

Common Mode Filters(SMD) For High-speed Differential Signal Line

Conformity to RoHS Directive

TCM Series TCM1210, 2010 Types

FEATURES

- The sizes of TCM series are the smallest in industry.
TCM1210: L1.25×W1.0mm
TCM2010: L2.0×W1.0mm(2 circuits in one chip)
- By providing wide bandwidth (cutoff frequency: 3GHz) for differential mode, this product has almost no effect for high-speed differential signals and can suppress the radiated emission.
- This product contains no lead and supports lead-free soldering.

APPLICATIONS

- High speed interface(LVDS, IEEE1394 and USB2.0) in electronics devices.
- PDP/LCD/DLP/PJ TV, DVD player, notebook PCs, DVC, DSC, amusement machines, portable audio, digital cellular phones, etc.

TEMPERATURE RANGES

| | |
|-----------|--------------|
| Operating | -25 to +85°C |
|-----------|--------------|

PACKAGING STYLE AND QUANTITIES

| Type | Quantity |
|---------|------------------|
| TCM1210 | 4000 pieces/reel |
| TCM2010 | 4000 pieces/reel |

PRODUCT IDENTIFICATION

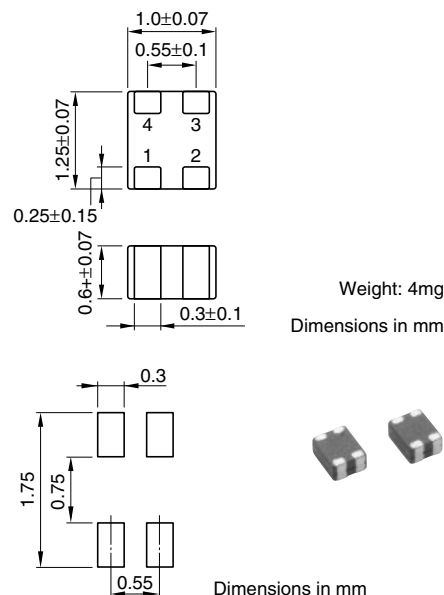
| | | | | | | | | |
|-----|------|---|-----|---|-----|---|-----|-----|
| TCM | 1210 | - | 900 | - | 2P | - | T | *** |
| (1) | (2) | | (3) | | (4) | | (5) | (6) |

| | | | | | | | | |
|-----|------|---|-----|---|-----|---|-----|-----|
| TCM | 2010 | - | 101 | - | 4P | - | T | *** |
| (1) | (2) | | (3) | | (4) | | (5) | (6) |

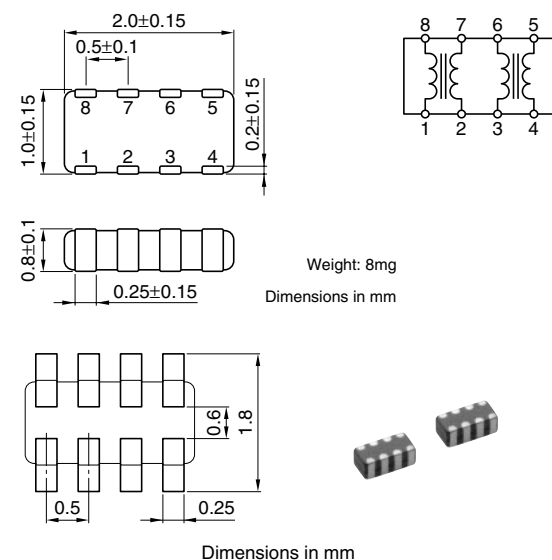
- Series name
- Dimensions
- Impedance[at 100MHz]
900: 90Ω
- Number of line
2P: 2-line
4P: 4-line
- Packaging style
T: ø180mm reel taping
- TDK internal code

