

FrelTec GmbH

Mathildenstr. 10A
82319 Starnberg
Germany

Multilayer Ferrite Chip Inductor SMD

FrelTec Multilayer Ferrite Chip Inductor

SMD

SPECIFICATION

Part Number

09G	05*	151*	Q*	T04	1*
Type	Size	Impedance	Tolerance	Packing	Material
09G : SMD Multilayer Ferrite Chip Inductor	100505:1,0x0,5x0,5	The value is given in μH "N" indicates the decimal point for nH and "U" indicates the decimal point for μH . When higher than 100 μH the last digit is the multiplier	K : $\pm 10\%$	T10: tape and reel, for 10kpcs, paper tape (7"reel), 100505 size	Internal Material code
	160808:1,6x0,8x0,8				
	201209:2,0x1,2x0,9				
	201212:2,0x1,2x1,2	which denotes the number of zero following	M: $\pm 20\%$	T04: tape and reel, for 4kpcs, paper tape (7"reel), 160808, 201209 and 321609 size	
	201609:2,0x1,6x0,9				
	252009:2,5x2,0x0,9				
	252010:2,5x2,0x1,0	Example:		E04: tape and reel, for 4kpcs, embossed plastic tape (7"reel), 201609 size	
	321609:3,2x1,6x0,9	10N : 10 nH		E03: tape and reel, for 3kpcs, embossed plastic tape (7"reel), 201212, 252009, 252010, 321611 and 322513 size	
	321611:3,2x1,6x1,1	3U3 : 3300 nH		L03: tape and reel, for 3kpcs, embossed plastic tape (13"reel), 453215 size	
	322513:3,2x2,5x1,3	U68 : 680 nH			
	453215:4,5x3,2x1,5	151 : 150 μH			* not all combination is possible

All products according to RoHS (2015/863/EU)

1/18/2024

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Please read cautions and warnings and important notes at the end of this document.

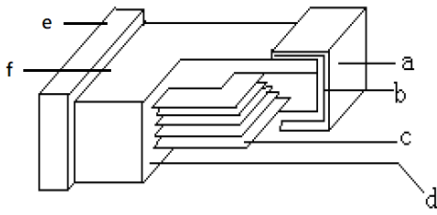
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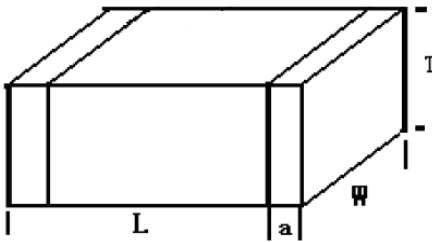
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Dimensions:



a	Ni/Sn Plating	c	Inner Electrode	e	Terminal Electrode
b	Ag Layer	d	Body	F	Ferrite



Type (LxWxT)	L	W	T	a
100505	1,00±0,15	0,50±0,15	0,50±0,15	0,25±0,10
160808	1,60±0,20	0,80±0,20	0,80±0,20	0,30±0,20
201209	2,00±0,20	1,20±0,20	0,90±0,20	0,50±0,30
201212	2,00±0,20	1,20±0,20	1,20±0,20	0,50±0,30
201609	2,00±0,20	1,60±0,20	0,90±0,20	0,50±0,30
252009	2,50±0,20	2,00±0,20	0,90±0,20	0,50±0,30
252010	2,50±0,20	2,00±0,20	1,00±0,20	0,50±0,30
321609	3,20±0,20	1,60±0,20	0,90±0,20	0,50±0,30
321611	3,20±0,20	1,60±0,20	1,10±0,20	0,50±0,30
322513	3,20±0,20	2,50±0,20	1,30±0,20	0,50±0,30
453215	4,50±0,20	3,20±0,20	1,50±0,20	0,50±0,30

in mm

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For Standard Electrical Specifications

Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	RDC (Ω)	IDC (mA) max.
09G2012091U0MT04A	1,0	M	1 MHz, 50mV	75	0,14±25%	300
09G2012092U2MT04A	2,2	M	1 MHz, 50mV	50	0,224±25%	220
09G2012093U3MT04A	3,3	M	1 MHz, 50mV	35	0,24±25%	200
09G2012094U7MT04A	4,7	M	1 MHz, 50mV	25	0,30±25%	180
09G2520101U0ME03A	1,0	M	1 MHz, 50mV	70	0,08±25%	400
09G2520102U2ME03A	2,2	M	1 MHz, 50mV	55	0,12±25%	300
09G2520103U3ME03A	3,3	M	1 MHz, 50mV	30	0,144±25%	260
09G2520104U7ME03A	4,7	M	1 MHz, 50mV	25	0,18±25%	240
09G160808U47MT04B	0,47	M	1 MHz, 50mV	100	0,10±30%	1050
09G160808U56MT04B	0,56	M	1 MHz, 50mV	100	0,12±30%	1050
09G1608081U0MT04B	1,0	M	1 MHz, 50mV	98	0,20±30%	900
09G1608081U8MT04B	1,8	M	1 MHz, 50mV	95	0,24±30%	750
09G1608082U2MT04B	2,2	M	1 MHz, 50mV	95	0,24±30%	750
09G1608084U7MT04B	4,7	M	1 MHz, 50mV	65	0,50±30%	700
09G2012091U0MT04B	1,0	M	1 MHz, 50mV	75	0,11±25%	1150
09G2012092U2MT04B	2,2	M	1 MHz, 50mV	50	0,20±25%	950
09G2012093U3MT04B	3,3	M	1 MHz, 50mV	35	0,22±25%	800
09G2012094U7MT04B	4,7	M	1 MHz, 50mV	25	0,30±25%	750
09G2012096U8MT04B	6,8	M	1 MHz, 50mV	25	0,30±25%	600
09G2016091U0ME04B	1,0	M	1 MHz, 50mV	70	0,10±25%	1400
09G2016092U2ME04B	2,2	M	1 MHz, 50mV	50	0,16±25%	1200
09G2016093U3ME04B	3,3	M	1 MHz, 50mV	40	0,20±25%	1200
09G2016094U7ME04B	4,7	M	1 MHz, 50mV	30	0,26±25%	1100
09G2520101U0ME03B	1,0	M	1 MHz, 50mV	70	0,06±25%	1600
09G2520102U2ME03B	2,2	M	1 MHz, 50mV	55	0,10±25%	1300
09G2520103U3ME03B	3,3	M	1 MHz, 50mV	30	0,14±25%	1200
09G2520104U7ME03B	4,7	M	1 MHz, 50mV	25	0,18±25%	1100

