KOME

KCMI Series

Multilayer Chip Ferrite Inductors



Features

- Miniature volume.
- No cross coupling between inductors due to low magnetic shield and high reliability.
- No lead,ideal for high density SMT installation.
- Superior solderability and resistance to soldering heat,suitable for reflow soldering.

TYPE	SIZES	INDUCTANCE	TOLERANCE
Multilayer chip ferrite inductor	**0402 · 0603 · 0805 · 1206 · 1208 · 1210 · 1812**	**0.047 – 120 μH**	**K ±10% · M ±20%**

Applications

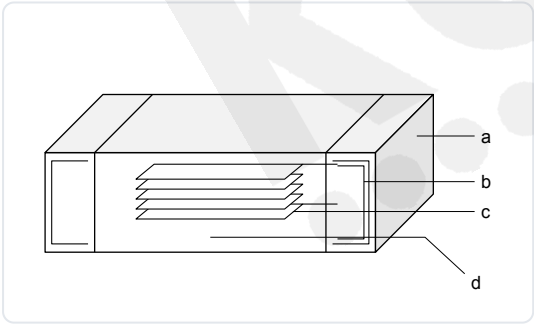
- Smartphones, tablet terminals, digital cameras, camcorders, hard disks, power modules, etc.; for DC-DC conversion circuits in mobile phones, wearable devices, DVCs, HDDs, etc..

Part number system

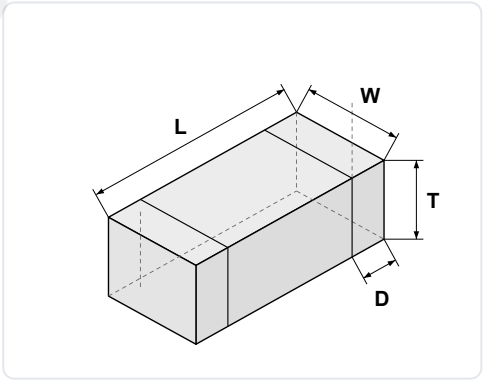
Example: KCMI0805V47NKT

KCMI	0805	V	47N	K	T
Product Code Multilayer Chip Ferrite Inductors	Dimensions (mm) 0402(100505) 1.0×0.5×0.5 0603(160808) 1.6×0.8×0.8 0805(201209) 2.0×1.2×0.9 1206(321609) 3.2×1.6×0.9 1208(321611) 3.2×1.6×1.1 1210(322513) 3.2×2.5×1.3 1812(453215) 4.5×3.2×1.5	Material Code V · U · J · X	Inductance (μH) 47N = 0.047 · R10 = 0.10 · 1R0 = 1.0 · N=0.0(nH) · R=0.0(μH)	Tolerance K ±10% · M ±20%	Packaging Style T = Tape & Reel · B = Bulk

Product structure and dimensions



a. Ni/Sn plating · b. Ag layer · c. Inner electrode · d. Body



Part No	L(mm)	W(mm)	T(mm)	D(mm)
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±0.1 (0.010±0.004)
160808 (0603)	1.6± 0.20 (0.063± 0.008)	0.8± 0.20 (0.031± 0.008)	0.8± 0.20 (0.031± 0.008)	0.3± 0.2 (0.01± 0.008)
201209 (0805)	2.0± 0.20 (0.079± 0.008)	1.2± 0.20 (0.047± 0.008)	0.9± 0.20 (0.035± 0.008)	0.5± 0.3 (0.020± 0.012)
321609 (1206)	3.2± 0.20 (0.126± 0.008)	1.6± 0.20 (0.063± 0.008)	0.9± 0.20 (0.035± 0.008)	0.5± 0.3 (0.020± 0.012)
321611 (1208)	3.2±0.20 (0.126±0.008)	1.6±0.20 (0.063±0.008)	1.1±0.20 (0.043±0.008)	0.5±0.3 (0.020±0.012)
322513 (1210)	3.2±0.20 (0.126±0.008)	2.5±0.20 (0.098±0.008)	1.3±0.20 (0.051±0.008)	0.5±0.3 (0.020±0.012)
453215 (1812)	4.5±0.20 (0.180±0.008)	3.2±0.20 (0.126±0.008)	1.5±0.20 (0.060±0.008)	0.5±0.3 (0.020±0.012)

Unit: mm (inch)

Electrical characteristics

Inductance and Q testing conditions: E4982A or equivalent, test voltage 50mV ± 5mV, Temperature 15°C~35°C, Humidity 25%~75%.

RDC Testing conditions: RM3542A or equivalent, Temperature 15°C~35°C, Humidity 25%~75%.

Rated current: Apply the rated current, and the surface temperature rise of the product shall not exceed 40°C.

