



Chilisin Electronics Singapore Pte Ltd

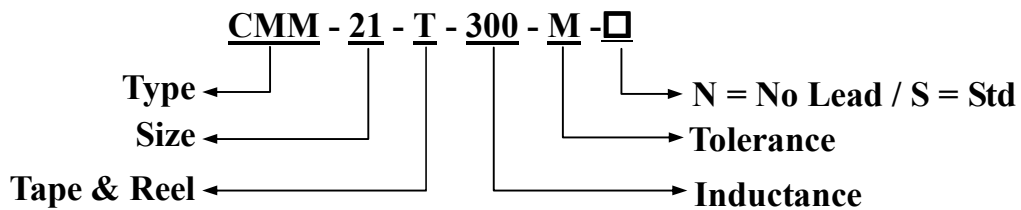
SMD Common Mode Choke, CMM Series



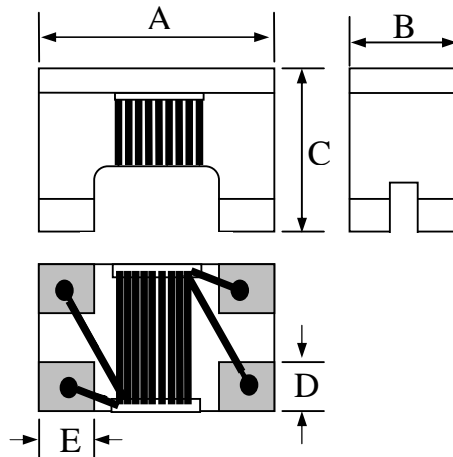
Feature:

- # Small Size and Low profile
- # High Common Mode Impedance at High Frequency
- # Wide range of Impedance to select,
- # Suitable for different signal line like USB 2.0, IEEE 1394 and Etc
Offer High speed Signal Without distortion, Due to its High Coupling

Ordering Code:



Dimension in mm:



Type	A	B	C	D	E
CMM - 21	2.05 ± 0.2	1.25 ± 0.2	1.25 ± 0.20	0.4	0.45
CMM - 31	3.2 ± 0.2	1.6 ± 0.2	1.9 ± 0.2	0.6	0.6

Electrical:

Part Number	Impedance at 100MHz	Rated Current
CMM-21 - Series	30 ohms ~ 370 ohms	450mA ~ 280mA
CMM-31 - Series	90 ohms ~ 2200 ohms	370mA ~ 200mA



Electrical:

Part Number	IZI (ohm) Typical	Tol. ±%	Test Freq. (MHz)	Rated Voltage (V)	Insulation Resistance MΩ(min)	DCR Ω max	IDC mA max
CMM-21-T-300-M-S	30	20	100	50	10	0.20	450
CMM-21-T-670-□-S	67	10 / 20	100			0.25	400
CMM-21-T-900-□-S	90	10 / 20	100			0.35	330
CMM-21-T-121-□-S	120	10 / 20	100			0.30	370
CMM-21-T-161-□-S	160	10 / 20	100			0.35	350
CMM-21-T-181-□-S	180	10 / 20	100			0.35	330
CMM-21-T-261-□-S	260	10 / 20	100			0.40	300
CMM-21-T-371-□-S	370	10 / 20	100			0.45	280
CMM-31-T-900-□-S	90	20	100	50	10	0.30	370
CMM-31-T-161-□-S	160	20	100			0.40	240
CMM-31-T-261-□-S	260	20	100			0.50	310
CMM-31-T-601-□-S	600	20	100			0.80	260
CMM-31-T-102-□-S	1000	20	100			1.00	230
CMM-31-T-222-□-S	2200	20	100			1.20	200

□ - Tolerance K= ±10% , M= ±20%

Operating Temperature Range = -40°C ~ +85°C

DCR : Single Wire Test value

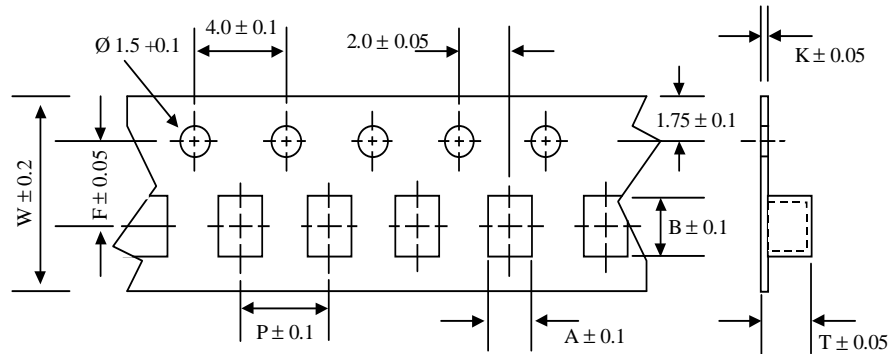


Chilisin Electronics Singapore Pte Ltd

SMD Common Mode Choke, CMM Series

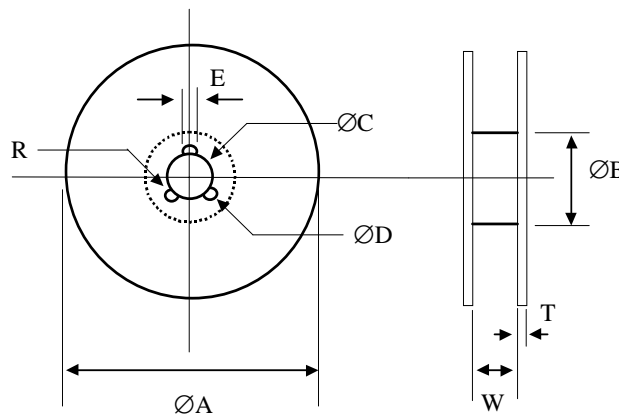


Tape Dimensions:



Type	A	B	T	W	P	F	K	Qty / Reel
CMM-21-T	1.76	3.5	1.40	8.0	4.0	3.5	0.22	2,000
CMM-31-T	1.76	3.5	2.05	8.0	4.0	3.5	0.22	2,000

Reel Dimensions:



ØA	ØB	ØC	ØD	E	W	T	R
178 ± 2	60 ± 1	13.0 ± 0.5	21.0 ± 0.8	2.0 ± 0.5	10.0 ± 1.0	2.0 ± 0.5	1.0

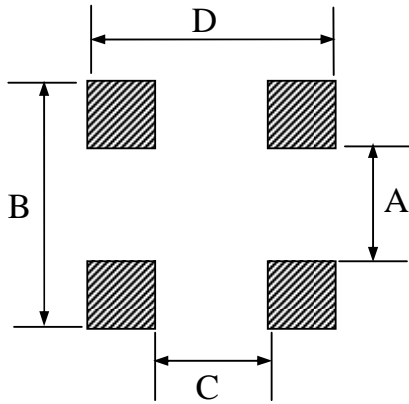


Chilisin Electronics Singapore Pte Ltd

SMD Common Mode Choke, CMM Series



Recommended Pattern:

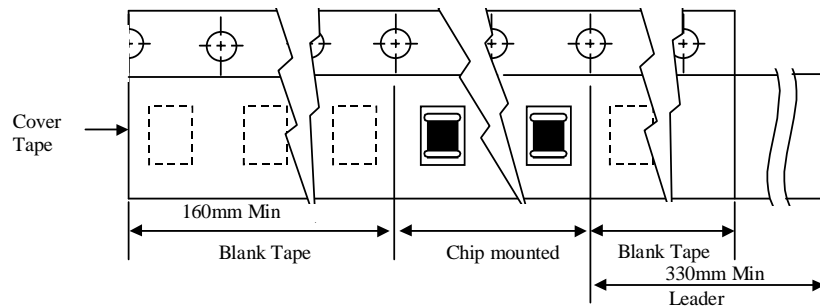


Type	A	B	C	D
CMM-21-T	0.5	1.2	0.8	2.6
CMM-31-T	0.4	1.6	1.6	3.7

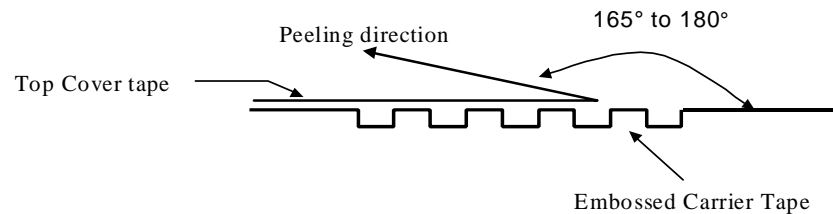
Tape Material:

Carrier Tape: Polystyrene

Cover Type : Polyethylene



Tape peeling:





Chilisin Electronics Singapore Pte Ltd

SMD Common Mode Choke, CMM Series



Environmental Performance

No.	Item	Specification	Test Condition															
1.	Temperature Cycle	Appearance : No Damage Z Change : Within +/- 20% RDC Change : Within Specification	One cycle: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature (°C)</th> <th>Time (min)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-25 ± 3</td> <td>30</td> </tr> <tr> <td>2</td> <td>25 ± 2</td> <td>3</td> </tr> <tr> <td>3</td> <td>85 ± 3</td> <td>30</td> </tr> <tr> <td>4</td> <td>25 ± 2</td> <td>3</td> </tr> </tbody> </table>	Step	Temperature (°C)	Time (min)	1	-25 ± 3	30	2	25 ± 2	3	3	85 ± 3	30	4	25 ± 2	3
Step	Temperature (°C)		Time (min)															
1	-25 ± 3		30															
2	25 ± 2		3															
3	85 ± 3	30																
4	25 ± 2	3																
2.	Humidity Resistance	Temperature : 40°C ± 2°C Relative Humidity : 90% ~ 95% Time : 1000 Hrs																
3.	Heat Life	Temperature : 85°C ± 3°C Relative Humidity : 20% Applied Current : Per Rated Current Time : 1000 Hrs																
4.	Cold Resistance	Temperature : -25°C ± 3°C Relative Humidity : 0% Time : 1000 Hrs																

Mechanical Performance

No.	Item	Specification	Test Condition
1.	Solder ability	More than 90% of the terminal electrode shall be covered with fresh solder	Pre heat: 150°C Pre heat Time: 1 minute Solder: H63A (Eutectic Solder) Solder Temperature: 230 ± 5°C Flux: Rosin Dip Time: 4 ± 1 seconds
2.	Resistance to Soldering Heat (Test)	No Damage on Appearance	Pre heat: 150°C Pre heat Time: 1 minute Solder: H63A (Eutectic Solder) Solder Temperature: 260 ± 5°C Flux: Rosin Dip Time: 10 ± 1 seconds
3.	Vibration (Random)	No Damage on Appearance IZI Change = within +/- 20% RDC=within specification	Amplitude : 1.5mm Frequency : 10~55~10 Hz/min Direction : X,Y,Z Duration : 2 Hours Per X,Y,Z

19, Woodlands Industrial Park E1 #03-07 Singapore 757719

Tel : 65 - 68921191 Fax : 65 - 67606760



Chilisin Electronics Singapore Pte Ltd

SMD Common Mode Choke, CMM Series

