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Cybermax Technology LLC

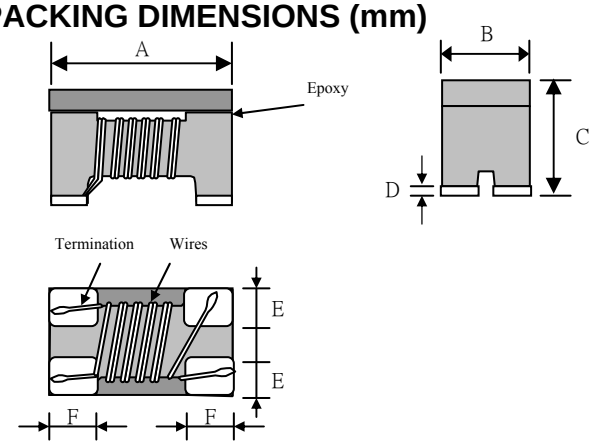
Version: 1.0

SPECIFICATION

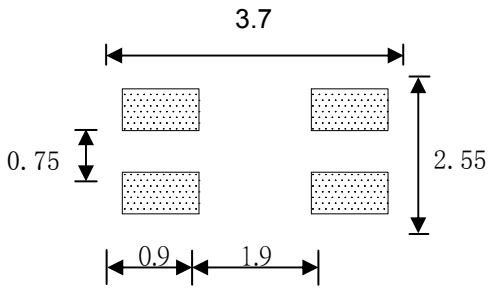
RoHS COMPLIANT

ITEM P/N	CM3225A-SERIES	TEST INSTRUMENT	4291B、4339B
PRODUCT	COMMON MODE CHOKE	TEST FREQUENCY	100 MHz / 0.5V

PACKING DIMENSIONS (mm)



Recommended Footprint(mm)



EXPLANATION OF PART NUMBERS

C	M	3	2	2	5	A	8	O	0	S
(1)			(2)			(3)	(4)			(5)

(1) Product Symbol: Chip common mode choke
(2) Shapes and dimensions: Length(A) x Width(B) x Thickness(C)
Dimensions in mm (inch)

TYPE	A	B	C	D	E	F
0806	0.85± 0.1	0.65± 0.1	0.45 max.	0.15 max.	0.27Typ.	0.22Typ.
1210	1.2 ± 0.2	1.0 ± 0.2	0.9 max.	0.15 max.	0.36Typ.	0.33Typ.
1608	1.6 ± 0.1	0.8 ± 0.1	1.1 ± 0.1	0.1 ± 0.1	0.25Typ.	0.33Typ.
2012	2.0 ± 0.2	1.2 ± 0.2	1.2 ± 0.2	0.2 ± 0.1	0.40Typ.	0.45Typ.
2520	2.5 ± 0.2	2.0 ± 0.2	1.8 ± 0.2	0.2 ± 0.1	0.4 ± 0.1	0.45 ± 0.1
3216	3.2 ± 0.2	1.6 ± 0.2	1.9 ± 0.2	0.2 ± 0.1	0.60Typ.	0.60Typ.
3225	3.2 ± 0.2	2.5 ± 0.2	2.2 ± 0.2	0.2 ± 0.1	0.80Typ.	0.65Typ.
4532	4.5 ± 0.2	3.2 ± 0.2	2.8 ± 0.2	0.2 ± 0.1	1.2Typ.	1.0Typ.

(3)Shielding Type :

A	1GHz	USB2.0/IEEE1394 Signal Line
B	3.5GHz	HDMI 1.4 CAT1
C	6GHz	HDMI 1.4 CAT2/Display Part
D	7.5GHz	HDMI 1.4 CAT2/USB3.0
E	10GHz	HDMI 1.4 CAT2/ USB3.0