1005 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI0402V47NKT	±10%	0.047	10	50	0.45	220	25
KCMI0402V56NKT	±10%	0.056	10	50	0.45	210	25
KCMI0402V68NKT	±10%	0.068	10	50	0.45	210	25
KCMI0402V82NKT	±10%	0.082	10	50	0.45	200	25
KCMI0402VR10KT	±10%	0.10	15	25	0.70	200	25
KCMI0402VR12KT	±10%	0.12	15	25	0.70	165	25
KCMI0402VR15KT	±10%	0.15	15	25	0.80	140	25
KCMI0402VR18KT	±10%	0.18	15	25	0.80	120	25
KCMI0402VR22KT	±10%	0.22	15	25	1.00	110	25
KCMI0402VR27KT	±10%	0.27	15	25	1.20	95	25
KCMI0402VR33KT	±10%	0.33	15	25	1.20	85	25
KCMI0402UR39KT	±10%	0.39	15	10	1.30	70	20
KCMI0402UR47KT	±10%	0.47	15	10	1.50	68	20
KCMI0402UR56KT	±10%	0.56	15	10	2.00	55	20
KCMI0402UR68KT	±10%	0.68	15	10	2.30	50	20
KCMI0402UR82KT	±10%	0.82	15	10	3.00	45	18
KCMI0402U1R0KT	±10%	1.0	20	10	0.90	40	25
KCMI0402U1R2KT	±10%	1.2	20	10	1.20	35	25
KCMI0402U1R5KT	±10%	1.5	20	10	1.30	30	20
KCMI0402U1R8KT	±10%	1.8	20	10	1.40	30	20

1608 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI0603V47NKT	±10%	0.047	15	50	0.20	260	50
KCMI0603V56NKT	±10%	0.056	15	50	0.20	260	50
KCMI0603V68NKT	±10%	0.068	15	50	0.20	250	50
KCMI0603V82NKT	±10%	0.082	15	50	0.20	245	50
KCMI0603VR10KT	±10%	0.10	20	25	0.25	240	50
KCMI0603VR12KT	±10%	0.12	20	25	0.30	205	50
KCMI0603VR15KT	±10%	0.15	20	25	0.30	180	50
KCMI0603VR18KT	±10%	0.18	20	25	0.30	165	50
KCMI0603VR22KT	±10%	0.22	20	25	0.40	150	50
KCMI0603VR27KT	±10%	0.27	20	25	0.45	136	50
KCMI0603VR33KT	±10%	0.33	20	25	0.50	125	50
KCMI0603VR39KT	±10%	0.39	20	25	0.60	110	50
KCMI0603VR47KT	±10%	0.47	20	25	0.70	105	50
KCMI0603VR56KT	±10%	0.56	20	25	0.70	95	50
KCMI0603VR68KT	±10%	0.68	20	25	0.90	90	50
KCMI0603VR82KT	±10%	0.82	20	25	1.00	85	50
KCMI0603U1R0KT	±10%	1.0	25	10	0.50	75	25
KCMI0603U1R2KT	±10%	1.2	25	10	0.55	65	25
KCMI0603U1R5KT	±10%	1.5	25	10	0.70	60	25
KCMI0603U1R8KT	±10%	1.8	25	10	0.75	55	25
KCMI0603U2R2KT	±10%	2.2	25	10	0.80	50	25
KCMI0603U2R7KT	±10%	2.7	25	10	0.90	45	15

1608 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI0603U3R3KT	±10%	3.3	25	10	1.00	40	15
KCMI0603U3R9KT	±10%	3.9	25	10	1.30	35	15
KCMI0603U4R7KT	±10%	4.7	25	10	1.50	33	15
KCMI0603J5R6KT	±10%	5.6	12	4	1.55	22	5
KCMI0603J6R8KT	±10%	6.8	12	4	1.55	20	5
KCMI0603J8R2KT	±10%	8.2	12	4	1.65	18	5
KCMI0603J100KT	±10%	10	20	2	1.75	17	3
KCMI0603J120KT	±10%	12	20	2	1.85	15	3
KCMI0603J150MT	±20%	15	20	1	2.50	14	1
KCMI0603J180MT	±20%	18	20	1	2.70	13	1
KCMI0603J220MT	±20%	22	20	1	3.00	12	1

