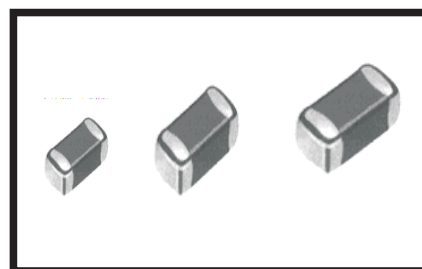


鐵氧體疊層片式電感 FERRITE CHIP INDUCTORS(CMI)

OPERATING TEMP.	1005	:-55~125℃
	1608	
	2012	:-40~+85℃



• 特征 FEATURES

- 體積小
- 漏磁小，不產生耦合，可靠性高
- 無引綫，不產生跟踪性，適合高密度表面貼裝
- 優良的可焊性及耐熱衝擊性，適合波峰焊及回流焊
- Miniature volume.
- No cross coupling between inductors due to low magnetic shield and high reliability.
- No lead, ideal for high density SMT installation, with no directionality.
- Superior solderability and resistance to soldering heat, Ideal for wave or reflow soldering.

• 應用 APPLICATIONS

- VCD/DVD、數碼相機、電腦、數字電視、機頂盒
- VCD/DVD、digital cameras、personal computers etc.

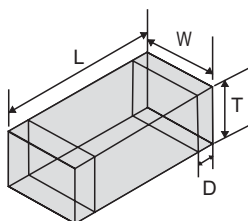
• 產品規格型號的表示方法 ORDERING CODE

CMI	201209	V	47N	K	T
①	②	③	④	⑤	⑥

① 產品代號 Product Code		② 規格尺寸(L × W × T) (mm) Dimensions		③ 材料代號 Material Code	④ 感量(μ H) Inductance		⑤ 誤差 Tolerance		⑥ 包裝方式 Packaging Style		
CMI	疊層片式電感 Multilayer Chip Inductors	100505	1.0 × 0.5 × 0.5	U	實例 Example 47N R10 1R0	0.047 0.10 1.0	K	±10%	T	卷帶盤裝 Tape & Reel	
		160808	1.6 × 0.8 × 0.8	V			M	±20%			
		201209	2.0 × 1.2 × 0.9	J			N	±30%	B	散裝 Bulk	
		201212	2.0 × 1.2 × 1.2	X							
		321609	3.2 × 1.6 × 0.9								
		321611	3.2 × 1.6 × 1.1		N = 0.0(nH) R = 0.0(μ H)						
		322513	3.2 × 2.5 × 1.3								
		451616	4.5 × 1.6 × 1.6								
		453215	4.5 × 3.2 × 1.5								

• 外形尺寸 SHAPE AND DIMENSIONS

Unit:mm(inch)



Part No.	L	W	T	D
100505 (0402)	1.0±0.15 (0.040±0.006)	0.5±0.15 (0.020±0.006)	0.5±0.15 (0.020±0.006)	0.25±0.10 (0.010±0.004)
160808 (0603)	1.6±0.2 (0.063±0.008)	0.8±0.2 (0.031±0.008)	0.8±0.2 (0.031±0.008)	0.3±0.2 (0.01±0.008)
201209 (0805)	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	0.9±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)
201212 (0805)	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	1.2±0.2 (0.047±0.008)	0.5±0.3 (0.020±0.012)
321611 (1206)	3.2±0.2 (0.126±0.008)	1.6±0.2 (0.063±0.008)	1.1±0.2 (0.043±0.008)	0.5±0.3 (0.020±0.012)
321609 (1206)	3.2±0.2 (0.126±0.008)	1.6±0.2 (0.063±0.008)	0.9±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)
322513 (1210)	3.2±0.2 (0.126±0.008)	2.5±0.2 (0.098±0.008)	1.3±0.2 (0.051±0.008)	0.5±0.3 (0.020±0.012)
451616 (1806)	4.5±0.2 (0.186±0.008)	1.6±0.2 (0.063±0.008)	1.6±0.2 (0.063±0.008)	0.5±0.3 (0.020±0.012)
453215 (1812)	4.5±0.2 (0.180±0.008)	3.2±0.2 (0.126±0.008)	1.5±0.2 (0.060±0.008)	0.5±0.3 (0.020±0.012)

• 電性能參數 ELECTRICAL CHARACTERISTICS

1005 TYPE

Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI100505V47NK	0.047	10	50	220	0.45	25
CMI100505V56NK	0.056	10	50	210	0.45	25
CMI100505V68NK	0.068	10	50	210	0.45	25
CMI100505V82NK	0.082	10	50	200	0.45	25
CMI100505VR10K	0.10	15	25	200	0.70	25
CMI100505VR12K	0.12	15	25	165	0.70	25
CMI100505VR15K	0.15	15	25	140	0.80	25
CMI100505VR18K	0.18	15	25	120	0.80	25
CMI100505VR22K	0.22	15	25	110	1.00	25
CMI100505VR27K	0.27	15	25	95	1.20	25
CMI100505VR33K	0.33	15	25	85	1.20	25
CMI100505VR39K	0.39	15	25	70	1.30	20
CMI100505VR47K	0.47	15	25	68	1.50	20
CMI100505VR56K	0.56	15	25	55	2.00	20
CMI100505VR68K	0.68	15	25	50	2.30	20
CMI100505VR82K	0.82	15	25	45	3.00	18
CMI100505U1R0K	1.0	20	10	40	0.90	25
CMI100505U1R2K	1.2	20	10	35	1.20	25
CMI100505U1R5K	1.5	20	10	30	1.30	20
CMI100505U1R8K	1.8	20	10	30	1.40	20
CMI100505U2R2K	2.2	20	10	28	1.70	20
CMI100505U2R7K	2.7	20	10	22	1.90	20
CMI100505U3R3K	3.3	20	10	20	2.00	20
CMI100505U3R9K	3.9	20	10	18	2.20	20
CMI100505X4R7K	4.7	20	10	15	2.50	18
CMI100505J5R6M	5.6	20	4	13	2.20	18
CMI100505J6R8M	6.8	20	4	11	2.40	18
CMI100505J8R2M	8.2	20	4	10	2.90	18
CMI100505J100M	10	20	2	9	3.10	10
CMI100505J120M	12	20	2	8	3.30	5
CMI100505J150M	15	20	1	8	3.50	5
CMI100505J180M	18	20	1	8	3.50	5

