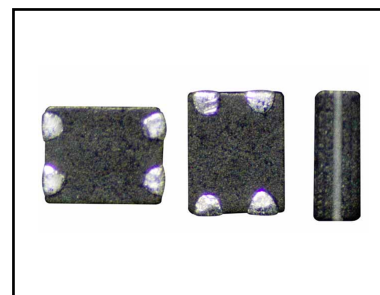


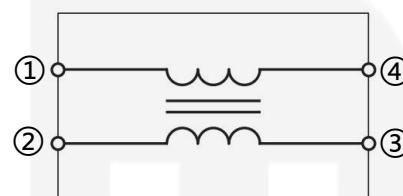
Description

- ◆ The common mode filter is mainly used to reduce radiation and high frequency common mode noise.
- ◆ Reduce asymmetric interference on data lines and other interfaces.
- ◆ Impedance characteristics match the impedance of most differential interface Settings, controlling unnecessary reflection formation
- ◆ Low leakage, no effect on differential mode current.



Features

- ◆ Size: 1.25mm*1.0mm*0.5mm
- ◆ Halogen free ,Lead free ,Reach and RoHs
- ◆ USB3.0 ,HDMI,MIPI,DP,LVDS.



Circuit Diagram

Application

- ◆ Cellular phones
- ◆ Portable devices
- ◆ Digital cameras
- ◆ Player
- ◆ Smart home
- ◆ Robot

| PIN NUMBER | DESCRIPTION |
|------------|-------------|
| ① ~ ④ | DATE LINE |
| ② ~ ③ | DATE LINE |

Order information

| Model | Package | shipping |
|-----------------|---------|----------------|
| CMF1210UD900MST | 1210 | 4000/Tape&Reel |

Part Numbering

| | | | | | | |
|------------|-------------|-----------|------------|----------|----------|----------|
| CMF | 1210 | UD | 900 | M | S | T |
| A | B | C | D | E | F | G |

A:ASIM common mode filter

B:Dimension

C:Cut-off frequency (6 GHz Typ)

D:Common Mode Impedance (at 100MHz), 900= 90Ω

E:Tolerance of common mode impedance, M= ±20%

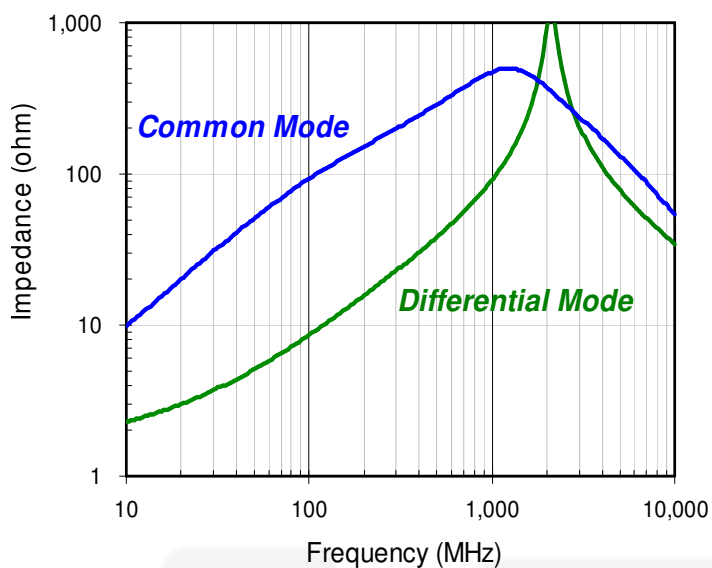
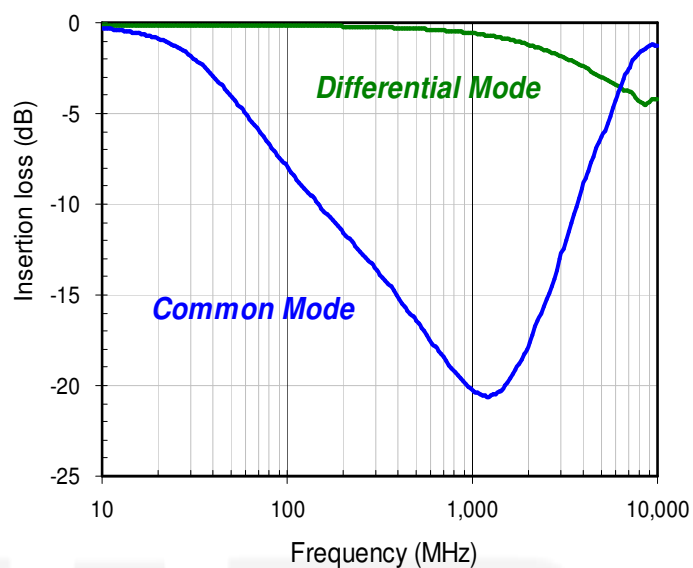
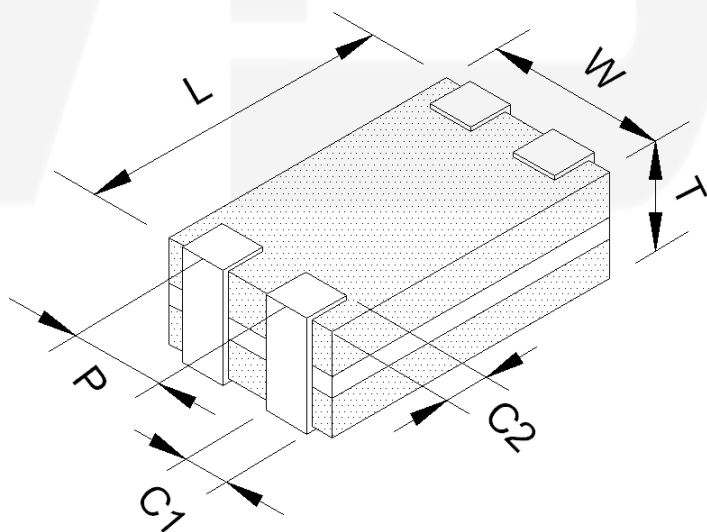
F:Laminated sintering process.