2012 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI0805V47NKT	±10%	0.047	25	50	0.15	320	300
KCMI0805V56NKT	±10%	0.056	25	50	0.15	320	300
KCMI0805V68NKT	±10%	0.068	25	50	0.20	280	300
KCMI0805V82NKT	±10%	0.082	25	50	0.20	280	300
KCMI0805VR10KT	±10%	0.10	20	25	0.20	235	250
KCMI0805VR12KT	±10%	0.12	20	25	0.25	220	250
KCMI0805VR15KT	±10%	0.15	20	25	0.25	200	250
KCMI0805VR18KT	±10%	0.18	20	25	0.30	185	250
KCMI0805VR22KT	±10%	0.22	20	25	0.30	170	250
KCMI0805VR27KT	±10%	0.27	20	25	0.40	150	250
KCMI0805VR33KT	±10%	0.33	20	25	0.40	145	250
KCMI0805VR39KT	±10%	0.39	25	25	0.50	135	200
KCMI0805VR47KT	±10%	0.47	25	25	0.50	125	200
KCMI0805VR56KT	±10%	0.56	25	25	0.60	115	150
KCMI0805VR68KT	±10%	0.68	25	25	0.65	105	150
KCMI0805VR82KT	±10%	0.82	25	25	0.70	100	150
KCMI0805U1R0KT	±10%	1.0	35	10	0.40	75	50
KCMI0805U1R2KT	±10%	1.2	35	10	0.40	65	50
KCMI0805U1R5KT	±10%	1.5	35	10	0.40	60	50
KCMI0805U1R8KT	±10%	1.8	35	10	0.40	55	50
KCMI0805U2R2KT	±10%	2.2	35	10	0.60	50	50
KCMI0805U2R7KT	±10%	2.7	35	10	0.60	45	50
KCMI0805U3R3KT	±10%	3.3	35	10	0.60	41	50
KCMI0805U3R9KT	±10%	3.9	35	10	0.80	38	50
KCMI0805U4R7KT	±10%	4.7	35	10	0.90	35	30
KCMI0805X5R6KT	±10%	5.6	30	4	1.00	32	15
KCMI0805X6R8KT	±10%	6.8	30	4	1.05	29	15
KCMI0805X8R2KT	±10%	8.2	30	4	1.05	26	15
KCMI0805X100KT	±10%	10	30	2	1.15	24	15
KCMI0805X120KT	±10%	12	30	2	1.15	22	15
KCMI0805J150KT	±10%	15	25	1	1.15	19	5
KCMI0805J180KT	±10%	18	25	1	1.20	18	5
KCMI0805J220KT	±10%	22	25	1	1.20	16	5
KCMI0805J270KT	±10%	27	25	1	1.50	16	5
KCMI0805J330MT	±20%	33	25	1	1.50	16	5

2012 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI0805J390MT	±20%	39	25	1	1.50	16	5
KCMI0805J470MT	±20%	47	25	1	1.70	15	5
KCMI0805J560MT	±20%	56	25	1	2.60	10	5
KCMI0805J680MT	±20%	68	25	1	2.60	10	5

3216 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI1206V47NKT	±10%	0.047	30	50	0.15	320	300
KCMI1206V56NKT	±10%	0.056	30	50	0.20	320	300
KCMI1206V68NKT	±10%	0.068	30	50	0.25	280	300
KCMI1206V82NKT	±10%	0.082	30	50	0.25	280	300
KCMI1206VR10KT	±10%	0.10	25	25	0.25	235	250
KCMI1206VR12KT	±10%	0.12	25	25	0.25	220	250
KCMI1206VR15KT	±10%	0.15	25	25	0.25	200	250
KCMI1206VR18KT	±10%	0.18	25	25	0.30	185	250
KCMI1206VR22KT	±10%	0.22	25	25	0.30	170	250
KCMI1206VR27KT	±10%	0.27	25	25	0.30	150	250
KCMI1206VR33KT	±10%	0.33	25	25	0.30	145	250
KCMI1206VR39KT	±10%	0.39	30	25	0.50	135	200
KCMI1206VR47KT	±10%	0.47	30	25	0.50	125	200
KCMI1206VR56KT	±10%	0.56	30	25	0.50	115	150
KCMI1206VR68KT	±10%	0.68	30	25	0.50	105	150
KCMI1206VR82KT	±10%	0.82	30	25	0.60	100	150
KCMI1206U1R0KT	±10%	1.0	35	10	0.30	75	100
KCMI1206U1R2KT	±10%	1.2	35	10	0.40	65	100
KCMI1206U1R5KT	±10%	1.5	35	10	0.40	60	50
KCMI1206U1R8KT	±10%	1.8	35	10	0.40	55	50
KCMI1206U2R2KT	±10%	2.2	35	10	0.50	50	50
KCMI1206U2R7KT	±10%	2.7	35	10	0.50	45	50
KCMI1206U3R3KT	±10%	3.3	35	10	0.50	41	50
KCMI1206U3R9KT	±10%	3.9	35	10	0.60	38	50
KCMI1206U4R7KT	±10%	4.7	35	10	0.65	35	25
KCMI1206U5R6KT	±10%	5.6	35	4	0.80	32	25
KCMI1206X6R8KT	±10%	6.8	35	4	0.80	29	25
KCMI1206X8R2KT	±10%	8.2	35	4	0.80	26	25
KCMI1206X100KT	±10%	10	35	2	0.80	24	25
KCMI1206X120KT	±10%	12	35	2	0.90	22	15
KCMI1206J150KT	±10%	15	30	1	1.00	19	5
KCMI1206J180KT	±10%	18	30	1	1.00	18	5
KCMI1206J220KT	±10%	22	30	1	1.20	16	5
KCMI1206J270KT	±10%	27	30	1	1.20	14	5
KCMI1206J330KT	±10%	33	30	1	1.30	13	5
KCMI1206J390KT	±10%	39	30	1	1.30	13	5
KCMI1208J470KT	±10%	47	30	1	1.60	12	5
KCMI1208J560MT	±20%	56	30	1	1.80	12	5
KCMI1208J680MT	±20%	68	30	1	2.00	11	5
KCMI1208J820MT	±20%	82	30	1	2.40	11	5
KCMI1208J101MT	±20%	100	30	1	3.00	8	5

