SPECIFICATION FOR APPROVAL

承　认　书

CUSTOMER 客户名称：	NUMBER 编　　号：
DESCRIPTION 品　　名：贴片共模滤波器	QUANTITY 数　　量：
PART NO. 型　　号：BCDM5020-SERIES	DATE 日　　期：
CUSTOMER PART NO. 客户料号：	NOTE 注　　解：

APPROVAL SIGNATURE 客户承认签章

APPROVED BY 核　准	Q.C.DEPT. 品　管	CHECKED BY 核　查	DRAWN BY 制　作

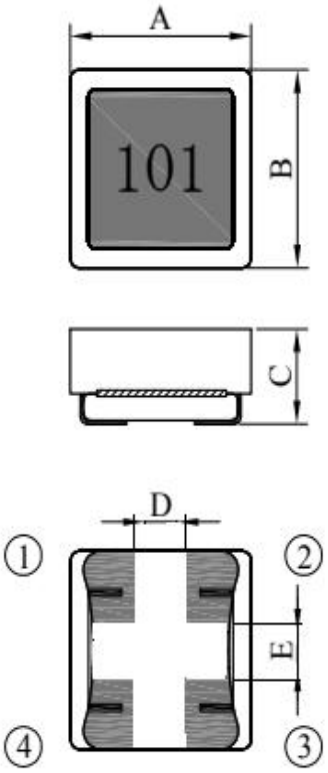
BCDM5020-SERIES

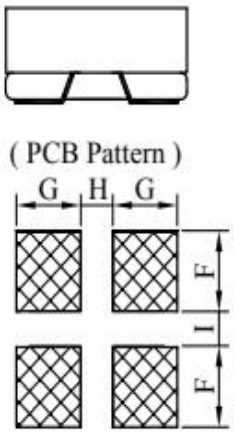
SMD COMMON MODE FILTER

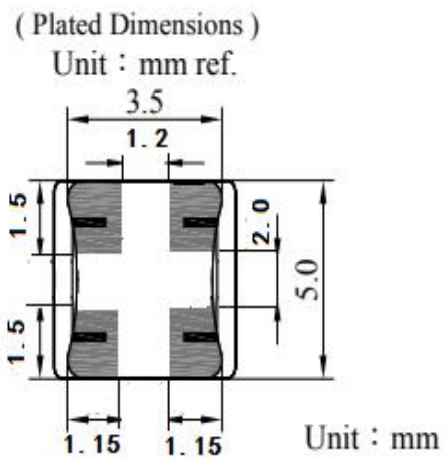
SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED

PC BOARD PATTERN(REFLOW SOLDERING)

◆ Dimensions

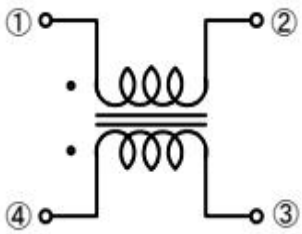






A	B	C	D	E	F	G	H	I
5.0±0.3	5.0±0.3	2.4±0.2	1.2±0.3	2.0±0.3	2.3 ref	1.6 ref	0.8 ref	1.0 ref

◆Schematics(Bottom)



