

Features

- High resistance to heat and humidity
- Resistance to mechanical shock and pressure
- Accurate dimensions for automatic surface mounting
- Wide inductance range (1.0nH to 1000uH)

Applications

- Mobil phones
- Cellular phones
- CTV, VCR, HIC, FDD

CM45, CM32, CM25, CM20, CM16, CM10 SMT Chip Inductors

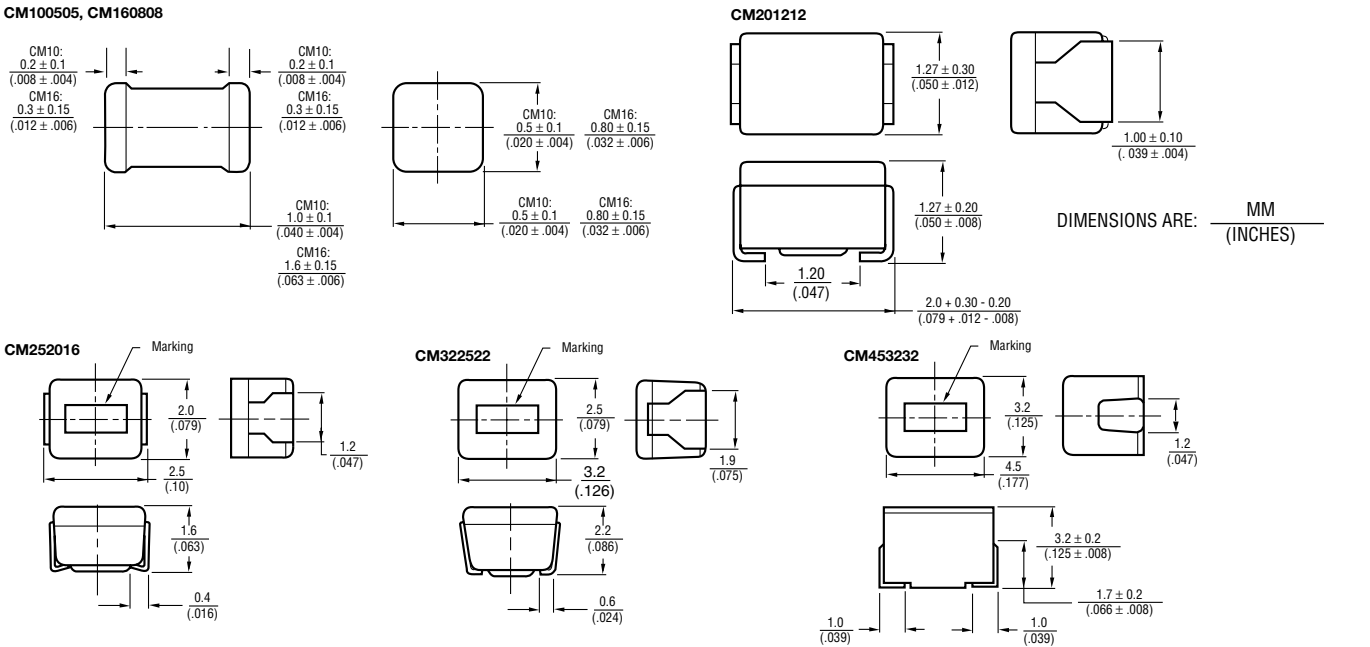
General Specifications

Temperature Rise	20°C max.
Ambient Temperature	80°C max.
Operating Temperature	-20°C to +100°C
Storage Temperature	-40°C to +100°C
Resistance to Soldering Heat	260°C, 5 seconds

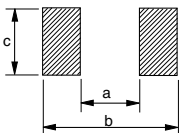
Materials

Core Material	
CM10, CM16	Alumina Ceramic
CM20	Polymer 3.9nH to 1000nH
CM25	Polymer 10nH to 180nH
CM32	Polymer 47nH to 180nH
Ferrite Core	
CM25	220nH to 100uH
CM32	220nH +
CM45	All
Coil Type	
CM10, CM16	Copper plating
CM20, CM25, CM32, CM45	Copper wire
Enclosure	
CM10, CM16	Resin
CM20, CM25, CM32, CM45	Epoxy resin

Product Dimensions



Recommended Land Pattern Dimensions



Model	a	b	c
CM10	0.5 to 0.6 (.019 to .023)	1.5 to 1.7 (.059 to .067)	0.5 to 0.6 (.019 to .023)
CM16	0.8 to 1.0 (.032 to .039)	2.0 to 2.6 (.079 to .102)	0.7 to 0.9 (.028 to .035)
CM20	1.0 to 1.2 (.039 to .047)	3.0 to 3.8 (.118 to .150)	0.9 to 1.3 (.028 to .051)
CM25	1.4 to 1.5 (.055 to .059)	3.5 to 4.0 (.138 to .157)	1.2 to 1.6 (.047 to .063)
CM32	1.6 to 2.0 (.063 to .079)	4.0 to 4.6 (.157 to .181)	1.9 to 2.4 (.075 to .094)
CM45	2.4 to 2.6 (.094 to .102)	5.5 to 6.0 (.217 to .236)	2.0 to 3.0 (.079 to .118)