3225 Type

Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI1210U1R0KT	±10%	1.0	40	10	0.20	70	600
KCMI1210U1R2KT	±10%	1.2	40	10	0.20	70	600
KCMI1210U1R5KT	±10%	1.5	40	10	0.30	70	500
KCMI1210U1R8KT	±10%	1.8	40	10	0.30	70	500
KCMI1210U2R2KT	±10%	2.2	40	10	0.30	50	500
KCMI1210U2R7KT	±10%	2.7	40	10	0.30	50	500
KCMI1210U3R3KT	±10%	3.3	40	10	0.40	50	500
KCMI1210U3R9KT	±10%	3.9	40	10	0.40	30	500
KCMI1210U4R7KT	±10%	4.7	40	10	0.50	30	500
KCMI1210U5R6KT	±10%	5.6	35	4	0.60	30	450
KCMI1210X6R8KT	±10%	6.8	35	4	0.60	20	450
KCMI1210X8R2KT	±10%	8.2	35	4	0.70	20	400
KCMI1210X100KT	±10%	10	35	2	0.70	20	400
KCMI1210X120KT	±10%	12	35	2	0.70	20	400
KCMI1210J150KT	±10%	15	35	1	0.70	20	300
KCMI1210J180KT	±10%	18	35	1	0.70	10	300
KCMI1210J220KT	±10%	22	35	1	0.75	10	250
KCMI1210J270KT	±10%	27	35	1	0.75	10	250
KCMI1210J330KT	±10%	33	35	1	0.80	10	250
KCMI1210J390KT	±10%	39	35	1	0.80	10	250
KCMI1210J470KT	±10%	47	35	1	1.00	10	200
KCMI1210J560MT	±20%	56	35	1	1.20	5	200
KCMI1210J680MT	±20%	68	35	1	1.30	5	150
KCMI1210J820MT	±20%	82	35	1	1.50	5	150
KCMI1210J101MT	±20%	100	35	1	1.50	5	150
KCMI1210J121MT	±20%	120	35	1	1.80	5	150

4532 Type

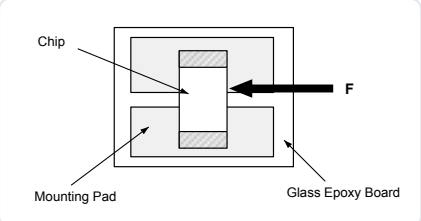
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KCMI1812U1R0KT	±10%	1.0	35	10	0.55	50	650
KCMI1812U1R2KT	±10%	1.2	35	10	0.55	50	650
KCMI1812U1R5KT	±10%	1.5	35	10	0.55	45	600
KCMI1812U1R8KT	±10%	1.8	35	10	0.65	45	600
KCMI1812U2R2KT	±10%	2.2	35	10	0.65	40	500
KCMI1812U2R7KT	±10%	2.7	35	10	0.70	40	500
KCMI1812U3R3KT	±10%	3.3	35	10	0.75	35	500
KCMI1812U3R9KT	±10%	3.9	35	10	0.80	35	500
KCMI1812U4R7KT	±10%	4.7	30	10	0.90	25	500
KCMI1812U5R6KT	±10%	5.6	30	4	0.90	20	500
KCMI1812U6R8KT	±10%	6.8	30	4	1.00	18	500
KCMI1812X8R2KT	±10%	8.2	30	4	1.00	17	450
KCMI1812X100KT	±10%	10	30	2	1.00	16	450
KCMI1812X120KT	±10%	12	35	2	1.00	15	450
KCMI1812J150KT	±10%	15	35	1	1.00	14	400
KCMI1812J180KT	±10%	18	35	1	1.00	13	400
KCMI1812J220KT	±10%	22	35	1	1.30	12	300
KCMI1812J270KT	±10%	27	35	1	1.30	10	300
KCMI1812J330KT	±10%	33	40	1	1.50	10	250
KCMI1812J390KT	±10%	39	40	1	1.50	10	250

