

SMT CHIP INDUCTORS

- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic surface mounting

BOURNS®

CM322522/CM453232 Series

Bourns® SMT Chip Inductors

STANDARD SPECIFICATIONS

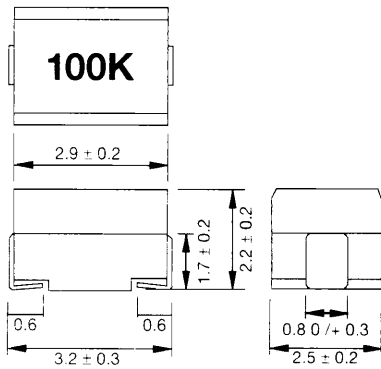
	CM32252	CM453232
Temperature rise	20°C max.	20°C max.
Ambient temperature	80°C max.	80°C max.
Operating temperature	-20 to +100°C	-25 to +100°C
Storage temperature	-40 to +100°C	-40 to +100°C
Terminal tensile strength	0.5 kg min.	1 kg min.
Current rating: Current cause inductance drop within 10%	0 to +55°C	0 to +50°C
Resistance to soldering heat	260°C for 10 sec	260°C for 10 sec
Resistance to solvent	Mil-Std-202 F	Mil-Std-202 F

These high reliable wirewound chip inductors for automatic mounting have been developed in response to the trend toward higher density mounting of parts in electric circuits.

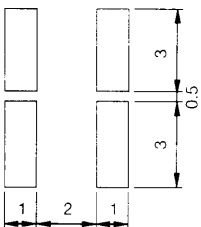
MATERIALS:

Core: Ferrite DR core
Wire: Enamelled copper wire
Terminal: Tinned copper flat
Encapsulate: Epoxy novolac molding compound

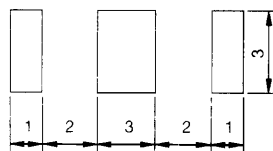
CM322522 (available 3rd quarter 1995)