(4) Impedance【 at 100MHz】

800:80Ω；601:600Ω；102:1000Ω

(5) Tolerance

S=±25%；M=±20%

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CHARACTERISTICS

RoHS COMPLIANT

ITEM P/N	CM3225A-SERIESTEST	INSTRUMENT	4291B、4339B
PRODUCT	COMMON MODE CHOKE	TEST FREQUENCY	100 MHz / 0.5V

ELECTRICAL CHARACTERISTICS

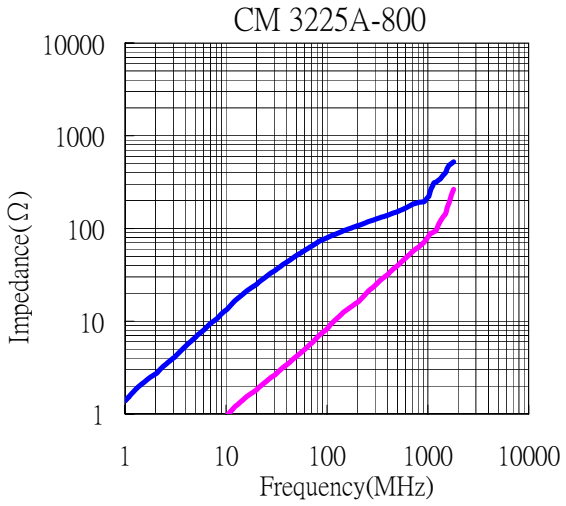
P/N	Z(Ω) Common Mode Impedance at 100MHz	DCR (Ω) [Max]	Rated current Idc(A) [Max]	Rated Voltage Vdc (V)Typical	Insulation Resistance IR (MΩ)Min.
CM3225A-800S	80	0.15	2	50	10
CM3225A-601S	600	0.25	1	50	10
CM3225A-102S	1000	0.35	1.2	50	10

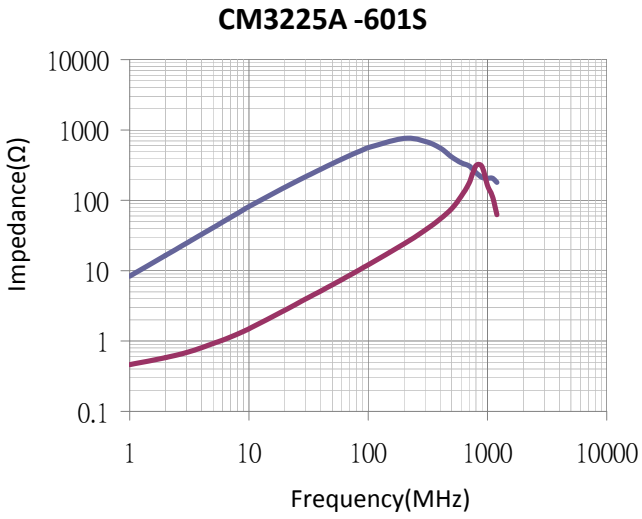
Operating temperature : -25 to +85℃

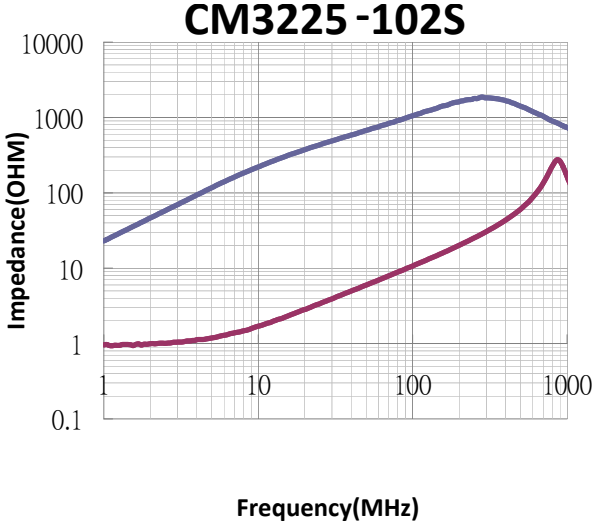
Storage temp. and humidity : -40 to +85℃ ,70%RH max

