



BOURNS®

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

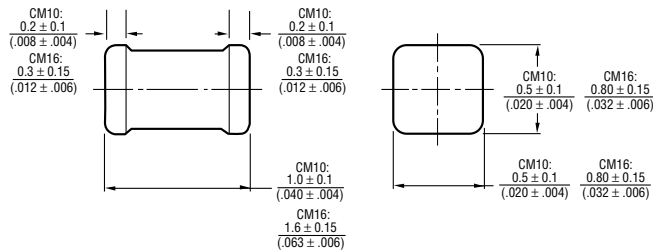
Temperature Rise	20°C max.
Ambient Temperature	80°C max.
Operating Temperature	-20°C to +100°C
Storage Temperature	-40°C to +100°C
Resistance to Soldering Heat	260°C, 5 seconds

Materials

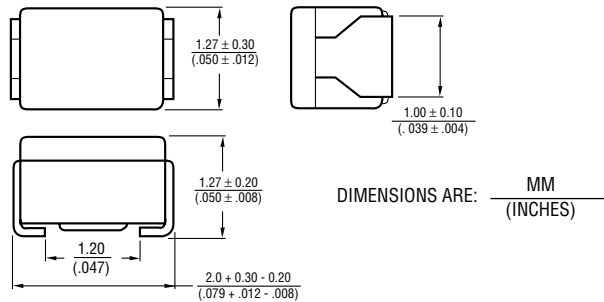
Core Material	
CM10, CM16	Alumina Ceramic
CM20	Polymer 3.9nH to 1000nH
CM25	Polymer 10nH to 180nH
CM32	Polymer 47nH to 180nH
Ferrite Core	
CM25	220nH to 100uH
CM32	220nH +
CM45	All
Coil Type	
CM10, CM16	Copper plating
CM20, CM25, CM32, CM45	Copper wire
Enclosure	
CM10, CM16	Resin
CM20, CM25, CM32, CM45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

Product Dimensions

CM100505, CM160808

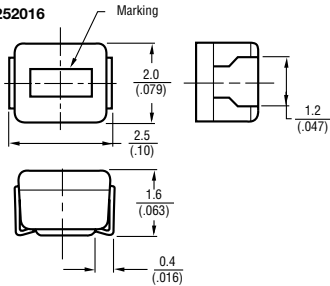


CM201212

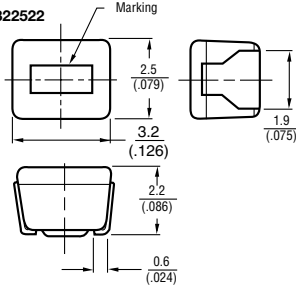


DIMENSIONS ARE: $\frac{\text{MM}}{\text{(INCHES)}}$

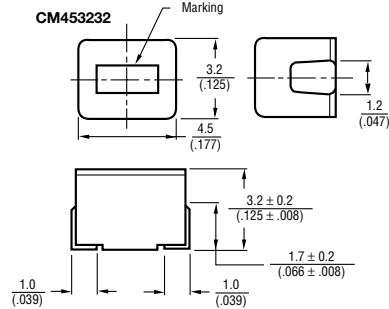
CM252016



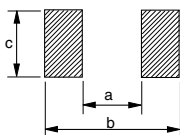
CM322522



CM453232



Recommended Land Pattern Dimensions



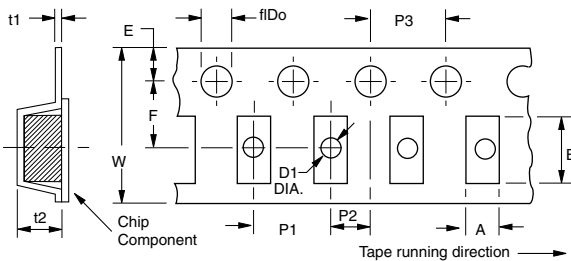
Model	a	b	c
CM10	0.5 to 0.6 (.019 to .023)	1.5 to 1.7 (.059 to .067)	0.5 to 0.6 (.019 to .023)
CM16	0.8 to 1.0 (.032 to .039)	2.0 to 2.6 (.079 to .102)	0.7 to 0.9 (.028 to .035)
CM20	1.0 to 1.2 (.039 to .047)	3.0 to 3.8 (.118 to .150)	0.9 to 1.3 (.028 to .051)
CM25	1.4 to 1.5 (.055 to .059)	3.5 to 4.0 (.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)