(1) PARALLEL

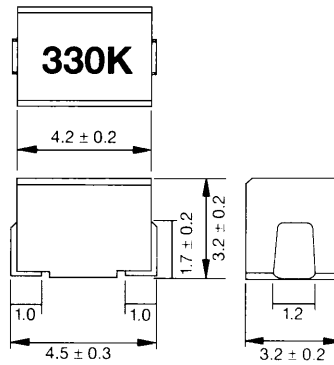


(2) SERIES

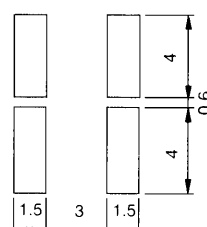


DIMENSIONS IN MM

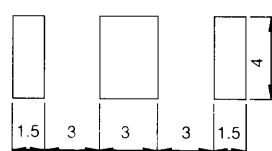
CM453232



(1) PARALLEL



(2) SERIES



CM322522/CM453232 Series

Bourns® SMT Chip Inductors

ELECTRICAL SPECIFICATIONS

BOURNS Part No.	Inductance (µH)	Q min.	Test freq. (MHz)	SRF min. (MHz)	RDC max. (Ω)	IDC (mA)
CM322522 - R10M	0.10 ±20%	30	25.2	520	0.20	450
- R12M	0.12 ±20%	30	25.2	500	0.22	450
- R15M	0.15 ±20%	30	25.2	450	0.25	450
- R18M	0.18 ±20%	30	25.2	400	0.28	450
- R22M	0.22 ±20%	30	25.2	350	0.32	450
- R27M	0.27 ±20%	30	25.2	320	0.36	450
- R33M	0.33 ±20%	30	25.2	300	0.40	450
- R39M	0.39 ±20%	30	25.2	250	0.45	450
- R47M	0.47 ±20%	30	25.2	220	0.50	450
- R56M	0.56 ±20%	30	25.2	180	0.55	450
- R68M	0.68 ±20%	30	25.2	160	0.60	450
- R82M	0.82 ±20%	30	25.2	140	0.65	450
- 1R0M	1.0 ±20%	30	7.96	120	0.70	400
- 1R2M	1.2 ±20%	30	7.96	100	0.75	390
- 1R5M	1.5 ±20%	30	7.96	85	0.85	370
- 1R8M	1.8 ±20%	30	7.96	80	0.90	350
- 2R2M	2.2 ±20%	30	7.96	75	1.00	320
- 2R7M	2.7 ±20%	30	7.96	70	1.10	290
- 3R3K	3.3 ±10%	30	7.96	60	1.20	260
- 3R9K	3.9 ±10%	30	7.96	55	1.30	250
- 4R7K	4.7 ±10%	30	7.96	50	1.50	220
- 5R6K	5.6 ±10%	30	7.96	47	1.60	200
- 6R8K	6.8 ±10%	30	7.96	43	1.80	180
- 8R2K	8.2 ±10%	30	7.96	40	2.00	170
- 100K	10.0 ±10%	30	2.52	36	2.10	150
- 120K	12.0 ±10%	30	2.52	33	2.50	140
- 150K	15.0 ±10%	30	2.52	30	2.80	130
- 180K	18.0 ±10%	30	2.52	27	3.30	120
- 220K	22.0 ±10%	30	2.52	25	3.70	110
- 270K	27.0 ±10%	30	2.52	20	5.00	80
- 330K	33.0 ±10%	30	2.52	17	5.60	70
- 390K	39.0 ±10%	30	2.52	16	6.40	65
- 470K	47.0 ±10%	30	2.52	15	7.00	60
- 560K	56.0 ±10%	30	2.52	13	8.00	55
- 680K	68.0 ±10%	30	2.52	12	9.00	50
- 820K	82.0 ±10%	30	2.52	11	10.00	45
- 101K	100 ±10%	20	0.796	10	10.00	40
- 121K	120 ±10%	20	0.796	10	11.00	70
- 151K	150 ±10%	20	0.796	8	15.00	65
- 181K	180 ±10%	20	0.796	7	17.00	60
- 221K	220 ±10%	20	0.796	7	21.00	50

CM322522 available 3rd quarter 1995

Specifications are subject to change without notice.

CM322522/CM453232 Series

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ELECTRICAL SPECIFICATIONS

BOURNS Part No.	Inductance (µH)	Q min.	Test freq. (MHz)	SRF min. (MHz)	RDC max. (Ω)	IDC (mA)
CM453232 - R10M	0.10 ±20%	35	25.2	300	0.18	800
- R12M	0.12 ±20%	35	25.2	280	0.20	770
- R15M	0.15 ±20%	35	25.2	250	0.22	730
- R18M	0.18 ±20%	35	25.2	220	0.24	700
- R22M	0.22 ±20%	40	25.2	200	0.25	665
- R27M	0.27 ±20%	40	25.2	180	0.26	635
- R33M	0.33 ±20%	40	25.2	165	0.28	605
- R39M	0.39 ±20%	40	25.2	150	0.30	575
- R47M	0.47 ±20%	40	25.2	145	0.32	545
- R56M	0.56 ±20%	40	25.2	140	0.36	520
- R68M	0.68 ±20%	40	25.2	135	0.40	500
- R82M	0.82 ±20%	40	25.2	130	0.45	475
- 1R0K	1.0 ±10%	50	7.96	100	0.50	450
- 1R2K	1.2 ±10%	50	7.96	80	0.55	430
- 1R5K	1.5 ±10%	50	7.96	70	0.60	410
- 1R8K	1.8 ±10%	50	7.96	60	0.65	390
- 2R2K	2.2 ±10%	50	7.96	55	0.70	380
- 2R7K	2.7 ±10%	50	7.96	50	0.75	370
- 3R3K	3.3 ±10%	50	7.96	45	0.80	355
- 3R9K	3.9 ±10%	50	7.96	40	0.90	330
- 4R7K	4.7 ±10%	50	7.96	35	1.00	315
- 5R6K	5.6 ±10%	50	7.96	33	1.10	300
- 6R8K	6.8 ±10%	50	7.96	27	1.20	285
- 8R2K	8.2 ±10%	50	7.96	25	1.40	270
- 100K	10.0 ±10%	50	2.52	20	1.60	250
- 120K	12.0 ±10%	50	2.52	18	2.00	225
- 150K	15.0 ±10%	50	2.52	17	2.50	200
- 180K	18.0 ±10%	50	2.52	15	2.80	190
- 220K	22.0 ±10%	50	2.52	13	3.20	180
- 270K	27.0 ±10%	50	2.52	12	3.60	170
- 330K	33.0 ±10%	50	2.52	11	4.00	160
- 390K	39.0 ±10%	50	2.52	10	4.50	150
- 470K	47.0 ±10%	50	2.52	10	5.00	140
- 560K	56.0 ±10%	50	2.52	9.0	5.50	135
- 680K	68.0 ±10%	50	2.52	9.0	6.00	130
- 820K	82.0 ±10%	50	2.52	8.0	7.00	120
- 101K	100 ±10%	40	0.796	8.0	8.00	110
- 121K	120 ±10%	40	0.796	6.0	8.00	110
- 151K	150 ±10%	40	0.796	5.0	9.00	105
- 181K	180 ±10%	40	0.796	5.0	9.50	102