Typical Heat Rating DC Current would cause an approximately △T of 40℃

PERFORMANCE CURVES







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CHARACTERISTICS

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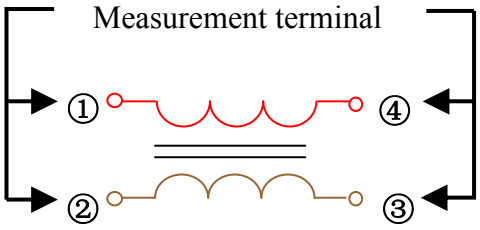
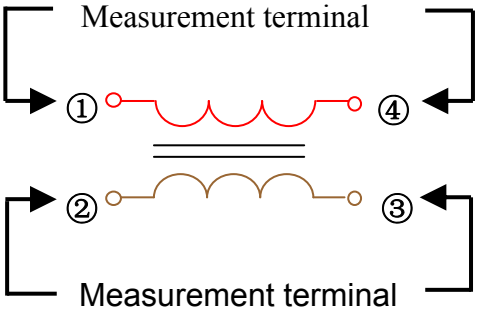
Test Equipment

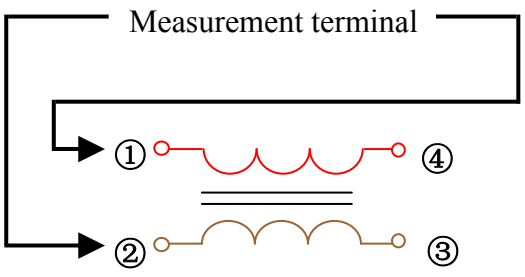
Impedance
Measured by using Agilent 4291A RF Impedance Analyzer.



DC Resistance Measurement terminal
Measured by using Chroma 16502 mill ohm meter.



Insulation Resistance
Measured by using Chroma 19073
Measurement voltage : 50v ,Measurement time : 60 sec.



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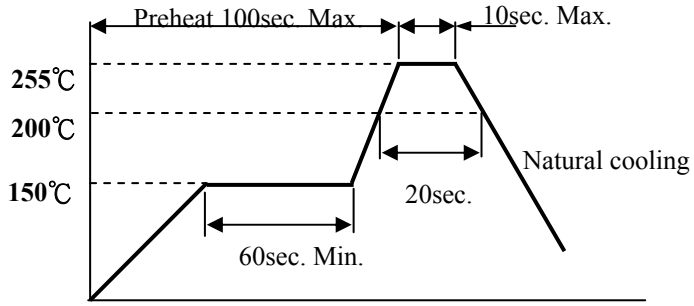
RELIABILITY

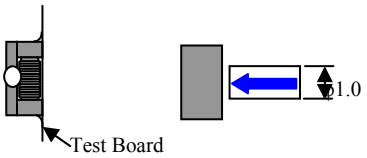
RoHS COMPLIANT

ITEM P/N	CM3225A-SERIES	TEST INSTRUMENT	4291B、4339B
PRODUCT	COMMON MODE CHOKE	TEST FREQUENCY	100 MHz / 0.5V

RECOMMENDED SOLDERING TEMP. GRAPH



MECHANICAL RELIABILITY

TEST	Specification & Requirement		Method Used
Solderability	The surface of terminal/pin tested shall be covered with new solder by 90%		Solder heat proof: Preheating: 150 ±10℃ 60 seconds Soldering: 230 ±5℃ for 3 ±1 sec
Solder Heat Resistance	Components should have not evidence of electrical and mechannical damage Impedance:within ±15% of initial value		Preheating:150℃ 60secs Solder temperature: 260±5℃ Flux:rosin Dip time:10±0.5 secs
Terminal strength	Series No.	F（Kg）	Solder a chip to test substrate and then laterally apply a force in the arrow direction 
	1608	0.5	
	2012	0.5	
	3216	1.0	
	3225	1.0	

ENDURANCE RELIABILITY

TEST	Specification & Requirement	Method Used
Thermal Shock	Impedance change within ± 15% Without mechanical damage	-65℃, (30 mins) -> room temp. (2 mins) -> 125℃, (30 mins) -> room temp. (2 mins) 50 cycles
Humidity Resistance	Impedance change within ± 15% Without mechanical damage	Apply IDC current @ 60℃ ambient Humidity: 90% Duration: 168 hrs
Low Temp. Storing	Impedance change within ± 15% Without mechanical damage	Storing Temp. -40 ±2 ℃ for total 168 +5/-0 hours
High Temp. Storing	Impedance change within ± 15% Without mechanical damage	Storing Temp. 125 ±2 ℃ for total 168 +5/-0 hours

