

# 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 highspeeddifferential 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**

Туре	Quantity
TCM1210	4000 pieces/reel
TCM2010	4000 pieces/reel

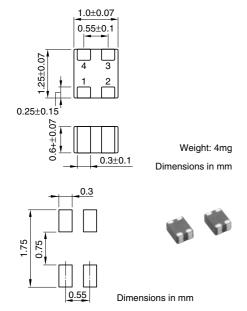
#### PRODUCT IDENTIFICATION

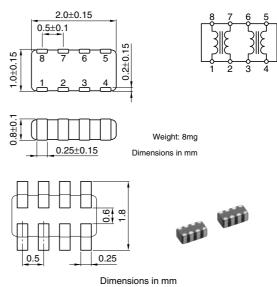
TCM	1210	-	900	-	2P	-	Τ	***
(1)	(2)		(3)		(4)		(5)	(6)

$$\frac{\text{TCM}}{(1)} \ \frac{2010}{(2)} \ - \ \frac{101}{(3)} \ - \ \frac{4P}{(4)} \ - \ \frac{T}{(5)} \ \frac{***}{(6)}$$

- (1) Series name
- (2) Dimensions
- (3) Impedance[at 100MHz] 900:  $90\Omega$
- (4) Number of line 2P: 2-line 4P: 4-line
- (5) Packaging styleT: ø180mm reel taping
- (6) 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.

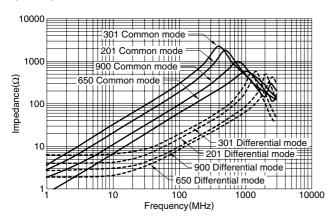
<sup>•</sup> All specifications are subject to change without notice.



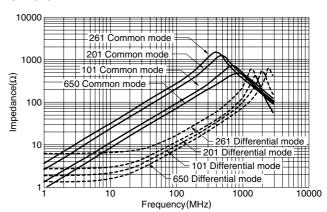
### **ELECTRICAL CHARACTERISTICS**

Part No.	Common n (Ω) [100Mł	node impedance Hz]	DC resistance (Ω)max.	Rated current Edc(mA)max.	Rated voltage Edc(V)max.	Insulation resistance $(M\Omega)$ min.
	min.	typ.		Euc(IIIA)IIIax.	Euc(v)max.	
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

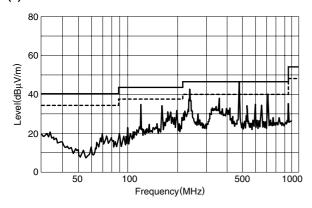
### TYPICAL ELECTRICAL CHARACTERISTICS TCM1210 TYPE



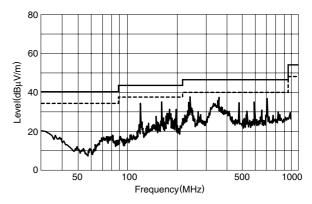
### TCM2010 TYPE



### TYPICAL EMC SUPPRESSION FEFFECT (1) Without EMC



### (2) With TCM1210-900-2P



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