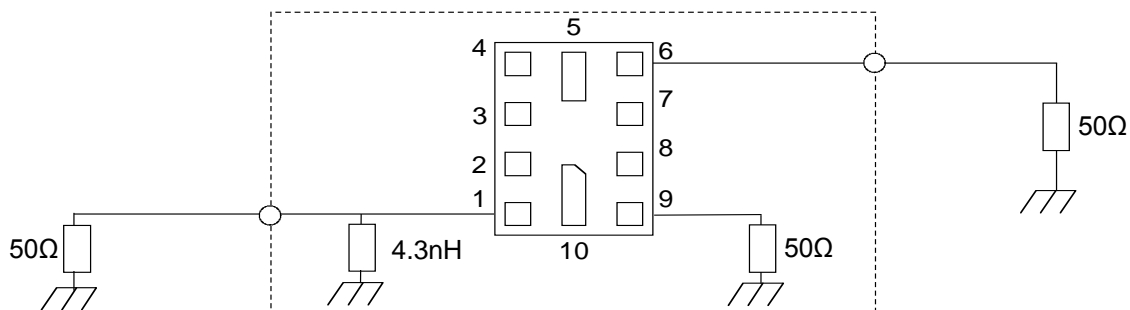
## Test Circuit

Bottom View

1900MHz



2017.5MHz



# SAW FILTER FOR TD-SCDMA

## Murata part number :SAWFD1G90KA0F0A

### ■ RoHS Compliance

This component is compliant with RoHS directive.

This component was always RoHS compliant from the first date of manufacture.

• Caution - Limitation of Applications  
This product is intended for the following applications only; however, please do not use this product in these applications where defects might directly cause damage to a third party's life, body or property.

a. Mobile Telephone  
b. Cordless phone (except for Automotive use)  
c. PC (Including Notebook PC, Netbook PC, Tablet)  
d. Game  
e. Camera (except for Business/security use)  
f. Set Top Box  
g. Electronic dictionary  
h. Digital audio equipment

• This catalog is for reference only and not an official product specification document, therefore, please review and approve our official product specification before ordering this product.

### ■ Marking code

Table 1 \* : EIAJ Code

This rule of code is applied repeatedly every four year.

|                      |      |      |      |      |     |      |      |      |      |      |      |      |
|----------------------|------|------|------|------|-----|------|------|------|------|------|------|------|
| 2009<br>2013<br>2017 | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|                      | A    | B    | C    | D    | E   | F    | G    | H    | J    | K    | L    | M    |
| 2010<br>2014<br>2018 | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|                      | N    | P    | Q    | R    | S   | T    | U    | V    | W    | X    | Y    | Z    |
| 2011<br>2015<br>2019 | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|                      | a    | b    | c̄   | d    | e   | f    | g    | h    | j    | k    | l    | m    |
| 2012<br>2016<br>2020 | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|                      | n    | p    | q    | r    | s   | t    | u    | v    | w    | x    | y    | z    |

Table 2 \$: Date Code

|      |      |      |      |      |      |      |      |      |      |      |      |  |
|------|------|------|------|------|------|------|------|------|------|------|------|--|
| date | 1st  | 2nd  | 3rd  | 4th  | 5th  | 6th  | 7th  | 8th  | 9th  | 10th |      |  |
| code | A    | B    | C    | D    | E    | F    | G    | H    | J    | K    |      |  |
| date | 11th | 12th | 13th | 14th | 15th | 16th | 17th | 18th | 19th | 20th |      |  |
| code | L    | M    | N    | P    | Q    | R    | S    | T    | U    | V    |      |  |
| date | 21st | 22nd | 23rd | 24th | 25th | 26th | 27th | 28th | 29th | 30th | 31st |  |
| code | W    | X    | Y    | Z    | a    | b    | c̄   | d    | e    | f    | g    |  |