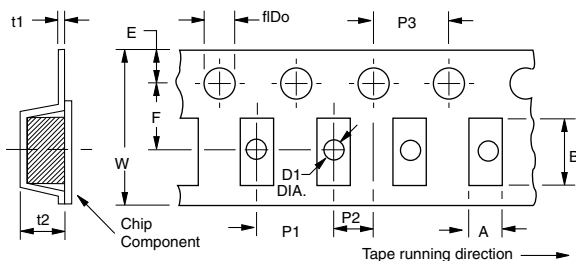
Specifications are subject to change without notice.

CM45, CM32, CM25, CM20, CM16, CM10 SMT Chip Inductors

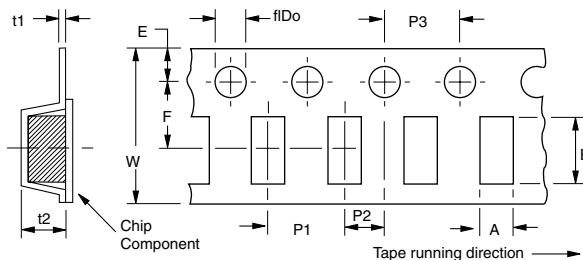


Packaging Specifications

CM10, CM16, CM20, CM25, CM32



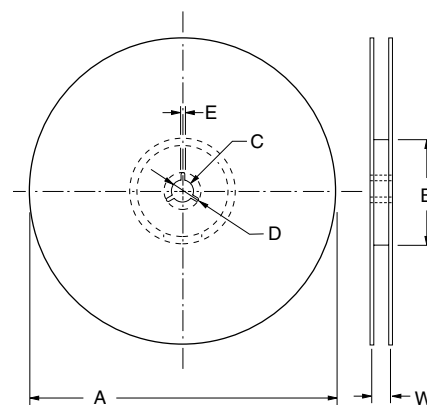
CM45



Model	A	B	W	F	E	P1	P2	P3	øD0	øD1	t1	t2
CM10	0.71 (.027)	1.21 (.047)	8.00 (.315)	3.50 (.138)	1.75 (.069)	4.00 (.157)	2.00 (.079)	4.00 (.157)	1.50 (.059)	0.60 (.024)	0.27 (.011)	1.20 (.047)
CM16	1.00 (.039)	1.80 (.071)	8.00 (.315)	3.50 (.138)	1.75 (.069)	4.00 (.157)	2.00 (.079)	4.00 (.157)	1.50 (.059)	0.60 (.024)	0.27 (.011)	1.20 (.047)
CM20	1.45 (.057)	2.25 (.089)	8.00 (.315)	3.50 (.138)	1.75 (.069)	4.00 (.157)	2.00 (.079)	4.00 (.157)	1.50 (.059)	1.00 (.039)	0.25 (.010)	1.55 (.061)
CM25	2.40 (.094)	2.90 (.114)	8.00 (.315)	3.50 (.138)	1.75 (.069)	4.00 (.157)	2.00 (.079)	4.00 (.157)	1.50 (.059)	1.10 (.043)	0.25 (.010)	1.85 (.073)
CM32	2.80 (.110)	3.60 (.142)	8.00 (.315)	3.50 (.138)	1.75 (.069)	4.00 (.157)	2.00 (.079)	4.00 (.157)	1.50 (.059)	—	0.25 (.010)	2.40 (.094)
CM45	3.60 (.142)	4.90 (.193)	12.00 (.472)	5.50 (.217)	1.75 (.069)	8.00 (.315)	2.00 (.079)	4.00 (.157)	1.50 (.059)	—	0.30 (.012)	3.50 (.138)

Reel Dimensions

Model	A	B	C	D	E	W
CM10	178 (7.008)	60 min.	13 (.512)	21 (.827)	2 (.079)	9 (.354)
CM16	178 (7.008)	60 min.	13 (.512)	21 (.827)	2 (.079)	9 (.354)
CM20	178 (7.008)	60 min.	13 (.512)	21 (.827)	2 (.079)	9 (.354)
CM25	178 (7.008)	60 min.	13 (.512)	21 (.827)	2 (.079)	9 (.354)
CM32	178 (7.008)	60 min.	13 (.512)	21 (.827)	2 (.079)	9 (.354)
CM45	178 (7.008)	60 min.	13 (.512)	21 (.827)	2 (.079)	13 (.512)



Packaging

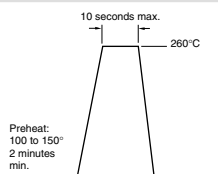
Model	Quantity	Weight
CM10	10000 pcs	150g
CM16	3000 pcs	90g
CM20	3000 pcs	90g