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Part No.	Inductance (uH)	Tolerance	Test Condition	Q min.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G1608085U6KT04J	5,6	K	4 MHz, 50mV	12	22	1,55	5
09G1608086U8KT04J	6,8	K	4 MHz, 50mV	12	20	1,55	5
09G1608088U2KT04J	8,2	K	4 MHz, 50mV	12	18	1,65	5
09G16080810UKT04J	10	K	2 MHz, 50mV	20	17	1,75	3
09G16080812UKT04J	12	K	2 MHz, 50mV	20	15	1,85	3
09G16080815UMT04J	15	M	1 MHz, 50mV	20	14	2,50	1
09G16080818UMT04J	18	M	1 MHz, 50mV	20	13	2,70	1
09G16080822UMT04J	22	M	1 MHz, 50mV	20	12	3,00	1
09G20120915UKT04J	15	K	1 MHz, 50mV	25	19	1,15	5
09G20120918UKT04J	18	K	1 MHz, 50mV	25	18	1,20	5
09G20120922UKT04J	22	K	1 MHz, 50mV	25	16	1,20	5
09G20120927UKT04J	27	K	1 MHz, 50mV	25	16	1,50	5
09G20120933UMT04J	33	M	1 MHz, 50mV	25	16	1,50	5
09G20121239UME03J	39	M	1 MHz, 50mV	25	16	1,50	5
09G20121247UME03J	47	M	1 MHz, 50mV	25	15	1,70	5
09G20121256UME03J	56	M	1 MHz, 50mV	25	10	2,60	5
09G20121268UME03J	68	M	1 MHz, 50mV	25	10	2,60	5
09G32160915UKT04J	15	K	1 MHz, 50mV	30	19	1,00	5
09G32160918UKT04J	18	K	1 MHz, 50mV	30	18	1,00	5
09G32160922UKT04J	22	K	1 MHz, 50mV	30	16	1,20	5
09G32160927UKT04J	27	K	1 MHz, 50mV	30	14	1,20	5
09G32160933UKT04J	33	K	1 MHz, 50mV	30	13	1,30	5
09G32160939UKT04J	39	K	1 MHz, 50mV	30	13	1,30	5
09G32161147UKE03J	47	K	1 MHz, 50mV	30	12	1,60	5
09G32161156UME03J	56	M	1 MHz, 50mV	30	12	1,80	5
09G32161168UME03J	68	M	1 MHz, 50mV	30	11	2,00	5
09G32161182UME03J	82	M	1 MHz, 50mV	30	11	2,40	5
09G321611101ME03J	100	M	1 MHz, 50mV	30	8	3,00	5
09G32251315UKE03J	15	K	1 MHz, 50mV	35	20	0,70	300
09G32251318UKE03J	18	K	1 MHz, 50mV	35	10	0,70	300
09G32251322UKE03J	22	K	1 MHz, 50mV	35	10	0,75	250
09G32251327UKE03J	27	K	1 MHz, 50mV	35	10	0,75	250
09G32251333UKE03J	33	K	1 MHz, 50mV	35	10	0,80	250
09G32251339UKE03J	39	K	1 MHz, 50mV	35	10	0,80	250
09G32251347UKE03J	47	K	1 MHz, 50mV	35	10	1,00	200
09G32251356UME03J	56	M	1 MHz, 50mV	35	5	1,20	200
09G32251368UME03J	68	M	1 MHz, 50mV	35	5	1,30	150
09G32251382UME03J	82	M	1 MHz, 50mV	35	5	1,50	150
09G322513101ME03J	100	M	1 MHz, 50mV	35	5	1,50	150
09G322513121ME03J	120	M	1 MHz, 50mV	35	5	1,80	150
09G45321515UKL03J	15	K	1 MHz, 50mV	35	14	1,00	400
09G45321518UKL03J	18	K	1 MHz, 50mV	35	13	1,00	400
09G45321522UKL03J	22	K	1 MHz, 50mV	35	12	1,30	300
09G45321527UKL03J	27	K	1 MHz, 50mV	35	10	1,30	300
09G45321533UKL03J	33	K	1 MHz, 50mV	40	10	1,50	250

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Part No.	Inductance (uH)	Tolerance	Test Condition	Q min.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G45321539UKL03J	39	K	1 MHz, 50mV	40	10	1,50	250
09G45321547UKL03J	47	K	1 MHz, 50mV	40	8	1,65	250
09G45321556UKL03J	56	K	1 MHz, 50mV	40	8	1,80	250
09G45321568UML03J	68	M	1 MHz, 50mV	40	6	2,00	200
09G45321582UML03J	82	M	1 MHz, 50mV	40	6	2,30	200
09G453215101ML03J	100	M	1 MHz, 50mV	40	6	2,30	150
09G453215121ML03J	120	M	1 MHz, 50mV	40	6	2,50	150
09G100505U39KT10U	0,39	K	10 MHz,	15	70	1,30	20
09G100505U47KT10U	0,47	K	10 MHz,	15	68	1,50	20
09G100505U56KT10U	0,56	K	10 MHz,	15	55	2,00	20
09G100505U68KT10U	0,68	K	10 MHz,	15	50	2,30	20
09G100505U82KT10U	0,82	K	10 MHz,	15	45	3,00	18
09G100505U0KT10U	1,0	K	10 MHz,	20	40	0,90	25
09G100505U2KT10U	1,2	K	10 MHz,	20	35	1,20	25
09G100505U5KT10U	1,5	K	10 MHz,	20	30	1,30	20
09G100505U8KT10U	1,8	K	10 MHz,	20	30	1,40	20
09G1608081U0KT04U	1,0	K	10 MHz,	25	75	0,50	25
09G1608081U2KT04U	1,2	K	10 MHz,	25	65	0,55	25
09G1608081U5KT04U	1,5	K	10 MHz,	25	60	0,70	25
09G1608081U8KT04U	1,8	K	10 MHz,	25	55	0,75	25
09G1608082U2KT04U	2,2	K	10 MHz,	25	50	0,80	25
09G1608082U7KT04U	2,7	K	10 MHz,	25	45	0,90	15
09G1608083U3KT04U	3,3	K	10 MHz,	25	40	1,00	15
09G1608083U9KT04U	3,9	K	10 MHz,	25	35	1,30	15
09G1608084U7KT04U	4,7	K	10 MHz,	25	33	1,50	15
09G2012091U0KT04U	1,0	K	10 MHz,	35	75	0,40	50
09G2012091U2KT04U	1,2	K	10 MHz,	35	65	0,40	50
09G2012091U5KT04U	1,5	K	10 MHz,	35	60	0,40	50
09G2012091U8KT04U	1,8	K	10 MHz,	35	55	0,40	50
09G2012092U2KT04U	2,2	K	10 MHz,	35	50	0,60	50
09G2012092U7KT04U	2,7	K	10 MHz,	35	45	0,60	50
09G2012093U3KT04U	3,3	K	10 MHz,	35	41	0,60	50
09G2012093U9KT04U	3,9	K	10 MHz,	35	38	0,80	50
09G2012094U7KT04U	4,7	K	10 MHz,	35	35	0,90	30
09G3216091U0KT04U	1,0	K	10 MHz,	35	75	0,30	100
09G3216091U2KT04U	1,2	K	10 MHz,	35	65	0,40	100
09G3216091U5KT04U	1,5	K	10 MHz,	35	60	0,40	50
09G3216091U8KT04U	1,8	K	10 MHz,	35	55	0,40	50
09G3216092U2KT04U	2,2	K	10 MHz,	35	50	0,50	50
09G3216092U7KT04U	2,7	K	10 MHz,	35	45	0,50	50
09G3216093U3KT04U	3,3	K	10 MHz,	35	41	0,50	50
09G3216093U9KT04U	3,9	K	10 MHz,	35	38	0,60	50
09G3216094U7KT04U	4,7	K	10 MHz,	35	35	0,65	25
09G3216095U6KT04U	5,6	K	4 MHz, 50mV	35	32	0,80	25
09G3225131U0KE03U	1,0	K	10 MHz,	40	70	0,20	600
09G3225131U2KE03U	1,2	K	10 MHz,	40	70	0,20	600