No polarity

BCDM5020-SERIES
SMD COMMON MODE FILTER

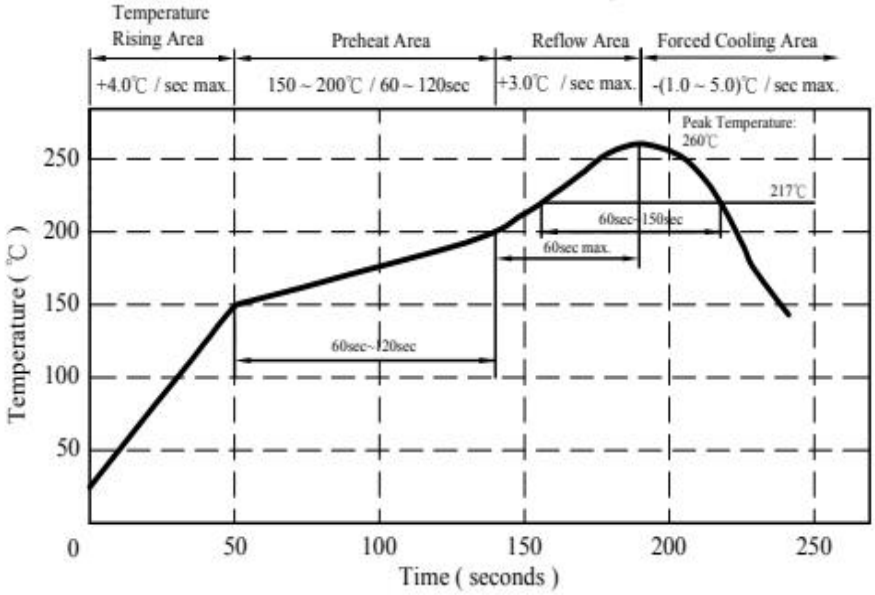
DESCRIPTION:

a . Ferrite drum core construction
b . Magnetically shielded
c . Enamelled copper wire: H class
d . Product weight: 0.20g (ref.)
e . Moisture sensitivity Level 1
f . Products comply with RoHS' requirements
g . Halogen free

GENERAL SPECIFICATION:

a . Storage temp.: -40℃ ----+125℃
b . Operating temp.: -40℃----+125℃ (Temp. rise included)
c . Resistance to solder heat: 260℃.10 secs.

Peak Temp: 260℃ max
Max. Peak Temp - 5℃: 30sec max.
Max time above 217℃ :
60sec~150sec max.



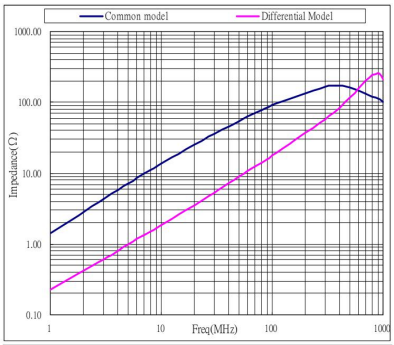
ELECTRICAL CHARACTERISTICS:

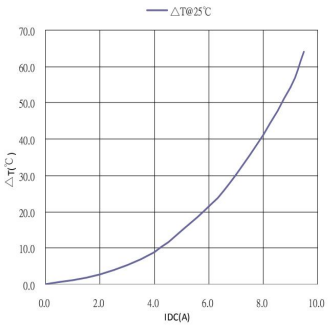
DWG. No.	Common mode impedance (at 100MHz) (Ω typ)	Inductance ref. (uH)	IDC (A)	RDC (max.) (mΩ)	Impedance (min.) (Ω)	Freq. range (MHz)
BCDM5020-101T	100	0.5	6	13	60	90 ~ 900
BCDM5020-251T	250	0.87	5	20	120	80 ~ 700
BCDM5020-501T	500	1.5	4	27	200	60 ~ 300
BCDM5020-102T	1000	2.2	2	34	400	50 ~ 200
BCDM5020-142T	1400	3.3	1.5	56	450	40 ~ 160

(1). Electrical specifications at 25℃
(2). Inductance Test Condition.: 100kHz / 0.1V
(3). Rated voltage 50 Vdc
(4). Withstand Voltage 125Vdc
(5). Insulation Resistance 10MΩ min.
(6). IDC base on Temp. rise 40℃ typ.