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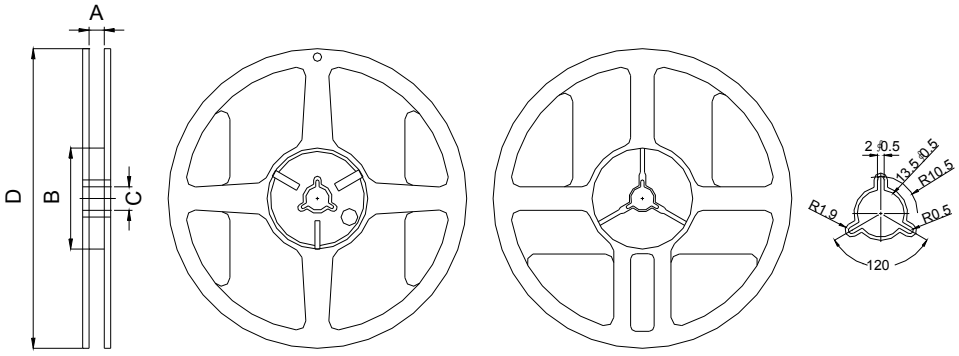
PACKING FOR SMD

RoHS COMPLIANT

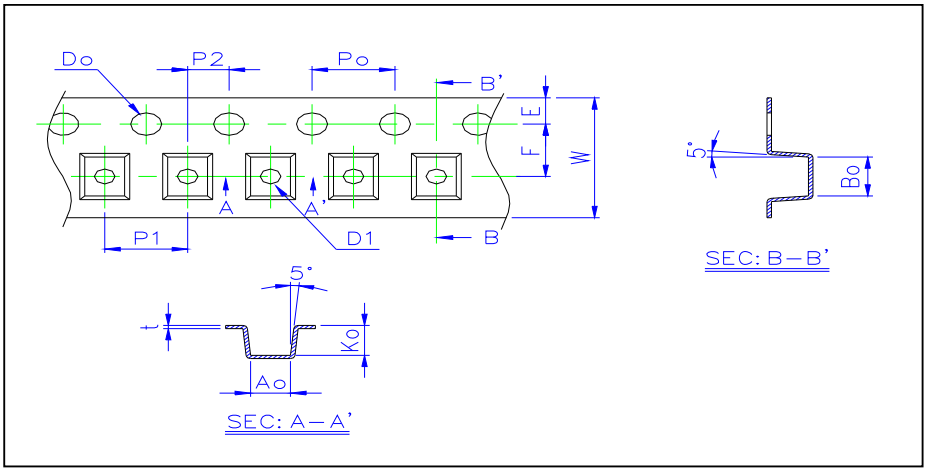
ITEM P/N	CM3225A-SERIES	TEST INSTRUMENT	4291B、4339B
PRODUCT	COMMON MODE CHOKE	TEST FREQUENCY	100 MHz / 0.5V

Reel Dimension & Tape Dimension



7"x8mm 7"x12mm

Type	A(mm)	B(mm)	C(mm)	D(mm)
7”x8mm	9.0±0.5	60±2	13.5±0.5	178±2
7”x12mm	13.5±0.5	60±2	13.5±0.5	178±2



Size	Ao(mm)	Bo(mm)	Ko(mm)	W(mm)	E(mm)	F(mm)	Po(mm)	P1(mm)	Do(mm)
0806	0.95±0.10	1.05±0.10	0.50±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
1210	1.15±0.10	1.40±0.10	0.93±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
1608	1.65±0.10	1.00±0.10	1.18±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
2012	2.35±0.10	1.50±0.10	1.45±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
2520	2.75±0.10	2.20±0.15	2.00±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.0±0.1
3216	3.50±0.10	1.88±0.10	2.10±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.5+0.1,-0
3225	3.60±0.10	2.80±0.10	2.20±0.10	8.00±0.20	1.75±0.10	3.50±0.05	4.0±0.05	4.0±0.10	1.0±0.1
4532	3.45±0.10	4.90±0.10	3.05±0.10	12.00±0.20	1.75±0.10	5.50±0.05	4.0±0.05	8.0±0.10	1.5+0.1,-0

Packaging Quantity(Unit：PCS)

Chip Size	0806	1210	1608	2012	2520	3216	3225	4532
8mm/ Reel	4000	3000	2000	2000	2000	2000	1000	500