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Part No.	Inductance (uH)	Tolerance	Test Condition	Q min.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G3225131U5KE03U	1,5	K	10 MHz,	40	70	0,30	500
09G3225131U8KE03U	1,8	K	10 MHz,	40	70	0,30	500
09G3225132U2KE03U	2,2	K	10 MHz,	40	50	0,30	500
09G3225132U7KE03U	2,7	K	10 MHz,	40	50	0,30	500
09G3225133U3KE03U	3,3	K	10 MHz,	40	50	0,40	500
09G3225133U9KE03U	3,9	K	10 MHz,	40	30	0,40	500
09G3225134U7KE03U	4,7	K	10 MHz,	40	30	0,50	500
09G3225135U6KE03U	5,6	K	4 MHz, 50mV	35	30	0,60	450
09G4532151U0KL03U	1,0	K	10 MHz,	35	50	0,55	650
09G4532151U2KL03U	1,2	K	10 MHz,	35	50	0,55	650
09G4532151U5KL03U	1,5	K	10 MHz,	35	45	0,55	600
09G4532151U8KL03U	1,8	K	10 MHz,	35	45	0,65	600
09G4532152U2KL03U	2,2	K	10 MHz,	35	40	0,65	500
09G4532152U7KL03U	2,7	K	10 MHz,	35	40	0,70	500
09G4532153U3KL03U	3,3	K	10 MHz,	35	35	0,75	500
09G4532153U9KL03U	3,9	K	10 MHz,	35	35	0,80	500
09G4532154U7KL03U	4,7	K	10 MHz,	30	25	0,90	500
09G4532155U6KL03U	5,6	K	4 MHz, 50mV	30	20	0,90	500
09G4532156U8KL03U	6,8	K	4 MHz, 50mV	30	18	1,00	500
09G10050547NKT10V	0,047	K	50 MHz,	10	220	0,45	25
09G10050556NKT10V	0,056	K	50 MHz,	10	210	0,45	25
09G10050568NKT10V	0,068	K	50 MHz,	10	210	0,45	25
09G10050582NKT10V	0,082	K	50 MHz,	10	200	0,45	25
09G100505U10KT10V	0,10	K	25 MHz,	15	200	0,70	25
09G100505U12KT10V	0,12	K	25 MHz,	15	165	0,70	25
09G100505U15KT10V	0,15	K	25 MHz,	15	140	0,80	25
09G100505U18KT10V	0,18	K	25 MHz,	15	120	0,80	25
09G100505U22KT10V	0,22	K	25 MHz,	15	110	1,00	25
09G100505U27KT10V	0,27	K	25 MHz,	15	95	1,20	25
09G100505U33KT10V	0,33	K	25 MHz,	15	85	1,20	25
09G16080847NKT04V	0,047	K	50 MHz,	15	260	0,20	50
09G16080856NKT04V	0,056	K	50 MHz,	15	260	0,20	50
09G16080868NKT04V	0,068	K	50 MHz,	15	250	0,20	50
09G16080882NKT04V	0,082	K	50 MHz,	15	245	0,20	50
09G160808U10KT04V	0,10	K	25 MHz,	20	240	0,25	50
09G160808U12KT04V	0,12	K	25 MHz,	20	205	0,30	50
09G160808U15KT04V	0,15	K	25 MHz,	20	180	0,30	50
09G160808U18KT04V	0,18	K	25 MHz,	20	165	0,30	50
09G160808U22KT04V	0,22	K	25 MHz,	20	150	0,40	50
09G160808U27KT04V	0,27	K	25 MHz,	20	136	0,45	50
09G160808U33KT04V	0,33	K	25 MHz,	20	125	0,50	50
09G160808U39KT04V	0,39	K	25 MHz,	20	110	0,60	50
09G160808U47KT04V	0,47	K	25 MHz,	20	105	0,70	50
09G160808U56KT04V	0,56	K	25 MHz,	20	95	0,70	50
09G160808U68KT04V	0,68	K	25 MHz,	20	90	0,90	50
09G160808U82KT04V	0,82	K	25 MHz,	20	85	1,00	50