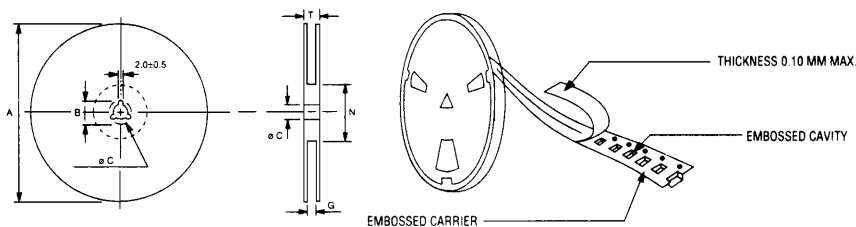
CM322522/CM453232 Series

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ELECTRICAL SPECIFICATIONS

BOURNS Part No.	Inductance (µH)	Q min.	Test freq. (MHz)	SRF min. (MHz)	RDC max. (Ω)	IDC (mA)
CM453232- 221K	220 ±10%	40	0.796	4.0	10.0	100
- 271K	270 ±10%	40	0.796	4.0	12.0	92
- 331K	330 ±10%	40	0.796	3.5	14.0	85
- 391K	390 ±10%	40	0.796	3.0	18.0	80
- 471K	470 ±10%	40	0.796	3.0	26.0	62
- 561K	560 ±10%	30	0.796	3.0	30.0	50
- 681K	680 ±10%	30	0.796	3.0	30.0	50
- 821K	820 ±10%	30	0.796	2.5	35.0	30
- 102K	1000 ±10%	30	0.252	2.5	40.0	30

CARRIER TAPE REELS



REEL DIMENSIONS (MM)

Type	A	B	C	G	N	T
8mm	178	21.0 ±0.8	13.0 ±0.5	10	50°	14.4 + 0
12mm	178	21.0 ±0.8	13 ±0.5	14	50°	18.4 + 0

Materials: Paper, Plastics

CM322522: 2000 pcs./reel

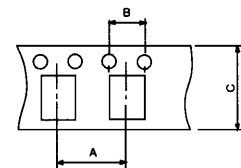
CM453232: 500 pcs./reel

PART NUMBER

CM 32 25 22 - 100 K
 (1) (2) (3) (4) (5) (6)

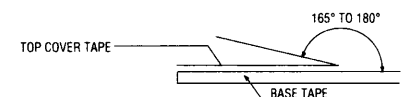
- (1) Chip coil molding type
- (2) Coil length: 3.2mm
- (3) Coil width: 2.5mm
- (4) Coil height: 2.2mm
- (5) Inductance: 10.0 µH
- (6) Tolerance: ±10%

TAPE DIMENSIONS (MM)