G:Packing Type

Specification

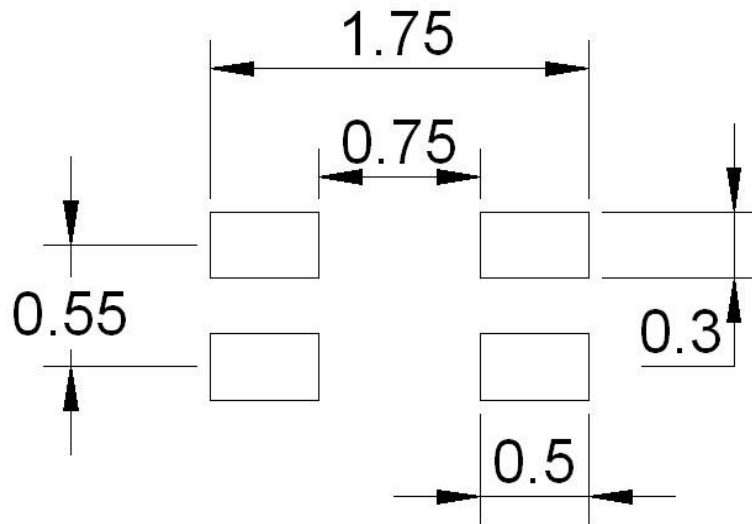
| Part number | Common mode impedance(Ω) @100MHz | Rated Current (mA) | DC Resistance (Ω) | |
|------------------------|---------------------------------------|-----------------------------|-----------------------------|-----|
| | | | TYP | MAX |
| CMF1210UD900MST | 90±20% | 130 | 1.5 | 3 |
| | Rated volt (Vdc) | Withstand volt (Vdc) | IR (Ω) min | |
| | 5 | 12.5 | 10M | |
| | Operation junction temperature | Lead temperature | Storage temperature* | |
| | -40°C~+85°C | 260°C | -40°C~85°C | |