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Part No.	Inductance (uH)	Tolerance	Test Condition	Q min.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G20120947NKT04V	0,047	K	50 MHz,	25	320	0,15	300
09G20120956NKT04V	0,056	K	50 MHz,	25	320	0,15	300
09G20120968NKT04V	0,068	K	50 MHz,	25	280	0,20	300
09G20120982NKT04V	0,082	K	50 MHz,	25	280	0,20	300
09G201209U10KT04V	0,10	K	25 MHz,	20	235	0,20	250
09G201209U12KT04V	0,12	K	25 MHz,	20	220	0,25	250
09G201209U15KT04V	0,15	K	25 MHz,	20	200	0,25	250
09G201209U18KT04V	0,18	K	25 MHz,	20	185	0,30	250
09G201209U22KT04V	0,22	K	25 MHz,	20	170	0,30	250
09G201209U27KT04V	0,27	K	25 MHz,	20	150	0,40	250
09G201209U33KT04V	0,33	K	25 MHz,	20	145	0,40	250
09G201209U39KT04V	0,39	K	25 MHz,	25	135	0,50	200
09G201209U47KT04V	0,47	K	25 MHz,	25	125	0,50	200
09G201209U56KT04V	0,56	K	25 MHz,	25	115	0,60	150
09G201209U68KT04V	0,68	K	25 MHz,	25	105	0,65	150
09G201209U82KT04V	0,82	K	25 MHz,	25	100	0,70	150
09G32160947NKT04V	0,047	K	50 MHz,	30	320	0,15	300
09G32160956NKT04V	0,056	K	50 MHz,	30	320	0,20	300
09G32160968NKT04V	0,068	K	50 MHz,	30	280	0,25	300
09G32160982NKT04V	0,082	K	50 MHz,	30	280	0,25	300
09G321609U10KT04V	0,10	K	25 MHz,	25	235	0,25	250
09G321609U12KT04V	0,12	K	25 MHz,	25	220	0,25	250
09G321609U15KT04V	0,15	K	25 MHz,	25	200	0,25	250
09G321609U18KT04V	0,18	K	25 MHz,	25	185	0,30	250
09G321609U22KT04V	0,22	K	25 MHz,	25	170	0,30	250
09G321609U27KT04V	0,27	K	25 MHz,	25	150	0,30	250
09G321609U33KT04V	0,33	K	25 MHz,	25	145	0,30	250
09G321609U39KT04V	0,39	K	25 MHz,	30	135	0,50	200
09G321609U47KT04V	0,47	K	25 MHz,	30	125	0,50	200
09G321609U56KT04V	0,56	K	25 MHz,	30	115	0,50	150
09G321609U68KT04V	0,68	K	25 MHz,	30	105	0,50	150
09G321609U82KT04V	0,82	K	25 MHz,	30	100	0,60	150
09G2012095U6KT04X	5,6	K	4 MHz, 50mV	30	32	1,00	15
09G2012096U8KT04X	6,8	K	4 MHz, 50mV	30	29	1,05	15
09G2012098U2KT04X	8,2	K	4 MHz, 50mV	30	26	1,05	15
09G20120910UKT04X	10	K	2 MHz, 50mV	30	24	1,15	15
09G20120912UKT04X	12	K	2 MHz, 50mV	30	22	1,15	15
09G3216096U8KT04X	6,8	K	4 MHz, 50mV	35	29	0,80	25
09G3216098U2KT04X	8,2	K	4 MHz, 50mV	35	26	0,80	25
09G32160910UKT04X	10	K	2 MHz, 50mV	35	24	0,80	25
09G32160912UKT04X	12	K	2 MHz, 50mV	35	22	0,90	15
09G3225136U8KE03X	6,8	K	4 MHz, 50mV	35	20	0,60	450
09G3225138U2KE03X	8,2	K	4 MHz, 50mV	35	20	0,70	400
09G32251310UKE03X	10	K	2 MHz, 50mV	35	20	0,70	400
09G32251312UKE03X	12	K	2 MHz, 50mV	35	20	0,70	400
09G4532158U2KL03X	8,2	K	4 MHz, 50mV	30	17	1,00	450