4532 Type

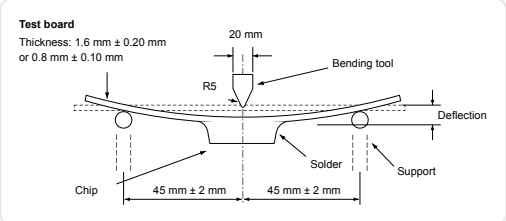
Part No.	Tolerance	Inductance (μH)	Q (min)	Test frequency (MHz)	DCR (Ω) Max	SRF (MHz) min	Ir (mA) Max
KCMI1812J470KT	±10%	47	40	1	1.65	8	250
KCMI1812J560KT	±10%	56	40	1	1.80	8	250
KCMI1812J680MT	±20%	68	40	1	2.00	6	200
KCMI1812J820MT	±20%	82	40	1	2.30	6	200
KCMI1812J101MT	±20%	100	40	1	2.30	6	150
KCMI1812J121MT	±20%	120	40	1	2.50	6	150

Reliability test method

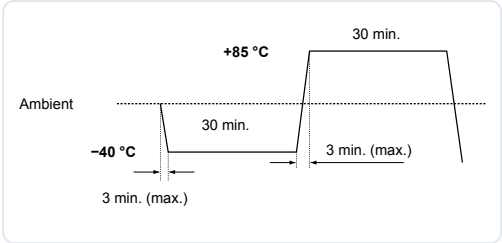
No.	Items	Requirements	Test Methods and Remarks
1	Solderability	No mechanical damage. 95% or more of electrode area shall be coated by new solder.	Preheating temperature:120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 245±3°C Immersion tin depth:10mm Duration : 3±0.3s Dip performance to a flux of about:3 ~ 5 s
2	Resistance to Soldering Heat	No mechanical damage. Inductance : V, U : change within ±20% X : change within ±25% J : change within ±30% Q value change(ferrite): within ±30%	Preheating temperature: 120°C to 150°C Preheating time: 60s Solder 96.5%Sn/3.0%Ag/0.5%Cu of the Sn solder. Solder temperature: 260°C±5°C Immersion tin depth:10mm Duration : 10±1s Dip performance to a flux of about:3~5 s
3	Adhesion of electrode	The termination and body should be no damage.	Applied force: 5N force for 1005 series; 7N force for 1608 series; 10N force for 2012, 3216 series. 15N force for 3225, 4532 series. Keep time : 10±1S
4	Low temperature resistance	No mechanical damage. Inductance change: within ±10% Q value change(ferrite): within ±30%	Temperature:-40±2°C Testing time: 1000 +24/–0 h
5	Bending strength	No mechanical damage	Testing board: glass epoxy-resin substrate For (1±0.5) mm/s compression speed, curvature: 2mm, hold time 20s±1s.
6	Vibration	No mechanical damage. Inductance change: within ±20% Q value change(ferrite): within ±30%	Amplitude modulation: 1.5mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz to 55Hz to 10Hz for 1min.
7	High temperature resistance	No mechanical damage. Inductance change: within ±10% Q value change(ferrite): within ±30%	Testing time: 1000 +24/–0 h Temperature: 85±2°C
8	Static Humidity	No mechanical damage. Inductance change: within ±10% Q value change(ferrite): within ±30%	Humidity: 90% to 95% RH Temperature: 60°C±2°C Testing time: 1000 +24/–0 h
9	High temperature load	No mechanical damage. Inductance change: within ±10% Q value change(ferrite): within ±30%	impose current: at room Testing time: 1000 +24/–0 h Temperature: 85±2°C
10	Temperature Shock	No mechanical damage. Inductance change: within ±10% Q value change(ferrite): within ±30%	Temperature: -40°C for 30±3min +85°C for 30±3min Number of cycles: 32