*The storage temperature is subject to the fixed substrate

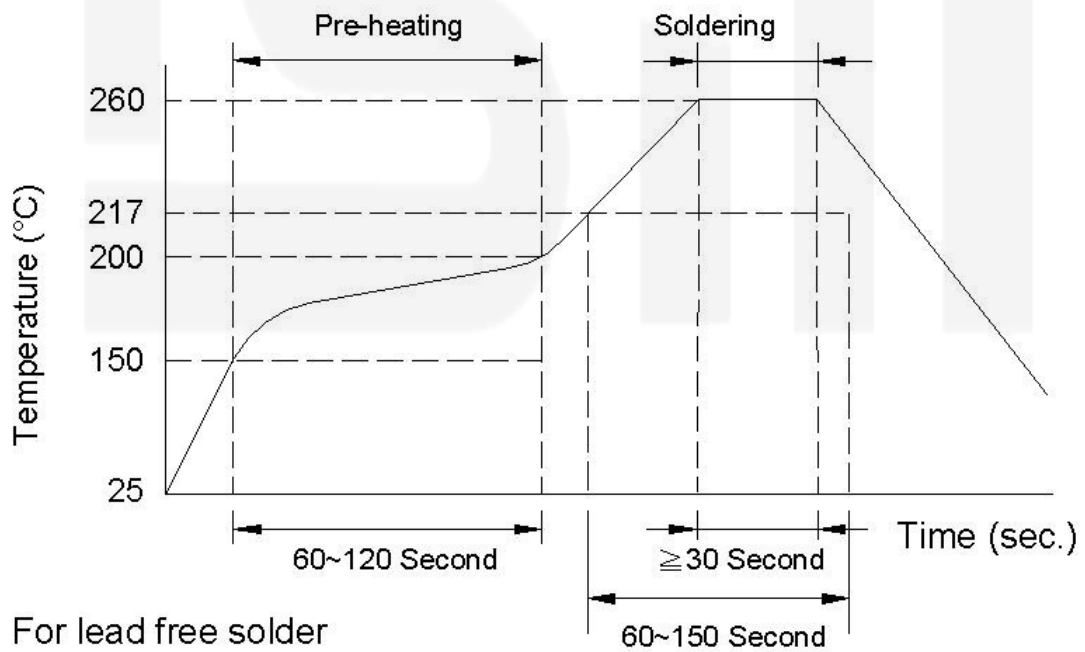
Typical Electrical Characteristic

Impedance VS Frequency

Insertion loss VS Frequency
Dimension (mm)


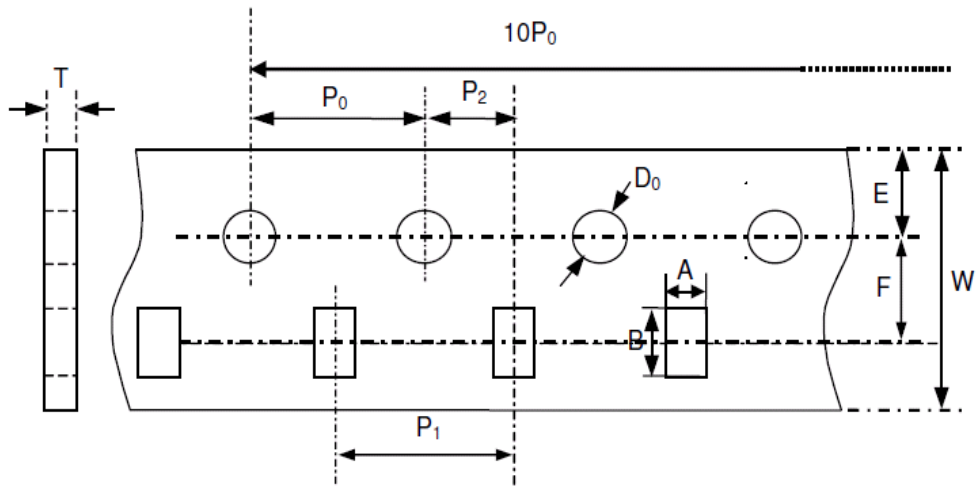
| TYPE | Dimension |
|-----------|-----------|
| L | 1.25±0.10 |
| W | 1.00±0.10 |
| T | 0.50±0.10 |
| P | 0.55±0.10 |
| C1 | 0.30±0.10 |
| C2 | 0.20±0.15 |
| Unit : mm | |