SHAPES AND DIMENSIONS/CIRCUIT DIAGRAMS/RECOMMENDED PC BOARD PATTERNS

TCM1210 TYPE



TCM2010 TYPE



• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

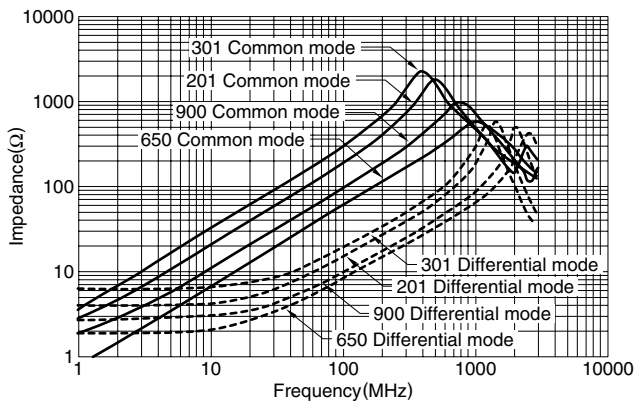
• All specifications are subject to change without notice.

ELECTRICAL CHARACTERISTICS

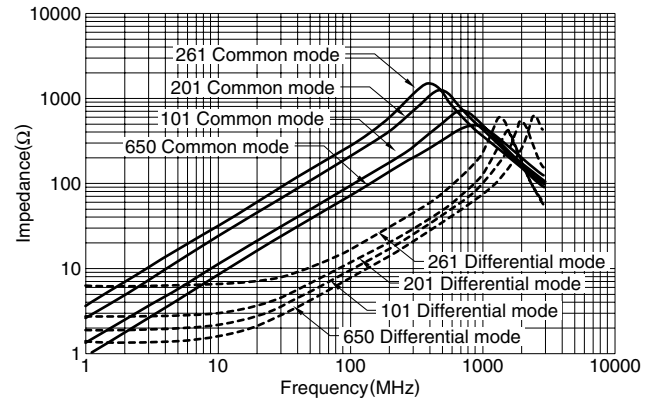
| Part No. | Common mode impedance (Ω) [100MHz] | | DC resistance (Ω)max. | Rated current Edc(mA)max. | Rated voltage Edc(V)max. | Insulation resistance (M Ω)min. |
|----------------|--|------|-----------------------------------|------------------------------|-----------------------------|--|
| | min. | typ. | | | | |
| TCM1210-650-2P | 50 | 65 | 1.5 | 100 | 10 | 10 |
| TCM1210-900-2P | 65 | 90 | 1.75 | 100 | 10 | 10 |
| TCM1210-201-2P | 150 | 200 | 2.7 | 100 | 10 | 10 |
| TCM1210-301-2P | 225 | 300 | 3.5 | 50 | 10 | 10 |
| TCM2010-650-4P | 50 | 65 | 1.5 | 100 | 10 | 10 |
| TCM2010-101-4P | 80 | 100 | 1.5 | 100 | 10 | 10 |
| TCM2010-201-4P | 160 | 200 | 2.0 | 100 | 10 | 10 |
| TCM2010-261-4P | 200 | 260 | 5.0 | 40 | 10 | 10 |

TYPICAL ELECTRICAL CHARACTERISTICS

TCM1210 TYPE

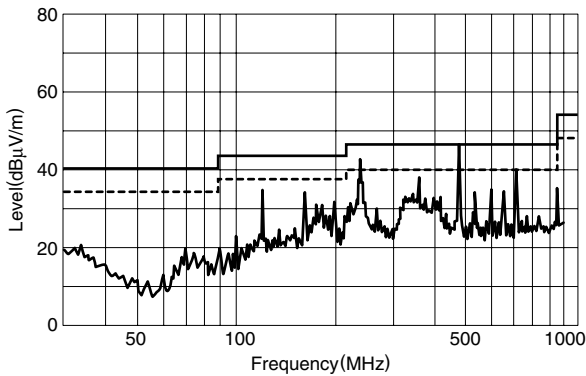


TCM2010 TYPE



TYPICAL EMC SUPPRESSION EFFECT

(1) Without EMC



(2) With TCM1210-900-2P