Adhesion of electrode



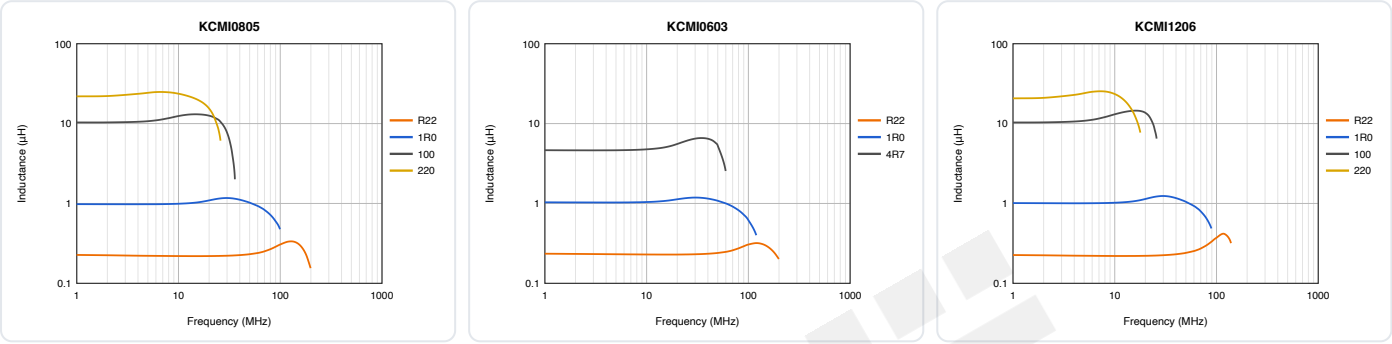
Bending strength



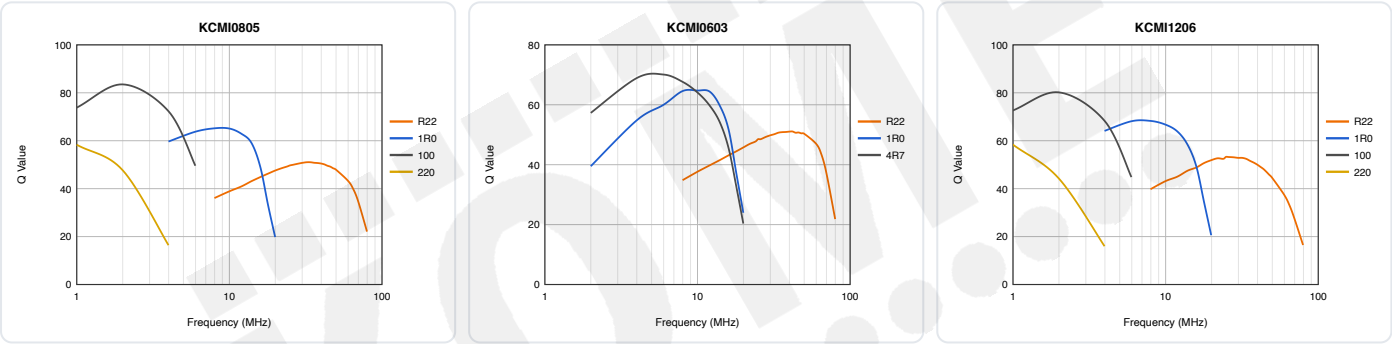
Temperature shock

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

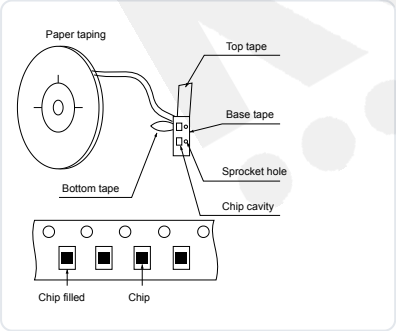
Inductance Vs. Frequency Characteristics



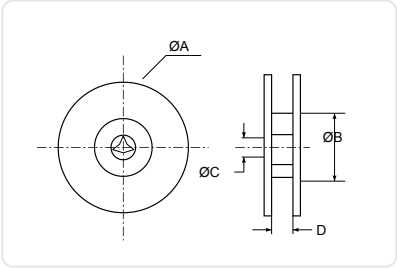
Q Value Vs. Frequency Characteristics



Packaging



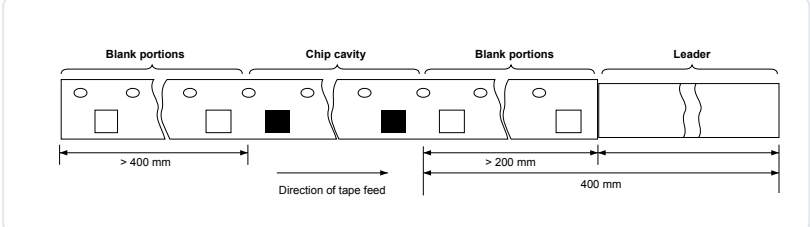
Taping drawings



Reel dimensions (Unit: mm)