Recommended Land Pattern (mm)

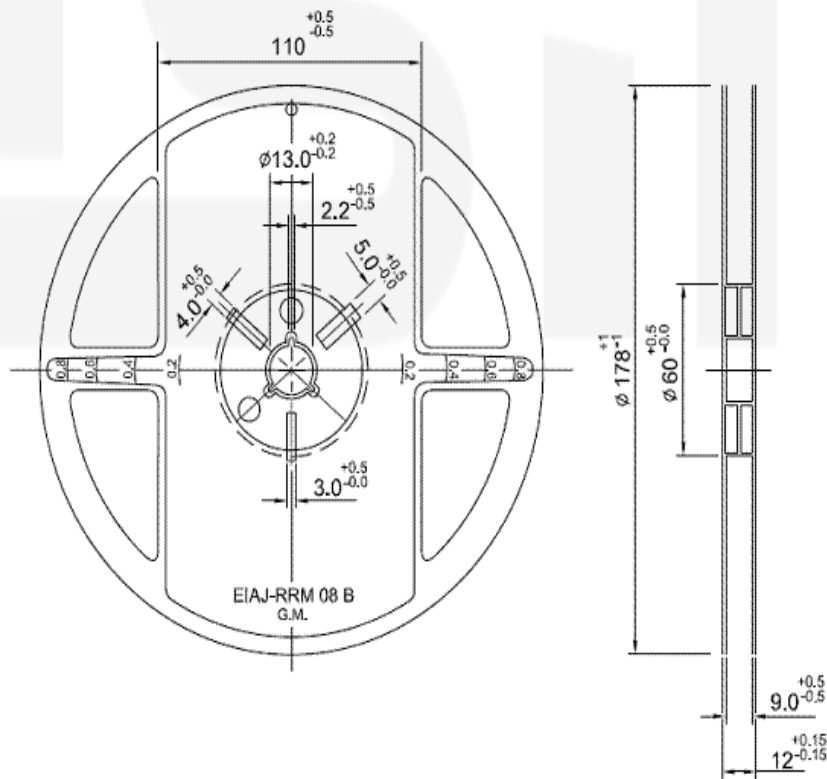


Recommended Reflow Profile



Tape and reel specification/Taping dimensions (mm)


| Symbol | Size | Symbol | Size |
|--------|-----------|----------------|-----------|
| A | 1.20±0.05 | P ₀ | 4.00±0.10 |
| B | 1.45±0.05 | P ₁ | 4.00±0.10 |
| W | 8.00±0.10 | P ₂ | 2.00±0.05 |
| E | 1.75±0.05 | D ₀ | 1.55±0.05 |
| F | 3.50±0.05 | T | 0.60±0.03 |



Reliability and test condition

| Test item | Test condition | Criteria |
|----------------------------------|--|---|
| Temperature Cycle | A. Temperature : -40 ~ +85°C B. Cycle : 100 cycles C. Dwell time : 30minutes Measurement : at ambient temperature 24 hrs after test completion | A. No mechanical damage B. Impedance value should be within ± 20 % of the initial value |
| Operational Life | A. Temperature : 85°C ± 5°C B. Test time : 1000 hrs C. Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion | A. No mechanical damage B. Impedance value should be within ± 20 % of the initial value |
| Biased Humidity | A. Temperature : 40 ± 2°C B. Humidity : 90 ~ 95 % RH C. Test time : 1000 hrs D. Apply current : full rated current Measurement : at ambient temperature 24 hrs after test completion | A. No mechanical damage B. Impedance value should be within ± 20 % of the initial value |
| Resistance to Solder Heat | A. Solder temperature : 260 ± 5°C B. Flux : Rosin C. DIP time : 10 ± 1 sec | A. More than 95 % of terminal electrode should be covered with new solder B. No mechanical damage C. Impedance value should be within ± 20 % of the initial value |
| Steam Aging Test | A. Temperature : 93 ± 2°C B. Test time : 4 hrs C. Solder temperature : 235 ± 5°C D. Flux : Rosin E. DIP time : 5 ± 1 sec | More than 95 % of terminal electrode should be covered with new solder |