Model	Quantity	Weight
CM25	2000 pcs	100g
CM32	2000 pcs	190g
CM45	500 pcs	100g

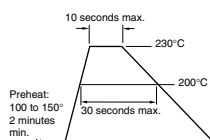
Soldering

Flow Soldering	260°C maximum for 5 seconds (2 wave solder method)
Infra-red	200°C for a maximum of 30 seconds. Peak of 240°C for a maximum of 5 seconds. If the solder does not reflow simultaneously under each terminal, there may be a misalignment of the component on the board. For this reason, it is recommended that the inductor be adhered to the board prior to reflow.
Vapor-phase	215°C for a maximum of 30 seconds.

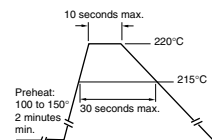
Flow Soldering



Infra-red Soldering



Vapor-phase Soldering



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Chip Inductors - CM160808, CM100505 Series Laser-cut Winding **BOURNS®**

0603 Size Part number	Inductance nH	Tolerance	Q min.	Test Frequency MHz	SRF min. MHz	RDC ohm max	IDC mA max
CM160808-1N5D	1.5	± 0.3nH	8	100	6000	0.07	500
CM160808-1N8D	1.8	± 0.3nH	8	100	6000	0.08	500
CM160808-2N2D	2.2	± 0.3nH	8	100	6000	0.09	500
CM160808-2N7D	2.7	± 0.3nH	8	100	6000	0.10	500
CM160808-3N3D	3.3	± 0.3nH	9	100	5500	0.12	500
CM160808-3N9J	3.9	±5%	9	100	5500	0.15	450
CM160808-4N7J	4.7	±5%	9	100	4800	0.17	450
CM160808-5N6J	5.6	±5%	9	100	4600	0.18	430
CM160808-6N8J	6.8	±5%	9	100	3550	0.20	430
CM160808-8N2J	8.2	±5%	9	100	3500	0.28	400
CM160808-10NJ	10	±5%	10	100	2800	0.32	400
CM160808-12NJ	12	±5%	10	100	2800	0.35	400
CM160808-15NJ	15	±5%	10	100	2500	0.41	350
CM160808-18NJ	18	±5%	10	100	2300	0.45	350
CM160808-22NJ	22	±5%	10	100	2000	0.50	300
CM160808-27NJ	27	±5%	10	100	2000	0.55	300
CM160808-33NJ	33	±5%	10	100	1800	0.60	300
CM160808-39NJ	39	±5%	11	100	1800	0.80	300
CM160808-47NJ	47	±5%	11	100	1800	0.95	250
CM160808-56NJ	56	±5%	12	100	1800	1.2	250
CM160808-68NJ	68	±5%	12	100	1500	1.3	250
CM160808-82NJ	82	±5%	12	100	1500	1.5	250
CM160808-R10J	100	±5%	12	100	1300	1.8	200

0402 Size Part number	Inductance nH	Tolerance	Q min.	Test Frequency MHz	SRF min. MHz	RDC ohm max	IDC mA max
CM100505-1N0D	1.00	±0.3nH	8	100	6000	0.05	400
CM100505-1N2D	1.20	±0.3nH	8	100	6000	0.06	400
CM100505-1N5D	1.50	±0.3nH	8	100	6000	0.07	400
CM100505-1N8D	1.80	±0.3nH	8	100	6000	0.08	400
CM100505-2N2D	2.20	±0.3nH	8	100	6000	0.09	400
CM100505-2N7D	2.70	±0.3nH	8	100	5500	0.10	400
CM100505-3N3D	3.30	±0.3nH	8	100	5500	0.12	400
CM100505-3N9D	3.90	±0.3nH	8	100	5200	0.15	360
CM100505-4N7D	4.70	±0.3nH	8	100	4800	0.17	360
CM100505-5N6D	5.60	±0.3nH	8	100	4600	0.19	340
CM100505-6N8J	6.80	± 5%	8	100	4000	0.30	320
CM100505-8N2J	8.20	± 5%	8	100	3500	0.35	320
CM100505-10NJ	10.00	± 5%	8	100	2800	0.41	320
CM100505-12NJ	12.00	± 5%	8	100	2800	0.45	320
CM100505-15NJ	15.00	± 5%	8	100	2500	0.60	240
CM100505-18NJ	18.00	± 5%	8	100	2200	0.70	240
CM100505-22NJ	22.00	± 5%	8	100	2000	0.80	200
CM100505-27NJ	27.00	± 5%	8	100	1800	1.2	200
CM100505-33NJ	33.00	± 5%	8	100	1800	1.4	170
CM100505-39NJ	39.00	± 5%	8	100	1800	1.7	150
CM100505-47NJ	47.00	± 5%	8	100	1800	2.1	140

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