鐵氧體疊層片式電感
FERRITE CHIP INDUCTORS

1608 TYPE

Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI160808V47NK	0.047	15	50	260	0.20	50
CMI160808V56NK	0.056	15	50	260	0.20	50
CMI160808V68NK	0.068	15	50	250	0.20	50
CMI160808V82NK	0.082	15	50	245	0.20	50
CMI160808VR10K	0.10	20	25	240	0.25	50
CMI160808VR12K	0.12	20	25	205	0.30	50
CMI160808VR15K	0.15	20	25	180	0.30	50
CMI160808VR18K	0.18	20	25	165	0.30	50
CMI160808VR22K	0.22	20	25	150	0.40	50
CMI160808VR27K	0.27	20	25	136	0.45	50
CMI160808VR33K	0.33	20	25	125	0.50	50
CMI160808VR39K	0.39	20	25	110	0.60	50
CMI160808VR47K	0.47	20	25	105	0.70	50
CMI160808VR56K	0.56	20	25	95	0.70	50
CMI160808VR68K	0.68	20	25	90	0.90	50
CMI160808VR82K	0.82	20	25	85	1.00	50
CMI160808U1R0K	1.0	25	10	75	0.50	25
CMI160808U1R2K	1.2	25	10	65	0.55	25
CMI160808U1R5K	1.5	25	10	60	0.70	25
CMI160808U1R8K	1.8	25	10	55	0.75	25
CMI160808U2R2K	2.2	25	10	50	0.80	25
CMI160808U2R7K	2.7	25	10	45	0.90	15
CMI160808U3R3K	3.3	25	10	40	1.00	15
CMI160808U3R9K	3.9	25	10	35	1.30	15
CMI160808X4R7K	4.7	25	10	33	1.50	15
CMI160808X5R6K	5.6	12	4	22	1.55	5
CMI160808J6R8K	6.8	12	4	20	1.55	5
CMI160808J8R2K	8.2	12	4	18	1.65	5
CMI160808J100K/M	10	20	2	17	1.75	3
CMI160808J120K/M	12	20	2	15	1.85	3
CMI160808J150K/M	15	20	1	14	2.50	1
CMI160808J180K/M	18	20	1	13	2.70	1
CMI160808J220K/M	22	20	1	11	3.00	1
CMI160808J270K/M	27	20	1	10	3.10	1
CMI160808J330K/M	33	20	1	9	3.30	1

2012 TYPE

Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI201209V47NK	0.047	25	50	320	0.15	300
CMI201209V56NK	0.056	25	50	320	0.15	300
CMI201209V68NK	0.068	25	50	280	0.20	300
CMI201209V82NK	0.082	25	50	280	0.20	300
CMI201209VR10K	0.10	20	25	235	0.20	250
CMI201209VR12K	0.12	20	25	220	0.25	250
CMI201209VR15K	0.15	20	25	200	0.25	250
CMI201209VR18K	0.18	20	25	185	0.30	250
CMI201209VR22K	0.22	20	25	170	0.30	250
CMI201209VR27K	0.27	20	25	150	0.40	250
CMI201209VR33K	0.33	20	25	145	0.40	250
CMI201209VR39K	0.39	25	25	135	0.50	200
CMI201209VR47K	0.47	25	25	125	0.50	200
CMI201209VR56K	0.56	25	25	115	0.60	150
CMI201209VR68K	0.68	25	25	105	0.65	150
CMI201209VR82K	0.82	25	25	100	0.70	150
CMI201209U1R0K	1.0	35	10	75	0.40	50
CMI201209U1R2K	1.2	35	10	65	0.40	50
CMI201209U1R5K	1.5	35	10	60	0.40	50
CMI201209U1R8K	1.8	35	10	55	0.40	50
CMI201209U2R2K	2.2	35	10	50	0.60	50
CMI201209U2R7K	2.7	35	10	45	0.60	50
CMI201209U3R3K	3.3	35	10	41	0.60	50
CMI201209U3R9K	3.9	35	10	38	0.80	50
CMI201209U4R7K	4.7	35	10	35	0.90	30
CMI201209X5R6K	5.6	30	4	32	1.00	15
CMI201209X6R8K	6.8	30	4	29	1.05	15
CMI201209X8R2K	8.2	30	4	26	1.05	15
CMI201209X100K	10	30	2	24	1.15	15
CMI201209X120K	12	30	2	22	1.15	15
CMI201209J150K/M	15	25	1	19	1.15	5
CMI201209J180K/M	18	25	1	18	1.20	5
CMI201209J220K/M	22	25	1	16	1.20	5
CMI201209J270K/M	27	25	1	16	1.50	5
CMI201209J330K/M/N	33	25	1	16	1.50	5
CMI201212J390K/M/N	39	25	1	16	1.50	5
CMI201212J470K/M/N	47	25	1	15	1.70	5
CMI201212J560K/M/N	56	25	1	15	1.80	5

鐵氧體疊層片式電感
FERRITE CHIP INDUCTORS

3216 TYPE

Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI321609V47NK	0.047	30	50	320	0.15	300
CMI321609V56NK	0.056	30	50	320	0.20	300
CMI321609V68NK	0.068	30	50	280	0.25	300
CMI321609V82NK	0.082	30	50	280	0.25	300
CMI321609VR10K	0.10	25	25	235	0.25	250
CMI321609VR12K	0.12	25	25	220	0.25	250
CMI321609VR15K	0.15	25	25	200	0.25	250
CMI321609VR18K	0.18	25	25	185	0.30	250
CMI321609VR22K	0.22	25	25	170	0.30	250
CMI321609VR27K	0.27	25	25	150	0.30	250
CMI321609VR33K	0.33	25	25	145	0.30	250
CMI321609VR39K	0.39	30	25	135	0.50	200
CMI321609VR47K	0.47	30	25	125	0.50	200
CMI321609VR56K	0.56	30	25	115	0.50	150
CMI321609VR68K	0.68	30	25	105	0.50	150
CMI321609VR82K	0.82	30	25	100	0.60	150
CMI321609U1R0K	1.0	35	10	75	0.30	100
CMI321609U1R2K	1.2	35	10	65	0.40	100
CMI321609U1R5K	1.5	35	10	60	0.40	50
CMI321609U1R8K	1.8	35	10	55	0.40	50
CMI321609U2R2K	2.2	35	10	50	0.50	50
CMI321609U2R7K	2.7	35	10	45	0.50	50
CMI321609U3R3K	3.3	35	10	41	0.50	50
CMI321609U3R9K	3.9	35	10	38	0.60	50
CMI321609U4R7K	4.7	35	10	35	0.65	25
CMI321609U5R6K	5.6	35	4	32	0.80	25
CMI321609X6R8K	6.8	35	4	29	0.80	25
CMI321609X8R2K	8.2	35	4	26	0.80	25
CMI321609X100K	10	35	2	24	0.80	25
CMI321609X120K	12	35	2	22	0.90	15
CMI321609J150K/M	15	30	1	19	1.00	5
CMI321609J180K/M	18	30	1	18	1.00	5
CMI321609J220K/M	22	30	1	16	1.20	5
CMI321609J270K/M	27	30	1	14	1.20	5
CMI321609J330K/M	33	30	1	13	1.30	5
CMI321609J390K/M	39	30	1	13	1.30	5
CMI321611J470K/M	47	30	1	12	1.60	5
CMI321611J560K/M	56	30	1	12	1.80	5
CMI321611J680K/M	68	30	1	11	2.00	5
CMI321611J820K/M	82	30	1	11	2.40	5
CMI321611J101K/M/N	100	30	1	8	3.00	5
CMI321611J121K/M/N	120	30	1	8	3.20	5