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Part No.	Inductance (uH)	Tolerance	Test Condition	Q min.	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G45321510UKL03X	10	K	2 MHz, 50mV	30	16	1,00	450
09G45321512UKL03X	12	K	2 MHz, 50mV	35	15	1,00	450

Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G20120915UMT044	15	M	1 MHz, 50mV	19	0,65	100
09G32160915UMT044	15	M	1 MHz, 50mV	19	0,65	100
09G32160918UMT044	18	M	1 MHz, 50mV	18	0,65	100
09G2012091U0MT042	1,0	M	1 MHz, 50mV	75	0,24	800
09G2012091U2MT042	1,2	M	1 MHz, 50mV	65	0,24	800
09G2012091U5MT042	1,5	M	1 MHz, 50mV	60	0,30	700
09G2012091U8MT042	1,8	M	1 MHz, 50mV	55	0,36	600
09G2012092U2MT042	2,2	M	1 MHz, 50mV	50	0,36	600
09G2012092U7MT042	2,7	M	1 MHz, 50mV	45	0,36	600
09G2012093U3MT042	3,3	M	1 MHz, 50mV	41	0,40	350
09G2012093U9MT042	3,9	M	1 MHz, 50mV	38	0,40	350
09G2012094U7MT042	4,7	M	1 MHz, 50mV	35	0,40	350
09G2520091U0ME032	1,0	M	1 MHz, 50mV	70	0,12	1500
09G2520091U2ME032	1,2	M	1 MHz, 50mV	50	0,15	1500
09G2520091U5ME032	1,5	M	1 MHz, 50mV	50	0,15	1500
09G2520091U8ME032	1,8	M	1 MHz, 50mV	40	0,18	1000
09G2520092U2ME032	2,2	M	1 MHz, 50mV	40	0,18	1000
09G2520092U7ME032	2,7	M	1 MHz, 50mV	30	0,22	1000
09G2520093U3ME032	3,3	M	1 MHz, 50mV	30	0,22	1000
09G2520093U9ME032	3,9	M	1 MHz, 50mV	25	0,26	1000
09G2520094U7ME032	4,7	M	1 MHz, 50mV	25	0,26	1000
09G3216091U0MT042	1,0	M	1 MHz, 50mV	60	0,15	1200
09G3216091U2MT042	1,2	M	1 MHz, 50mV	65	0,15	1200
09G3216091U5MT042	1,5	M	1 MHz, 50mV	60	0,17	1000
09G3216091U8MT042	1,8	M	1 MHz, 50mV	55	0,24	900
09G3216092U2MT042	2,2	M	1 MHz, 50mV	50	0,24	900
09G3216092U7MT042	2,7	M	1 MHz, 50mV	45	0,30	800
09G3216093U3MT042	3,3	M	1 MHz, 50mV	41	0,30	800
09G3216093U9MT042	3,9	M	1 MHz, 50mV	38	0,38	700
09G3216094U7MT042	4,7	M	1 MHz, 50mV	35	0,38	700
09G3216095U6MT042	5,6	M	1 MHz, 50mV	32	0,45	500
09G20120947NMT041	0,047	M	1 MHz, 50mV	280	0,10	1100
09G20120956NMT041	0,056	M	1 MHz, 50mV	280	0,10	1100
09G20120968NMT041	0,068	M	1 MHz, 50mV	250	0,15	1100
09G20120982NMT041	0,082	M	1 MHz, 50mV	250	0,15	1100
09G201209U10MT041	0,10	M	1 MHz, 50mV	210	0,15	1100
09G201209U12MT041	0,12	M	1 MHz, 50mV	200	0,15	1100
09G201209U15MT041	0,15	M	1 MHz, 50mV	175	0,15	1100
09G201209U18MT041	0,18	M	1 MHz, 50mV	160	0,15	1100
09G201209U22MT041	0,22	M	1 MHz, 50mV	150	0,15	1100
09G201209U27MT041	0,27	M	1 MHz, 50mV	130	0,15	1100