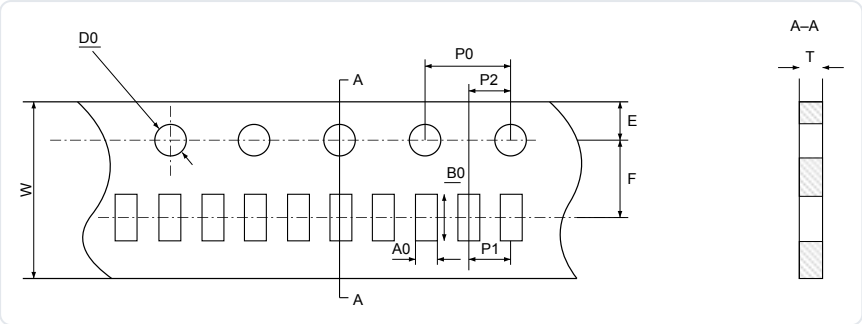
Size	A	B	C	D
7 inch	178±2.0	60±2.0	13.0±1.0	9.5±2.0
13 inch	330±2.0	100±2.0	13.5±1.0	12.4±2.0

Note: 7 inch is available in 060303, 100505, 160808, 201209, 321609, 322513, 451616 sizes, 13 inch is available in 453215 sizes



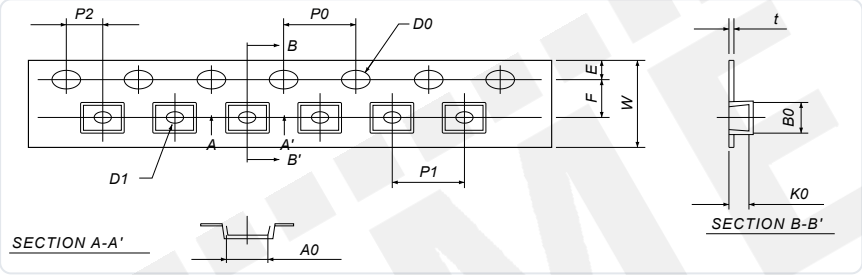
Leader and blank portion

Taping dimensions (Unit: mm) · Paper tape



Part NO.	A0	B0	W	F	E	P1	P2	P0	D0	T
060303	0.38±0.03	0.68±0.03	8.00±0.10	3.50±0.05	1.75±0.05	2.00±0.05	2.00±0.05	4.00±0.10	1.55±0.05	0.42±0.03
100505	0.59±0.10	1.12±0.10	8.00±0.20	3.50±0.10	1.75±0.20	2.00±0.10	2.00±0.10	4.00±0.20	1.55±0.10	0.60±0.10
160808	1.05±0.20	1.85±0.20	8.00±0.20	3.50±0.10	1.75±0.20	2.00±0.20	2.00±0.10	4.00±0.20	1.55±0.10	0.95±0.10
201209	1.45±0.20	2.35±0.20	8.00±0.20	3.50±0.10	1.75±0.20	2.00±0.20	2.00±0.10	4.00±0.20	1.55±0.10	0.95±0.10
321609	1.90±0.20	3.46±0.20	8.00±0.20	3.50±0.10	1.75±0.20	4.00±0.20	2.00±0.10	4.00±0.20	1.55±0.10	0.95±0.10

Taping dimensions (Unit: mm) · Embossed tape



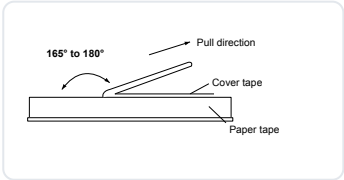
Size	453215	322513	321611	201212
W	12.00+/-0.20	8.00+/-0.20	8.00+/-0.20	8.00+/-0.2
E	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10	1.75+/-0.10
F	5.50+/-0.10	3.50+/-0.10	3.50+/-0.10	3.50+/-0.10
D0	1.50+/-0.10	1.50+/-0.10	1.50+/-0.10	1.50+/-0.10
D1	1.50+/-0.10	1.00+/-0.10	1.00+/-0.10	1.00+/-0.10
P0	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10
P010	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20	40.0+/-0.20
P1	8.00+/-0.10	4.00+/-0.10	4.00+/-0.10	4.00+/-0.10
P2	2.00+/-0.10	2.0+/-0.05	2.0+/-0.05	2.00+/-0.10
A0	3.66+/-0.10	2.77+/-0.10	1.88+/-0.10	1.52+/-0.10
B0	4.95+/-0.10	3.42+/-0.10	3.50+/-0.10	2.41+/-0.10
K0	1.85+/-0.10	1.55+/-0.10	1.27+/-0.10	1.35+/-0.10
t	0.24+/-0.10	0.22+/-0.10	0.22+/-0.10	0.23+/-0.10

Peeling off force

(1) Peeling force should be 0.1~0.7N pulling in the direction of arrow.