3225 TYPE

Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI322513U1R0K	1.0	40	10	70	0.20	500
CMI322513U1R2K	1.2	40	10	70	0.20	500
CMI322513U1R5K	1.5	40	10	70	0.30	500
CMI322513U1R8K	1.8	40	10	70	0.30	500
CMI322513U2R2K	2.2	40	10	50	0.30	500
CMI322513U2R7K	2.7	40	10	50	0.30	500
CMI322513U3R3K	3.3	40	10	50	0.40	500
CMI322513U3R9K	3.9	40	10	30	0.40	500
CMI322513U4R7K	4.7	40	10	30	0.50	500
CMI322513U5R6K	5.6	35	4	30	0.60	450
CMI322513X6R8K	6.8	35	4	20	0.60	450
CMI322513X8R2K	8.2	35	4	20	0.70	400
CMI322513X100K	10	35	2	20	0.70	300
CMI322513X120K	12	35	2	20	0.70	300
CMI322513J150K/M	15	35	1	20	0.70	200
CMI322513J180K/M	18	35	1	10	0.70	200
CMI322513J220K/M	22	35	1	10	0.75	150
CMI322513J270K/M	27	35	1	10	0.80	150
CMI322513J330K/M	33	35	1	10	1.10	100
CMI322513J390K/M	39	35	1	10	1.30	100
CMI322513J470K/M	47	35	1	10	1.50	50
CMI322513J560K/M	56	35	1	5	1.60	50
CMI322513J680K/M	68	35	1	5	1.80	30
CMI322513J820K/M	82	35	1	5	2.00	30
CMI322513J101K/M/N	100	35	1	5	2.00	20
CMI322513J121K/M/N	120	35	1	5	2.20	20
CMI322513J151K/M/N	150	35	1	5	2.40	20
CMI322513J181K/M/N	180	35	1	5	2.60	10
CMI322513J221K/M/N	220	35	1	5	2.80	10

鐵氧體疊層片式電感 FERRITE CHIP INDUCTORS

4516 TYPE

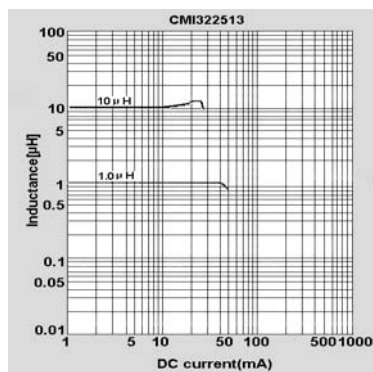
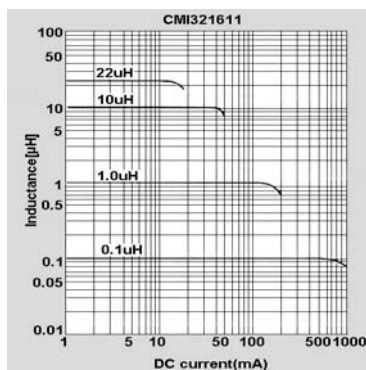
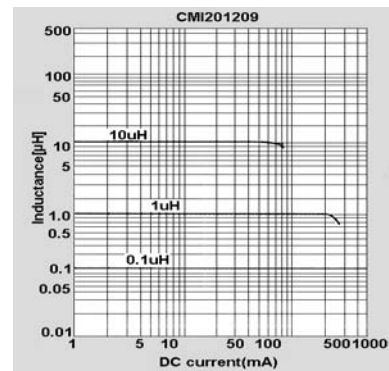
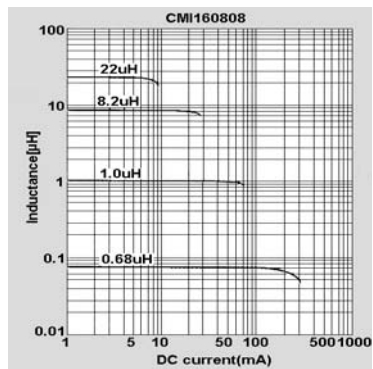
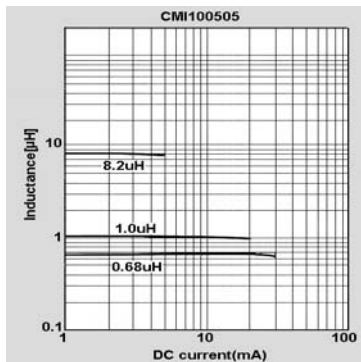
Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI451616U1R0K	1.0	40	10	80	0.25	500
CMI451616U1R2K	1.2	40	10	75	0.30	500
CMI451616U1R5K	1.5	40	10	60	0.30	500
CMI451616U1R8K	1.8	40	10	55	0.35	450
CMI451616U2R2K	2.2	40	10	50	0.35	400
CMI451616U2R7K	2.7	40	10	45	0.40	400
CMI451616U3R3K	3.3	40	10	40	0.45	400
CMI451616U3R9K	3.9	40	10	35	0.45	400
CMI451616U4R7K	4.7	40	10	30	0.50	300
CMI451616U5R6K	5.6	40	4	20	0.50	300
CMI451616U6R8K	6.8	35	4	20	0.60	300
CMI451616X8R2K	8.2	35	4	15	0.70	250
CMI451616X100K	10	35	2	15	0.70	250

4532 TYPE

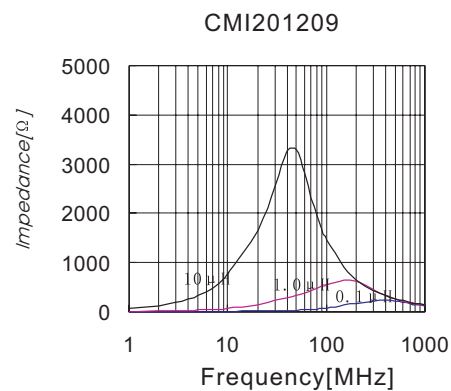
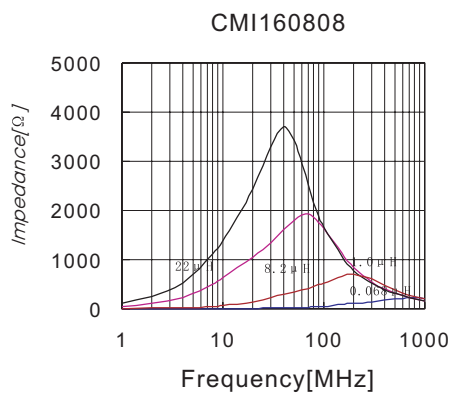
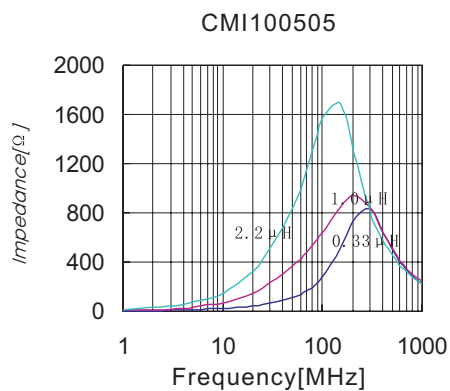
Part No.	Inductance (μ H)	Q (Min)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMI453215U1R0K	1.0	35	10	50	0.55	650
CMI453215U1R2K	1.2	35	10	50	0.55	650
CMI453215U1R5K	1.5	35	10	45	0.55	600
CMI453215U1R8K	1.8	35	10	45	0.65	600
CMI453215U2R2K	2.2	35	10	40	0.65	500
CMI453215U2R7K	2.7	35	10	40	0.70	500
CMI453215U3R3K	3.3	35	10	35	0.75	500
CMI453215U3R9K	3.9	35	10	35	0.80	500
CMI453215U4R7K	4.7	30	10	25	0.90	500
CMI453215U5R6K	5.6	30	4	20	0.90	500
CMI453215U 6R8K	6.8	30	4	18	1.00	500
CMI453215X8R2K	8.2	30	4	17	1.00	450
CMI453215X 100K	10	30	2	16	1.00	450
CMI453215X120K	12	35	2	15	1.00	450
CMI453215J150K/M	15	35	1	14	1.00	400
CMI453215J180K/M	18	35	1	13	1.00	400
CMI453215J220K/M	22	35	1	12	1.30	300
CMI453215J270K/M	27	35	1	10	1.30	300
CMI453215J330K/M	33	40	1	10	1.50	250
CMI453215J390K/M	39	40	1	10	1.50	250
CMI453215J470K/M	47	40	1	8	1.65	250
CMI453215J560K/M	56	40	1	8	1.80	250
CMI453215J680K/M	68	40	1	6	2.00	200
CMI453215J820K/M	82	40	1	6	2.30	200
CMI453215J101K/M/N	100	40	1	6	2.30	150
CMI453215J121K/M/N	120	40	1	6	2.50	150
CMI453215J151K/M/N	150	40	1	5	3.00	150
CMI453215J181K/M/N	180	40	1	5	3.00	150
CMI453215J221K/M/N	220	40	1	5	3.50	100
CMI453215J271K/M/N	270	40	1	5	4.00	50
CMI453215J331K/M/N	330	40	1	3	5.00	50