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Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G201209U33MT041	0,33	M	1 MHz, 50mV	120	0,15	1100
09G201209U39MT041	0,39	M	1 MHz, 50mV	110	0,15	1100
09G201209U47MT041	0,47	M	1 MHz, 50mV	100	0,15	1100
09G201209U56MT041	0,56	M	1 MHz, 50mV	100	0,36	800
09G201209U68MT041	0,68	M	1 MHz, 50mV	95	0,36	800
09G201209U82MT041	0,82	M	1 MHz, 50mV	90	0,36	800
09G2012095U6MT043	5,6	M	1 MHz, 50mV	32	0,50	250
09G2012096U8MT043	6,8	M	1 MHz, 50mV	29	0,50	250
09G2012098U2MT043	8,2	M	1 MHz, 50mV	26	0,56	250
09G20120910UMT043	10	M	1 MHz, 50mV	24	0,56	250
09G20120912UMT043	12	M	1 MHz, 50mV	22	0,56	250
09G3216096U8MT043	6,8	M	1 MHz, 50mV	29	0,45	500
09G3216098U2MT043	8,2	M	1 MHz, 50mV	26	0,55	300
09G32160910UMT043	10	M	1 MHz, 50mV	24	0,55	300
09G32160912UMT043	12	M	1 MHz, 50mV	22	0,55	300
09G1608085U6MT048	5,6	M	1 MHz, 50mV	22	0,90	60
09G1608086U8MT048	6,8	M	1 MHz, 50mV	20	0,90	60
09G1608088U2MT048	8,2	M	1 MHz, 50mV	18	1,05	60
09G16080810UMT048	10	M	1 MHz, 50mV	17	1,15	60
09G16080812UMT048	12	M	1 MHz, 50mV	15	1,25	60
09G20120915UMT048	15	M	1 MHz, 50mV	19	0,75	50
09G20120918UMT048	18	M	1 MHz, 50mV	18	0,75	50
09G20120922UMT048	22	M	1 MHz, 50mV	16	0,75	50
09G32160915UMT048	15	M	1 MHz, 50mV	19	0,80	50
09G32160918UMT048	18	M	1 MHz, 50mV	18	0,80	50
09G32160922UMT048	22	M	1 MHz, 50mV	16	1,00	50
09G32160927UMT048	27	M	1 MHz, 50mV	14	1,00	50
09G1608081U0MT046	1,0	M	1 MHz, 50mV	75	0,30	150
09G1608081U2MT046	1,2	M	1 MHz, 50mV	65	0,30	150
09G1608081U5MT046	1,5	M	1 MHz, 50mV	60	0,35	120
09G1608081U8MT046	1,8	M	1 MHz, 50mV	55	0,40	120
09G1608082U2MT046	2,2	M	1 MHz, 50mV	50	0,50	120
09G1608082U7MT046	2,7	M	1 MHz, 50mV	45	0,60	100
09G1608083U3MT046	3,3	M	1 MHz, 50mV	40	0,65	100
09G1608083U9MT046	3,9	M	1 MHz, 50mV	35	0,70	80
09G1608084U7MT046	4,7	M	1 MHz, 50mV	33	0,75	80
09G2012091U0MT046	1,0	M	1 MHz, 50mV	75	0,26	220
09G2012091U2MT046	1,2	M	1 MHz, 50mV	65	0,26	220
09G2012091U5MT046	1,5	M	1 MHz, 50mV	60	0,30	180
09G2012091U8MT046	1,8	M	1 MHz, 50mV	55	0,30	180
09G2012092U2MT046	2,2	M	1 MHz, 50mV	50	0,36	150
09G2012092U7MT046	2,7	M	1 MHz, 50mV	45	0,36	150
09G2012093U3MT046	3,3	M	1 MHz, 50mV	41	0,40	120
09G2012093U9MT046	3,9	M	1 MHz, 50mV	38	0,40	120
09G2012094U7MT046	4,7	M	1 MHz, 50mV	35	0,40	120
09G3216091U0MT046	1,0	M	1 MHz, 50mV	75	0,20	250