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

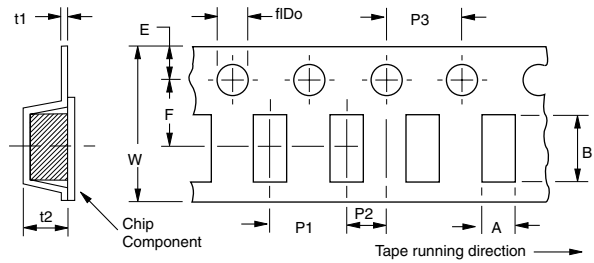


Packaging Specifications

CM10, CM16, CM20, CM25, CM32



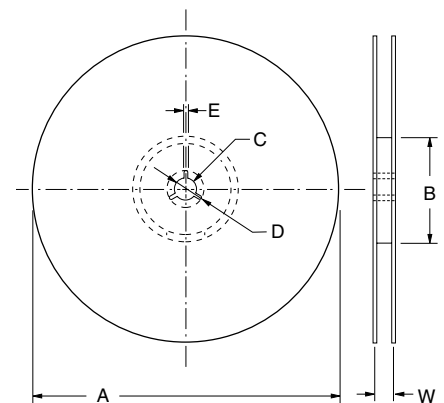
CM45



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

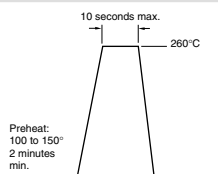
Model	Quantity	Weight
CM10	10000 pcs	150g
CM16	3000 pcs	90g
CM20	3000 pcs	90g

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

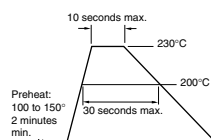
Soldering

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.

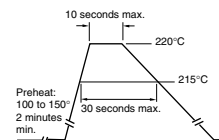
Flow Soldering



Infra-red Soldering



Vapor-phase Soldering



Specifications are subject to change without notice.

Chip Inductors - CM453232 Series Wirewound

BOURNS®

1812 Size Part number	Inductance uH	Tolerance	Q min.	Test Frequency MHz	SRF min. MHz	RDC ohm max	IDC mA max
CM453232-R10M	0.10	±20%	35	25.2	300	0.18	800
CM453232-R12M	0.12	±20%	35	25.2	280	0.2	770
CM453232-R15M	0.15	±20%	35	25.2	250	0.22	730
CM453232-R18M	0.18	±20%	35	25.2	220	0.24	700
CM453232-R22M	0.22	±20%	40	25.2	200	0.25	665
CM453232-R27M	0.27	±20%	40	25.2	180	0.26	635
CM453232-R33M	0.33	±20%	40	25.2	165	0.28	605
CM453232-R39M	0.39	±20%	40	25.2	150	0.30	575
CM453232-R47M	0.47	±20%	40	25.2	145	0.32	545
CM453232-R56M	0.56	±20%	40	25.2	140	0.36	520
CM453232-R68M	0.68	±20%	40	25.2	135	0.40	500
CM453232-R82M	0.82	±20%	40	25.2	130	0.45	475
CM453232-1R0K	1.0	±10%	50	7.96	100	0.50	450
CM453232-1R2K	1.2	±10%	50	7.96	80	0.55	430
CM453232-1R5K	1.5	±10%	50	7.96	70	0.60	410
CM453232-1R8K	1.8	±10%	50	7.96	60	0.65	390
CM453232-2R2K	2.2	±10%	50	7.96	55	0.70	380
CM453232-2R7K	2.7	±10%	50	7.96	50	0.75	370
CM453232-3R3K	3.3	±10%	50	7.96	45	0.80	355
CM453232-3R9K	3.9	±10%	50	7.96	40	0.90	330
CM453232-4R7K	4.7	±10%	50	7.96	35	1.00	315
CM453232-5R6K	5.6	±10%	50	7.96	33	1.10	300
CM453232-6R8K	6.8	±10%	50	7.96	27	1.2	285
CM453232-8R2K	8.2	±10%	50	7.96	25	1.4	270
CM453232-100K	10	±10%	50	2.52	20	1.6	250
CM453232-120K	12	±10%	50	2.52	18	2	225
CM453232-150K	15	±10%	50	2.52	17	2.5	200
CM453232-180K	18	±10%	50	2.52	15	2.8	190
CM453232-220K	22	±10%	50	2.52	13	3.2	180
CM453232-270K	27	±10%	50	2.52	12	3.6	170
CM453232-330K	33	±10%	50	2.52	11	4	160
CM453232-390K	39	±10%	50	2.52	10	4.5	150
CM453232-470K	47	±10%	50	2.52	10	5	140
CM453232-560K	56	±10%	50	2.52	9	5.5	135
CM453232-680K	68	±10%	50	2.52	9	6	130
CM453232-820K	82	±10%	50	2.52	8	7	120
CM453232-101K	100	±10%	40	2.52	8	8	110
CM453232-121K	120	±10%	40	0.796	6	8	110
CM453232-151K	150	±10%	40	0.796	5	9	105
CM453232-181K	180	±10%	40	0.796	5	9.5	102
CM453232-221K	220	±10%	40	0.796	4	10	100
CM453232-271K	270	±10%	40	0.796	4	12	92
CM453232-331K	330	±10%	40	0.796	3.5	14	85
CM453232-391K	390	±10%	40	0.796	3	18	80
CM453232-471K	470	±10%	40	0.796	3	26	62
CM453232-561K	560	±10%	30	0.796	3	30	50
CM453232-681K	680	±10%	30	0.796	3	30	50
CM453232-821K	820	±10%	30	0.796	2.5	35	30
CM453232-102K	1000	±10%	30	0.252	2.5	40	30