

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# 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

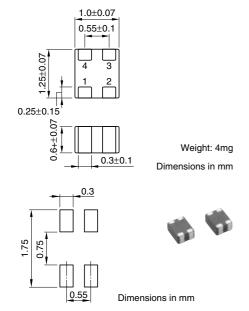
#### PRODUCT IDENTIFICATION

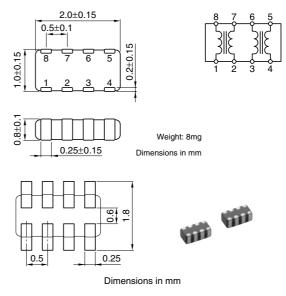
TCM	1210	-	900	-	2P	-	Т	***
(1)	(2)		(3)		(4)		(5)	(6)

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

- (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





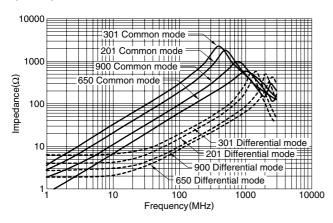
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.



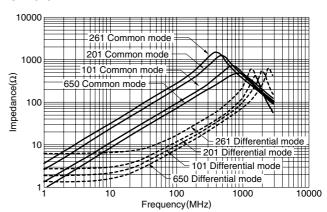
#### **ELECTRICAL CHARACTERISTICS**

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

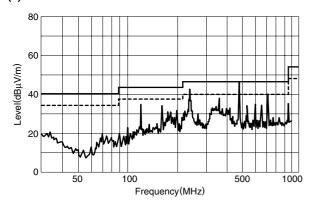
### TYPICAL ELECTRICAL CHARACTERISTICS TCM1210 TYPE



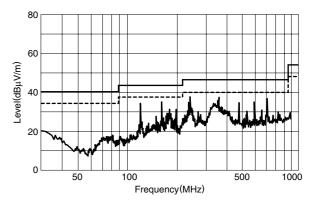
#### TCM2010 TYPE



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



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



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