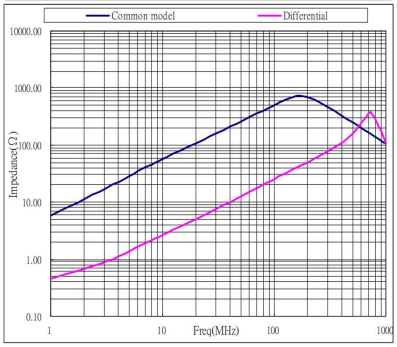
TYPICAL ELECTRICAL CHARACTERISTICS

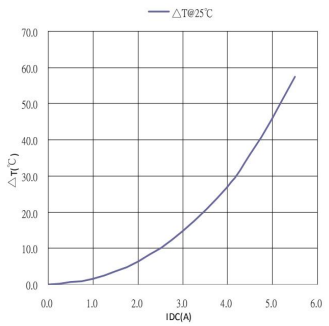
BCDM5020-101T



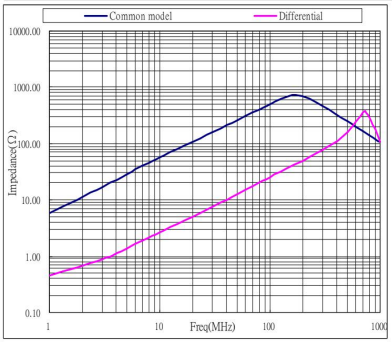


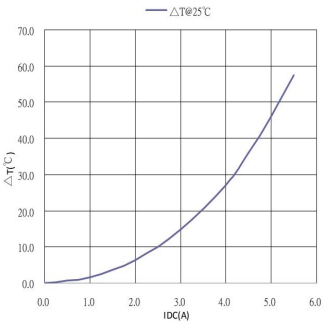
BCDM5020-251T



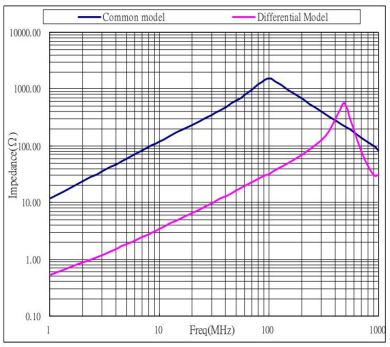


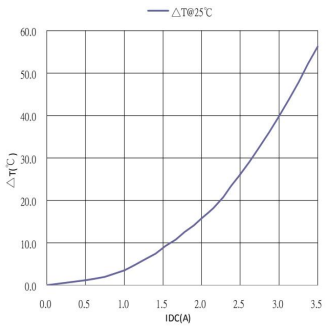
BCDM5020-501T



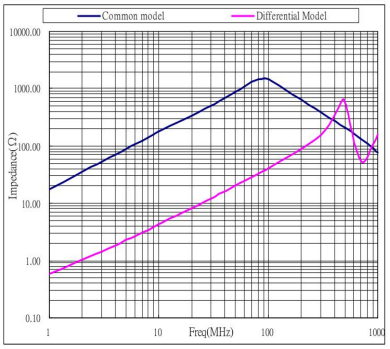


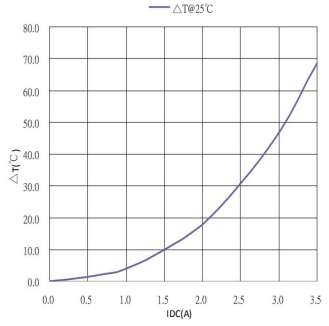