■ 鐵氧體疊層片式電感

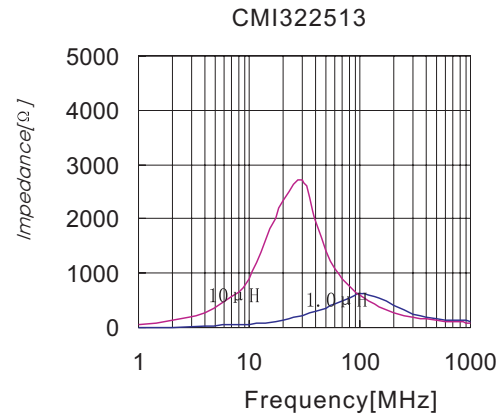
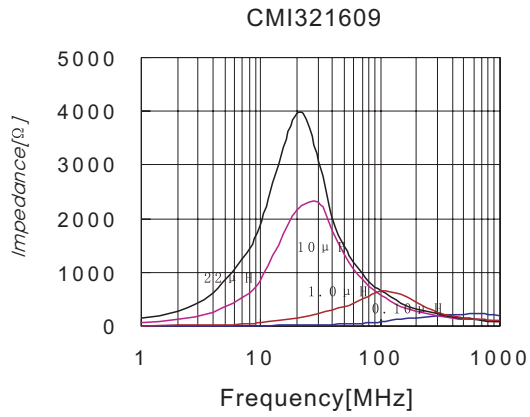
FERRITE CHIP INDUCTORS



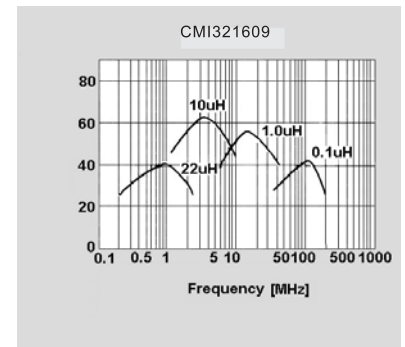
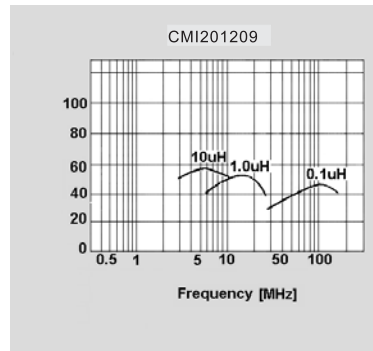
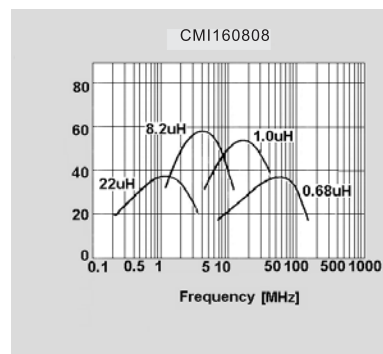
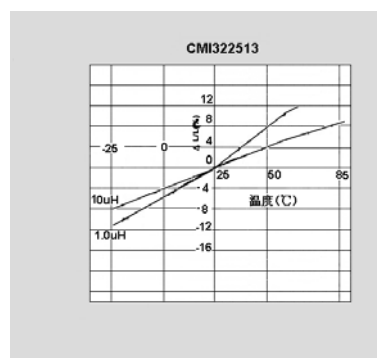
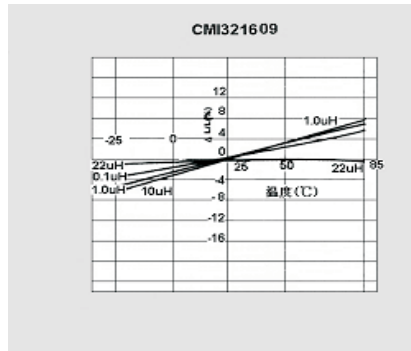
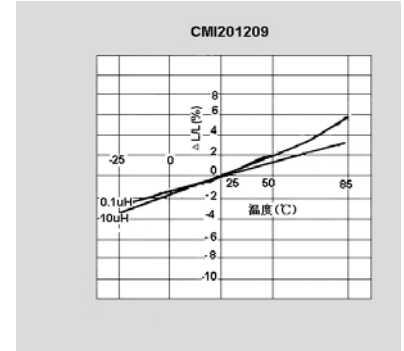
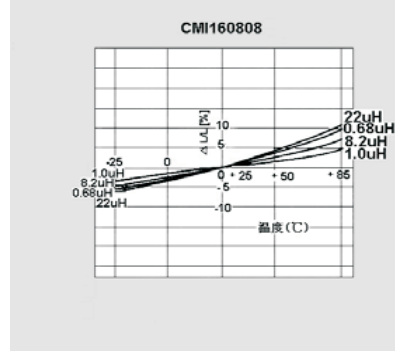
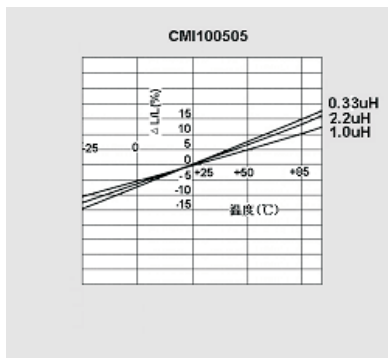
■ 阻抗－頻率特性 IMPEDANCE VS. FREQUENCY