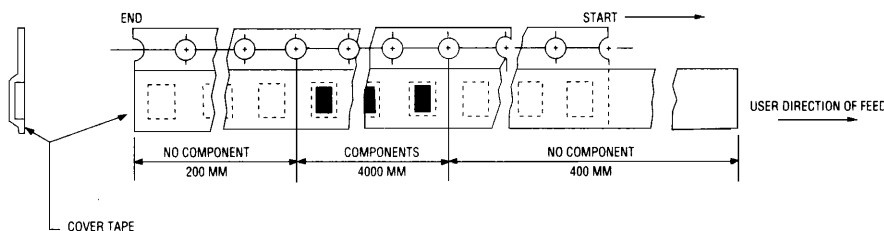
Type	A	B	C
CM32	4	4	8
CM45	8	4	12

STRENGTH OF COVER TAPE

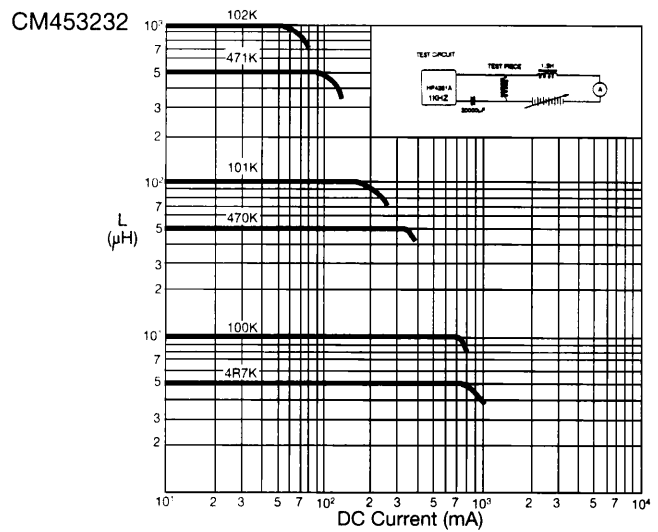
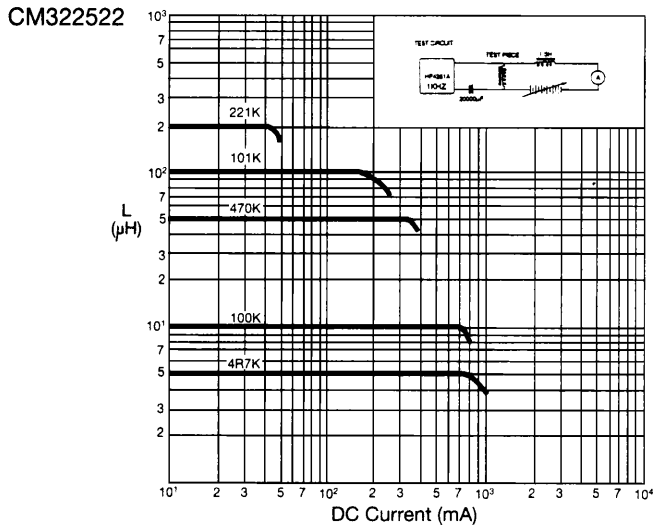


The force for tearing off cover tape is 10 to 130 grams in the arrow direction.

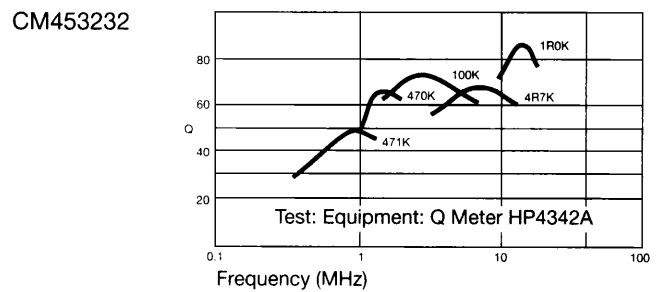
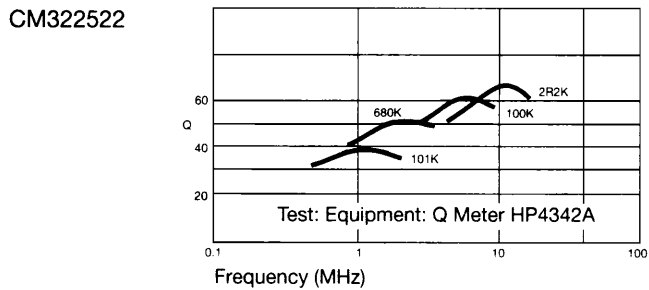
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INDUCTANCE VS. DC SUPERPOSITION CHARACTERISTICS



Q VS. FREQUENCY RESPONSE



INDUCTANCE CHANGE VS. TEMPERATURE RESPONSE