BCDM5020-102T





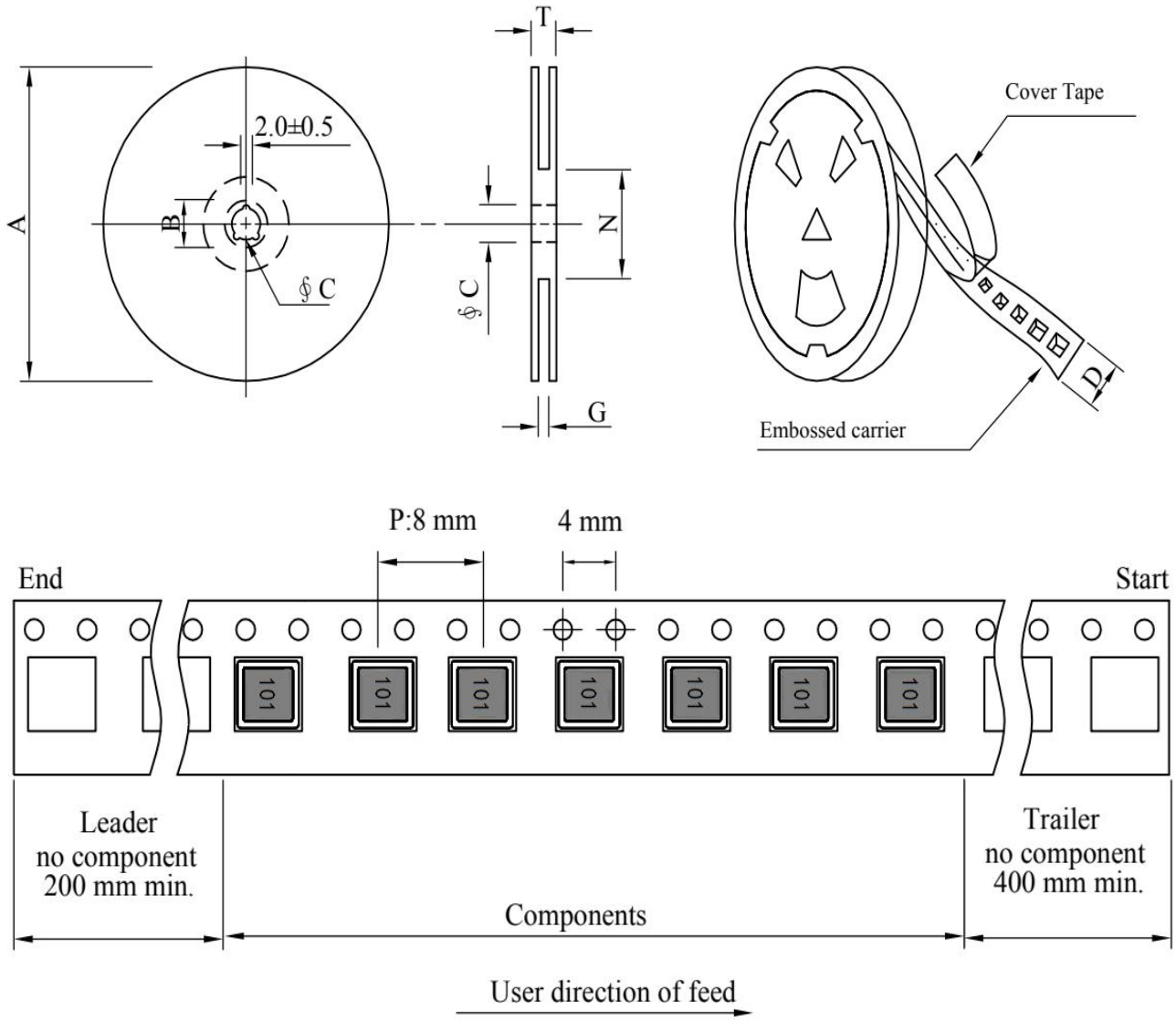
BCDM5020-142T





PACKAGING INFORMATION:

(1) Configuration



(2) Dimensions

Unit:mm

Style	A	B	C	D	G	N	T
13-12	330	21±0.8	13±0.5	12	14+0	50-0	18.4

(3) Q'TY & G.W. Per package

Code	Inner:Reel			OUter:Carton		
	QTY(pcs)	G.W.(g)	Style	QTY(pcs)	G.W.(kg)	Size (cm)
B	3000	1000	13-12	24000	8	36×36×16

BCDM5020-SERIES
SMD COMMON MODE FILTER

RELIABILITY TEST:

Item	Reference document	Test Condition	Test Specification
1.High Temperature Exposure	MIL-STD-202 Method 108	1.Temperature:125±2℃ 2.Time:96±2 hours.	1.No mechanical or electrical damage. 2.Impedance shall not change more than ±50%.
2.Temperature Cycling	JESD22-A 104	1.Temperature: -40℃ ~+125℃ 2.Number of cycle:100 cycles 3.Dwell time:30 minutes	1.No mechanical or electrical damage. 2.Impedance shall not change more than ±50%.
3.Biased Humidity Test	MIL-STD-202 Method 103	1.Temperature：85±2 ℃ 2.Humidity: 85% RH. 3.Time:96±2 Hours	1.No mechanical or electrical damage. more than ±50%.
4.Operational Life	JESD22-A 108	1.Temperature: (Temp. rise included) 2.Time:96±2 hours. 3.Rated current	1.No mechanical or electrical damage. 2.Impedance shall not change more than ±50%.
5.External Visua	JESD22-B 101 & MIL-STD-883 Method 2009	Inspect product constructions, marking and workmanship.	1.No pollution on the surface of 2.Clear marking. 3.No crac
6.Physical Dimensions	JESD22-B 100	Verify physical dimensions to the applicable product detail specification.	Per product specification standard
7.Resistance to solvents	MIL-STD-202 Method 215	Immerse into solvent for 3±0.5 minutes & brush 10 times for 3 cycles.	1.No body change in apperarance. 2.No marking blurred. 3.Impedance shall not change more than ±50%.
8.Vibration Test	MIL-STD-202 Method 204	1.Frequency and Amplitued : 10-2000-10 Hz, 1.5 mm. 2.Direction:X, Y, Z 3.Test duration:2 hours for each direction , 6 hours in total.	1.No mechanical or electrical damage. 2.Impedance shall not change more than ±50%.
9.Resistance To Soldering Heat Test	MIL-STD-202 Method 210 &J-STD020D.1	1.Highest temperature： 260±5 . ℃ 2.Time (temp.≧ 217℃) ：60~150 Seconds. 3.IR reflow times：3 times.	1.No mechanical or electrical damage. 2.Impedance shall not change more than ±50%.
10.Over load	JIS C 6436 & User SPEC.	1.Applied one and half rated current for a period of 5 minutes. 2.Rated current	No electrical or mechanical damage
11.Temperature Rise	JIS C 6436 & User SPEC.	1.Applied rated current for 10 minutes. 2.Temperature measure by digital thermometer. 3.Irms current	Surface temperature rise is less than 40℃ typ
12.Solderability Test	J-STD-002 & JESD22-B 102	1.Baking in pre-testing : 150±5℃ / 16Hours±30 min. 2.Peak temperature：240±5℃ 3.Time (temp.≧217℃) ：60~150 4.IR reflow times：1 time.	More than 95% soldering coverage min on terminations.
13.Electrical Characteriazation	MIL-STD-202 Method 304 & User SPEC.	1.Operating temperature：-40℃~125 ℃ 2.Room temperature：25℃.	1.No mechanical or electrical 2.Impedance shall not change more than ±50%.
14.Withstanding Voltage Test	MIL-STD-202 Method 301 & User SPEC.	1.DC: V (Winding to Winding) 2.Time：1minutes	1.During the test no breakdown. 2.No mechanical or electrical
15.Drop	CNS-C6354 & GB/T 2423.8	1.Products shall be mounted on SPEC. and dropped down from a height of 2.Drop total time：6 times (Every side of sample drop 2 time)	1. Adhesion on PCB shall be enough 2. Product appearance shall not break. 3. No electrical damage.
16.Terminal Test	IEC 60068-2-21	1.Apply push force to samples mounted on PCB. 2.Force of 1.8 kg for 60±1 seconds.	After test, inductors shall be no mechanical damage