鐵氧體疊層片式電感 FERRITE CHIP INDUCTORS

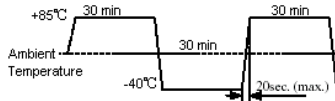


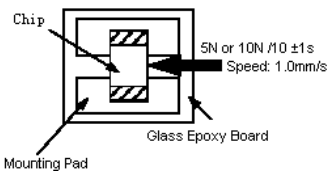
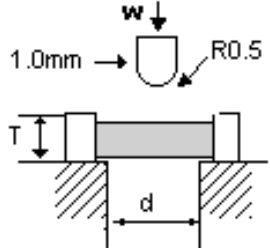
特性曲線 CHARACTERISTICS CURVES



■ 可靠性測試

RELIABILITY TESTING

Type	Item	Specified value	Test methods
1	Operating temperature range	-40 to +125°C	
2	Storage temperature range	-10 to +40°C	
3	Solderability	At least 90% of terminal electrode is covered by new solder	Solder temperature: $230 \pm 5^\circ\text{C}$ Duration: $4 \pm 1\text{S}$ Preheating temperature: 120 to 150°C Preheating time: 60S immersion into the colophony flux for 3 to 5 sec. Flux: immersion into methanol solution with colophony for 3 to 5 sec. Immersion speed: 25mm/sec
4	Resistance to soldering	Appearance: No significant abnormality. At least 75% of terminal electrode is covered by new solder Impedance change: within $\pm 20\%$ Inductor change: within $\pm 10\%$	Solder temperature: $260 \pm 5^\circ\text{C}$ Duration: $10 \pm 0.5\text{S}$ Preheating temperature: 120 to 150°C Preheating time: 60S immersion into the colophony flux for 3 to 5 sec. Flux: immersion into methanol solution with colophony for 3 to 5 sec. Immersion speed: 25mm/sec
5	Thermal shock	Appearance: No significant abnormality. Impedance change: within $\pm 30\%$ Inductor change: within $\pm 10\%$ Q value change(ferrite): within $\pm 30\%$ Q value change(ceramic): within $\pm 20\%$	Temperature: -40°C for $30 \pm 3\text{min}$ $+85^\circ\text{C}$ for $30 \pm 3\text{min}$ Transforming interval : max 20 sec Number of cycles: 32 
6	Loading at low temperature	Appearance: No significant abnormality. Impedance change: within $\pm 20\%$ Inductor change: within $\pm 10\%$	Temperature: $-55 \pm 2^\circ\text{C}$ Duration: 500^{+24}_{-0} hrs
7	Loading at high temperature	Appearance: No significant abnormality. Impedance change: within $\pm 30\%$ Inductor change: within $\pm 10\%$ Q value change(ferrite): within $\pm 30\%$ Q value change(ceramic): within $\pm 20\%$	Temperature: $85 \pm 2^\circ\text{C}$ Duration: 1000^{+24}_{-0} hrs Applied current: Rated current
8	Loading under Damp Heat	Appearance: No significant abnormality. Impedance change: within $\pm 30\%$ Inductor change : within $\pm 10\%$ Q value change(ferrite): within $\pm 30\%$ Q value change(ceramic): within $\pm 20\%$	Temperature: $55 \pm 2^\circ\text{C}$ Duration: 500^{+24}_{-0} hrs Humidity: 90 to 95%RH Applied current: Rated current

Type	Item	Specified value	Test methods								
9	Vibration	Appearance: No significant abnormality. Impedance change: within $\pm 30\%$ Inductor change: within $\pm 10\%$ Q value change(ferrite):within $\pm 30\%$ Q value change(ceramic):within $\pm 20\%$	Amplitude:1.5mm Directions:2hrs each in X Y Zdirection Frequency range: 10 to 55to 10Hz(min) Aookued firce:5N force for 1005 and 1608 series. 10N force for 2012、3216、3225、4516、4532 series. Keep time: 10 $\pm$ 1S								
10	Adhesion of electrode	The termination and body should be no damage	Applied force: 5N force for 1005 and 1608 series. 10N force for 2012、3216、3225、4516、4532series. Keep time : 10 $\pm$ 1S 								
11	Resistance to pressure of substrate	The body shall not be damaged by forces applied on the right. <table border="1" data-bbox="454 1209 949 1288"> <tr> <td>d</td><td>1.3</td><td>1.3</td><td>2.0</td></tr> <tr> <td>w</td><td>2.0</td><td>3.0</td><td>4.0</td></tr> </table>	d	1.3	1.3	2.0	w	2.0	3.0	4.0	
d	1.3	1.3	2.0								
w	2.0	3.0	4.0								

Note: When there are questions concerning, measurement shall be made after 24 $\pm$ 2hrs of recovery under the standard condition.

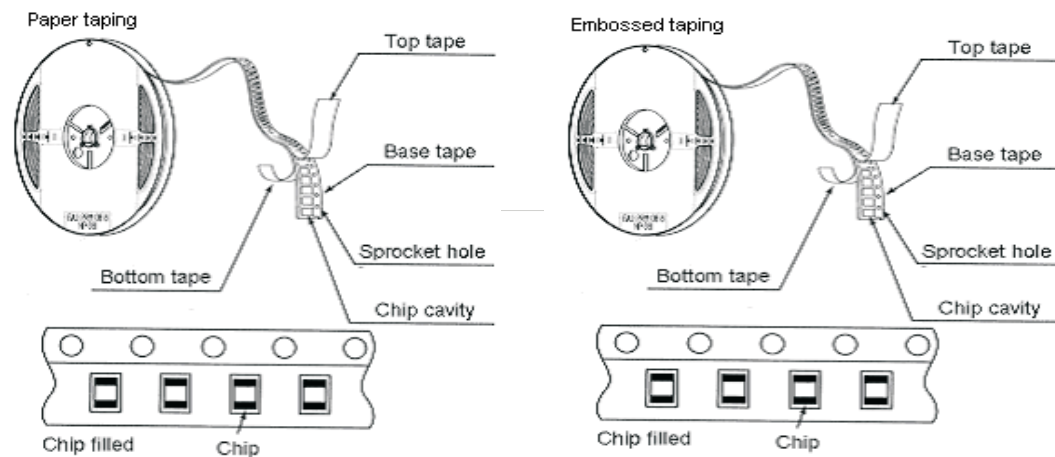
包裝PACKAGING

(VHF、CMI、CBG、CBW、CBH、CBY、CBA、CBM SERIES)

STANDAE QUANTITY

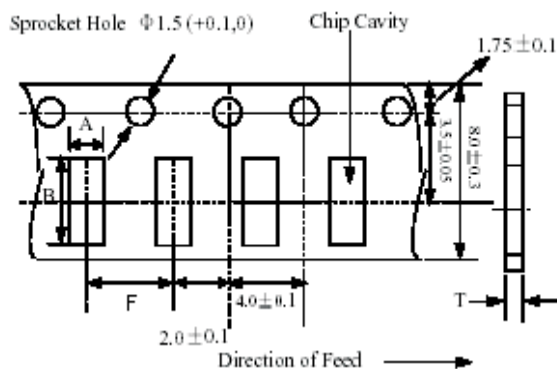
Type	1000505	160808	201209	321609	321611	322513	451616	453215	201004 (磁珠排)	321609 (磁珠排)
Quantity(pcs)	10000	4000	4000	4000	3000	3000	5000	3000	4000	3000