(2) Speed of peeling off: 300mm/min.

(3) The cover bond should not be damaged and bond the tape when it peeled off.



Packaging number (Unit: Pcs)

Size	453215	322513	321611	321609	201212	201209	160808	100505	060303
REEL	3000	3000	3000	4000	3000	4000	4000	10000	15000
BOX	12000	30000	30000	40000	30000	40000	40000	100000	150000
CASE	36000	180000	180000	240000	180000	240000	240000	600000	900000

Recommended soldering conditions

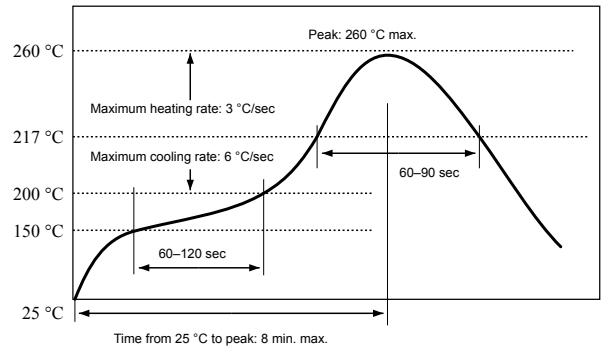
Products can be applied to reflow soldering.

Soldering requirements

(1) Pre-heating should be in such a way that the temperature difference between solder and ferrite surface is limited to 150°C max. Also cooling into solvent after soldering should be in such way that the temperature difference is limited to 100°C max. Un-enough pre-heating may cause cracks on the ferrite, resulting in the deterioration of product quality.

(2) Products should be soldered within the following allowable range indicated by the slanted line. The excessive soldering conditions may cause the corrosion of the electrode. When soldering is repeated, allowable time is the accumulated time.

Reflow soldering profile



(1) Preheat condition: 150 ~200°C/60~120sec

(2) Allowed time above 217°C: 60~90sec

(3) Max temp: 260 °C

(4) Max time at max temp: 10 sec

(5) Solder paste: Sn/3.0Ag/0.5Cu

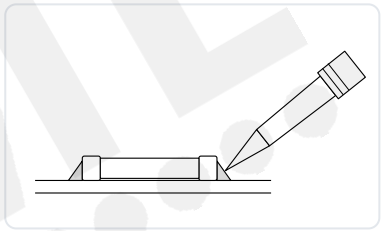
(6) Allowed reflow time: 2x max

Iron soldering

Perform soldering at 350°C on 30W max

Time: < 5S

Take care not to apply the tip of the soldering iron to the terminal electrodes



Cleaning

(1) Cleaning temperature : 60°C max

(2) Cleaning time: 1 minute min.

(3) Ultrasonic output power: 200W max

Storage

Storage period

Products which inspected inductor company over 1 year ago should be examined and used, which can be Confirmed with inspection No. marked on the container. Solderability should be checked if this period is exceeded.

Storage conditions

(1) Products should be stored in the warehouse on the following conditions: Temperature : -10~+40°C Humidity: 30~70% relative humidity

(2) Don't keep products in corrosive gases such as sulfur, chlorine gas or acid, or it may cause oxidization of Electrodes resulting in poor solderability.

(3) Products should be stored on the pallet for the prevention of the influence from humidity, dust and so on.

(4) Products should be stored in the warehouse without heat shock, vibration, direct sunlight and so on.

(5) Products should be stored under the airtight packaged condition.

Usage of ODS

For ODS listed below, we don't use in process. ODS: CCl4, HCFC, etc.

Notes

(1) If the parcel label on product is "Unitary lead free" that indicate the products in accord with ROHS appointed requests.

(2) This product specification guarantees the quality of our product as a single unit, Please make sure that your product has been evaluated and confirmed against your specifications when our product is mounted to your product.

(3) We can’t warrant against failure caused by any use of our product that deviates from the intended use as described in this product specification.

Revision of resume

Version	Date	Description
18.01	2018-5-21	Initial issue
20.01	2020-5-28	Modified the bending strength test method and requirements of reliability test items.
21.01	2021-5-6	Modified the reliability test item of bending strength test method, changed the temperature cycling items into temperature shocking. Deleted the drop test item.
22.01	2022-1-7	Modified the storage period.
A0	2024-05-16	Modified the version name to delete the welding, cleaning, and storage requirements
A1	2025-03-10	Added welding, cleaning, storage requirements Remove the requirement for soldering rate in the reliability test for resistance to soldering heat. Modify the naming of reel sizes