TAPING DRAWINGS



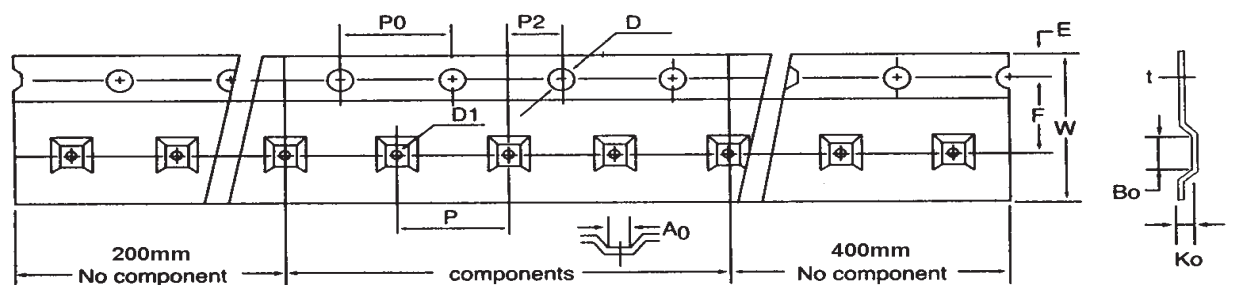
TAPING DIMENSIONS (UNIT: mm)

Paper tape



Part NO.	A	B	F	T
100505	0.65 ± 0.1	1.15 ± 0.1	2.0 ± 0.05	0.62max
160808	1.1 ± 0.1	1.9 ± 0.1	4.0 ± 0.05	1.1max
201209	1.5 ± 0.1	2.3 ± 0.1	4.0 ± 0.05	1.1max
321609	1.9 ± 0.1	3.5 ± 0.1	4.0 ± 0.05	0.97max

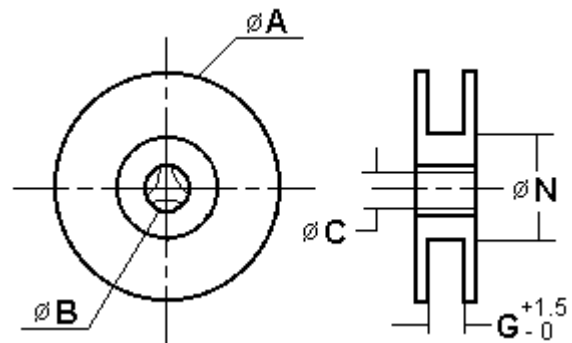
Embossed tape



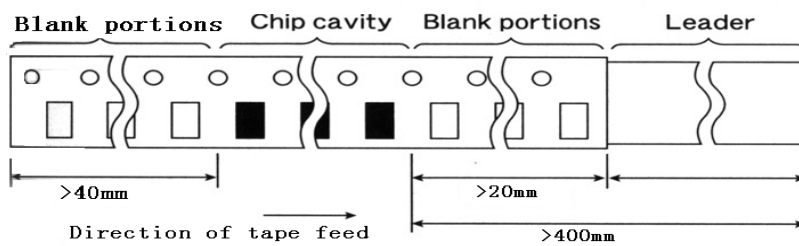
	2012	3216	3225	4516	4532	3216(磁珠排)
W	8.1+/-0.2	8.1+/-0.2	8.1+/-0.2	12.0+/-0.2	12.0+/-0.2	8.1+/-0.2
P	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	8.0+/-0.10	4.0+/-0.10
E	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10
F	3.50+/-0.10	3.50+/-0.10	3.50+/-0.10	5.50+/-0.10	5.50+/-0.10	3.50+/-0.10
D	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05	1.55+/-0.05
D1	1.00+/-0.10	1.00+/-0.10	1.00+/-0.10	1.50+/-0.10	1.50+/-0.10	1.00+/-0.10
P ₀	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10	4.0+/-0.10
P ₀ 10	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20
P2	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05	2.0+/-0.05
A ₀	1.52+/-0.10	1.90+/-0.10	2.80+/-0.10	1.93+/-0.10	3.66+/-0.10	1.90+/-0.10
B ₀	2.41+/-0.10	3.51+/-0.10	3.50+/-0.10	4.95+/-0.10	4.95+/-0.10	3.51+/-0.10
t	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10	0.23+/-0.10
K ₀	1.35+/-0.10	1.27+/-0.10	1.55+/-0.10	1.85+/-0.10	1.74+/-0.10	1.10+/-0.10

• REEL DIMENSIONS(UNIT:mm)

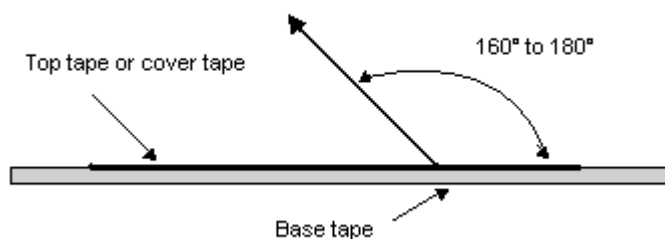
	A	B	C	N	G
CF-8	178±2.0	22±2.0	12.5±1.5	57±2.0	8
CF-12	330±2.0	22±2.0	12.5±1.5	98±2.0	12



• LEADER AND BLANK PORTION

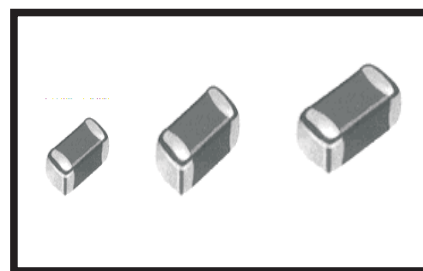


• PEELING OFF FORCE : 0.05 to 0.7N in the direction show below.



大電流型鐵氧體片式電感 FERRITE CHIP INDUCTORS(CMP)

OPERATING TEMP	1005 :-55~125℃
	1608 :-40~+85℃
	2012 :-40~+85℃



● 特征 FEATURES

- 超大的額定電流，極低的直流電阻
- 漏磁小，不產生耦合，可靠性高
- 無引綫，不產生跟踪性，適合高密度表面貼裝
- 優良的可焊性及耐熱衝擊性，適合波峰焊及回流焊
- Very large rated current and low direct-current resistance.
- No cross coupling between inductors due to low magnetic shield and high reliability.
- No lead, ideal for high density SMT installation, with no directtionlity.
- Superior solderability and resistance to soldering heat, ideal for wave or reflow soldering.

● 應用 APPLICATIONS

- VCD/DVD、數碼相機、電腦、數字電視、機頂盒
- VCD/DVD、digital cameras、personal computers etc.

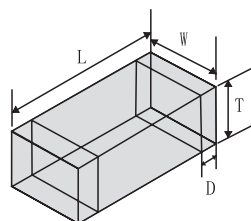
● 產品規格型號的表示方法 ORDERING CODE

CMP	201209	V	D	47N	K	T
①	②	③	④	⑤	⑥	⑦

① 產品代號 Product Code		② 規格尺寸(L × W × T) (mm) Dimensions		③ 材料代號 Material Code	④ 系列代號 Series Code	⑤ 感量(μH) Inductance	
CMP	疊層片式電感 Multilayer Chip Inductors	160808	1.6 × 0.8 × 0.8	U	D E	實例 Example	
		201209	2.0 × 1.2 × 0.9	V		47N	0.047
		321609	3.2 × 1.6 × 0.9	J		R10	0.10
		252009	2.5 × 2.0 × 0.9	X		1R0	1.0
						N=0.0(nH) R=0.0(μH)	

⑥ 誤差 Tolerance		⑦ 包裝方式 Packaging Style	
K	±10%	T B	卷帶盤裝 Tape & Reel 散裝 Bulk
M	±20%		
N	±30%		

• 外形尺寸 SHAPE AND DIMENSIONS



Unit:mm(inch)

Part No.	L	W	T	D
160808 (0603)	1.6±0.2 (0.063±0.008)	0.8±0.2 (0.031±0.008)	0.8±0.2 (0.031±0.008)	0.3±0.2 (0.01±0.008)
201209 (0805)	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	0.9±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)
201212 (0805)	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	1.2±0.2 (0.047±0.008)	0.5±0.3 (0.020±0.012)
321609 (1206)	3.2±0.2 (0.126±0.008)	1.6±0.2 (0.063±0.008)	1.1±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)
252009 (1008)	2.5±0.2 (0.098±0.008)	2.0±0.2 (0.079±0.008)	0.9±0.2 (0.035±0.008)	0.5±0.3 (0.020±0.012)

• 電性能參數 ELECTRICAL CHARACTERISTICS

2012 TYPE

Part No.	Inductance(μH)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	I _r (mA)Max
CMP201209VD47NK/M/N	0.047	1	280	0.10	1100
CMP201209VD56NK/M/N	0.056		280	0.10	1100
CMP201209VD68NK/M/N	0.068		250	0.15	1100
CMP201209VD82NK/M/N	0.082		250	0.15	1100
CMP201209VDR10K/M/N	0.10		210	0.15	1100
CMP201209VDR12K/M/N	0.12		200	0.15	1100
CMP201209VDR15K/M/N	0.15		175	0.15	1100
CMP201209VDR18K/M/N	0.18		160	0.15	1100
CMP201209VDR22K/M/N	0.22		150	0.15	1100
CMP201209VDR27K/M/N	0.27		130	0.15	1100
CMP201209VDR33K/M/N	0.33		120	0.15	1100
CMP201209VDR39K/M/N	0.39		110	0.15	1100
CMP201209VDR47K/M/N	0.47		100	0.15	1100
CMP201209VDR56K/M/N	0.56		100	0.20	800
CMP201209VDR68K/M/N	0.68		95	0.20	800
CMP201209VDR82K/M/N	0.82		90	0.20	800
CMP201209UD1R0K/M/N	1.0		75	0.24	800
CMP201209UD1R2K/M/N	1.2		65	0.24	800
CMP201209UD1R5K/M/N	1.5		60	0.30	700
CMP201209UD1R8K/M/N	1.8		55	0.36	600
CMP201209UD2R2K/M/N	2.2		50	0.36	600
CMP201209UD2R7K/M/N	2.7		45	0.36	600
CMP201209UD3R3K/M/N	3.3		41	0.40	350
CMP201209UD3R9K/M/N	3.9		38	0.40	350
CMP201209UD4R7K/M/N	4.7		35	0.40	350
CMP201209UD5R6K/M/N	5.6		32	0.50	250
CMP201209XD6R8K/M/N	6.8		29	0.50	250
CMP201209XD8R2K/M/N	8.2		26	0.56	250
CMP201209XD100K/M/N	10		24	0.56	250
CMP201209XD120K/M/N	12		22	0.56	250
CMP201209JD150K/M/N	15		19	0.65	100
CMP201209JD180K/M/N	18		18	0.65	100
CMP201209JD220K/M/N	22		16	0.65	100

大電流型鐵氧體片式電感 FERRITE CHIP INDUCTORS

• 電性能參數 ELECTRICAL CHARACTERISTICS

2520 TYPE

Part No.	Pductance (μ H)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMP252009UD1R0K/M/N	1.0	1	70	0.12	1500
CMP252009UD1R2K/M/N	1.2		50	0.15	1500
CMP252009UD1R5K/M/N	1.2		50	0.15	1500
CMP252009UD1R8K/M/N	1.8		40	0.18	1000
CMP252009UD2R2K/M/N	2.2		40	0.18	1000
CMP252009UD2R7K/M/N	2.7		30	0.22	1000
CMP252009UD3R3K/M/N	3.3		30	0.22	1000
CMP252009UD3R9K/M/N	3.9		25	0.26	1000
CMP252009UD4R7K/M/N	4.7		25	0.26	1000

3216 TYPE

Part No.	Pneuctance (μ H)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMP321609VD47NK/M/N	0.047	1	250	0.01	1800
CMP321609VD56NK/M/N	0.056		250	0.01	1800
CMP321609VD68NK/M/N	0.068		230	0.06	1800
CMP321609VD82NK/M/N	0.082		230	0.06	1800
CMP321609VDR10K/M/N	0.10		215	0.06	1500
CMP321609VDR12K/M/N	0.12		190	0.06	1500
CMP321609VDR15K/M/N	0.15		165	0.06	1500
CMP321609VDR18K/M/N	0.18		150	0.06	1500
CMP321609VDR22K/M/N	0.22		130	0.06	1500
CMP321609VDR27K/M/N	0.27		110	0.06	1500
CMP321609VDR33K/M/N	0.33		100	0.06	1500
CMP321609VDR39K/M/N	0.39		90	0.09	1400
CMP321609VDR47K/M/N	0.47		80	0.09	1400
CMP321609VDR56K/M/N	0.56		75	0.10	1100
CMP321609VDR68K/M/N	0.68		65	0.10	1100
CMP321609VDR82K/M/N	0.82		60	0.10	1100
CMP321609UD1R0K/M/N	1.0		60	0.15	1200
CMP321609UD1R2K/M/N	1.2		65	0.15	1200
CMP321609UD1R5K/M/N	1.5		60	0.17	1000
CMP321609UD1R8K/M/N	1.8		55	0.24	900
CMP321609UD2R2K/M/N	2.2		50	0.24	900
CMP321609UD2R7K/M/N	2.7		45	0.30	800
CMP321609UD3R3K/M/N	3.3		41	0.30	800
CMP321609UD3R9K/M/N	3.9		38	0.38	700
CMP321609UD4R7K/M/N	4.7		35	0.38	700
CMP321609UD5R6K/M/N	5.6		32	0.45	500
CMP321609XD6R8K/M/N	6.8		29	0.45	500
CMP321609XD8R2K/M/N	8.2		26	0.55	300
CMP321609XD100K/M/N	10		24	0.55	300
CMP321609XD120K/M/N	12		22	0.55	300
CMP321609JD150K/M/N	15		19	0.65	100
CMP321609JD180K/M/N	18		18	0.65	100
CMP321609JD220K/M/N	22		16	0.85	100
CMP321609JD270K/M/N	27		14	0.85	100

1608 TYPE

Part No.	Pneuctance (μ H)	Test Fre. (Mhz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMP160808VE47NK/M/N	0.047	1	260	0.12	150
CMP160808VE56NK/M/N	0.056		260	0.12	150
CMP160808VE68NK/M/N	0.068		250	0.12	150
CMP160808VE82NK/M/N	0.082		245	0.12	150
CMP160808VER10K/M/N	0.10		240	0.15	150
CMP160808VER12K/M/N	0.12		205	0.20	150
CMP160808VER15K/M/N	0.15		180	0.20	150
CMP160808VER18K/M/N	0.18		165	0.20	150
CMP160808VER22K/M/N	0.22		150	0.25	150
CMP160808VER27K/M/N	0.27		136	0.30	100
CMP160808VER33K/M/N	0.33		125	0.30	100
CMP160808VER39K/M/N	0.39		110	0.35	100
CMP160808VER47K/M/N	0.47		105	0.45	100
CMP160808VER56K/M/N	0.56		95	0.45	100
CMP160808VER68K/M/N	0.68		90	0.55	100
CMP160808VER82K/M/N	0.82		85	0.60	100
CMP160808UE1R0K/M/N	1.0		75	0.30	150
CMP160808UE1R2K/M/N	1.2		65	0.30	150
CMP160808UE1R5K/M/N	1.5		60	0.35	120
CMP160808UE1R8K/M/N	1.8		55	0.40	120
CMP160808UE2R2K/M/N	2.2		50	0.50	120
CMP160808UE2R7K/M/N	2.7		45	0.60	100
CMP160808XE3R3K/M/N	3.3		40	0.65	100
CMP160808XE3R9K/M/N	3.9		35	0.70	80
CMP160808XE4R7K/M/N	4.7		33	0.75	80
CMP160808JE5R6K/M/N	5.6		22	0.90	60
CMP160808JE6R8K/M/N	6.8		20	0.90	60
CMP160808JE8R2K/M/N	8.2		18	1.05	60
CMP160808JE100K/M/N	10		17	1.15	60
CMP160808JE120K/M/N	12		15	1.25	60

大電流型鐵氧體片式電感 FERRITE CHIP INDUCTORS

2012 TYPE

Part No.	Pneuctaece (μ H)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMP201209VE47NK/M/N	0.047	1	320	0.15	350
CMP201209VE56NK/M/N	0.056		320	0.15	350
CMP201209VE68NK/M/N	0.068		280	0.20	350
CMP201209VE82NK/M/N	0.082		280	0.20	350
CMP201209VER10K/M/N	0.10		235	0.20	350
CMP201209VER12K/M/N	0.12		220	0.20	350
CMP201209VER15K/M/N	0.15		200	0.20	350
CMP201209VER18K/M/N	0.18		185	0.25	300
CMP201209VER22K/M/N	0.22		170	0.25	300
CMP201209VER27K/M/N	0.27		150	0.25	300
CMP201209VER33K/M/N	0.33		145	0.25	300
CMP201209VER39K/M/N	0.39		135	0.30	250
CMP201209VER47K/M/N	0.47		125	0.30	250
CMP201209VER56K/M/N	0.56		115	0.36	200
CMP201209VER68K/M/N	0.68		105	0.36	200
CMP201209VER82K/M/N	0.82		100	0.36	200
CMP201209UE1R0K/M/N	1.0		75	0.26	220
CMP201209UE1R2K/M/N	1.2		65	0.26	220
CMP201209UE1R5K/M/N	1.5		60	0.30	180
CMP201209UE1R8K/M/N	1.8		55	0.30	180
CMP201209UE2R2K/M/N	2.2		50	0.36	150
CMP201209UE2R7K/M/N	2.7		45	0.36	150
CMP201209UE3R3K/M/N	3.3		41	0.40	120
CMP201209UE3R9K/M/N	3.9		38	0.40	120
CMP201209UE4R7K/M/N	4.7		35	0.40	120
CMP201209XE5R6K/M/N	5.6		32	0.60	100
CMP201209XE6R8K/M/N	6.8		29	0.60	100
CMP201209XE8R2K/M/N	8.2		26	0.65	100
CMP201209XE100K/M/N	10		24	0.65	100
CMP201209XE120K/M/N	12		22	0.65	100
CMP201209JE150K/M/N	15		19	0.75	50
CMP201209JE180K/M/N	18		18	0.75	50
CMP201209JE220K/M/N	22		16	0.75	50

3216 TYPE

Part No.	Pneuctance (μ H)	Test Fre. (MHz)	SRF (MHz)Min	DCR (Ω)Max	Ir (mA)Max
CMP321609VE47NK/M/N	0.047	1	320	0.15	450
CMP321609VE56NK/M/N	0.056		320	0.15	450
CMP321609VE68NK/M/N	0.068		280	0.20	450
CMP321609VE82NK/M/N	0.082		280	0.20	450
CMP321609VER10K/M/N	0.10		235	0.20	350
CMP321609VER12K/M/N	0.12		220	0.20	350
CMP321609VER15K/M/N	0.15		200	0.20	350
CMP321609VER18K/M/N	0.18		185	0.20	350
CMP321609VER22K/M/N	0.22		170	0.20	350
CMP321609VER27K/M/N	0.27		150	0.20	350
CMP321609VER33K/M/N	0.33		145	0.20	350
CMP321609VER39K/M/N	0.39		135	0.30	220
CMP321609VER47K/M/N	0.47		125	0.30	220
CMP321609VER56K/M/N	0.56		115	0.30	220
CMP321609VER68K/M/N	0.68		105	0.30	220
CMP321609VER82K/M/N	0.82		100	0.30	220
CMP321609UE1R0K/M/N	1.0		75	0.20	250
CMP321609UE1R2K/M/N	1.2		65	0.20	250
CMP321609UE1R5K/M/N	1.5		60	0.25	250
CMP321609UE1R8K/M/N	1.8		55	0.25	250
CMP321609UE2R2K/M/N	2.2		50	0.30	200
CMP321609UE2R7K/M/N	2.7		45	0.30	200
CMP321609UE3R3K/M/N	3.3		41	0.30	200
CMP321609UE3R9K/M/N	3.9		38	0.35	150
CMP321609UE4R7K/M/N	4.7		35	0.35	150
CMP321609UE5R6K/M/N	5.6		32	0.50	100
CMP321609XE6R8K/M/N	6.8		29	0.50	100
CMP321609XE8R2K/M/N	8.2		26	0.50	100
CMP321609XE100K/M/N	10		24	0.50	100
CMP321609XE120K/M/N	12		22	0.60	50
CMP321609JE150K/M/N	15		19	0.80	50
CMP321609JE180K/M/N	18		18	0.80	50
CMP321609JE220K/M/N	22		16	1.00	50