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Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G3216091U2MT046	1,2	M	1 MHz, 50mV	65	0,20	250
09G3216091U5MT046	1,5	M	1 MHz, 50mV	60	0,25	250
09G3216091U8MT046	1,8	M	1 MHz, 50mV	55	0,25	250
09G3216092U2MT046	2,2	M	1 MHz, 50mV	50	0,30	200
09G3216092U7MT046	2,7	M	1 MHz, 50mV	45	0,30	200
09G3216093U3MT046	3,3	M	1 MHz, 50mV	41	0,30	200
09G3216093U9MT046	3,9	M	1 MHz, 50mV	38	0,35	150
09G3216094U7MT046	4,7	M	1 MHz, 50mV	35	0,35	150
09G3216095U6MT046	5,6	M	1 MHz, 50mV	32	0,50	100
09G16080847NMT045	0,047	M	1 MHz, 50mV	260	0,12	150
09G16080856NMT045	0,056	M	1 MHz, 50mV	260	0,12	150
09G16080868NMT045	0,068	M	1 MHz, 50mV	250	0,12	150
09G16080882NMT045	0,082	M	1 MHz, 50mV	245	0,12	150
09G160808U10MT045	0,10	M	1 MHz, 50mV	240	0,15	150
09G160808U12MT045	0,12	M	1 MHz, 50mV	205	0,20	150
09G160808U15MT045	0,15	M	1 MHz, 50mV	180	0,20	150
09G160808U18MT045	0,18	M	1 MHz, 50mV	165	0,20	150
09G160808U22MT045	0,22	M	1 MHz, 50mV	150	0,25	150
09G160808U27MT045	0,27	M	1 MHz, 50mV	136	0,30	100
09G160808U33MT045	0,33	M	1 MHz, 50mV	125	0,30	100
09G160808U39MT045	0,39	M	1 MHz, 50mV	110	0,35	100
09G160808U47MT045	0,47	M	1 MHz, 50mV	105	0,45	100
09G160808U56MT045	0,56	M	1 MHz, 50mV	95	0,45	100
09G160808U68MT045	0,68	M	1 MHz, 50mV	90	0,55	100
09G160808U82MT045	0,82	M	1 MHz, 50mV	85	0,60	100
09G20120947NMT045	0,047	M	1 MHz, 50mV	320	0,15	350
09G20120956NMT045	0,056	M	1 MHz, 50mV	320	0,15	350
09G20120968NMT045	0,068	M	1 MHz, 50mV	280	0,20	350
09G20120982NMT045	0,082	M	1 MHz, 50mV	280	0,20	350
09G201209U10MT045	0,10	M	1 MHz, 50mV	235	0,20	350
09G201209U12MT045	0,12	M	1 MHz, 50mV	220	0,20	350
09G201209U15MT045	0,15	M	1 MHz, 50mV	200	0,20	350
09G201209U18MT045	0,18	M	1 MHz, 50mV	185	0,25	300
09G201209U22MT045	0,22	M	1 MHz, 50mV	170	0,25	300
09G201209U27MT045	0,27	M	1 MHz, 50mV	150	0,25	300
09G201209U33MT045	0,33	M	1 MHz, 50mV	145	0,25	300
09G201209U39MT045	0,39	M	1 MHz, 50mV	135	0,30	250
09G201209U47MT045	0,47	M	1 MHz, 50mV	125	0,30	250
09G201209U56MT045	0,56	M	1 MHz, 50mV	115	0,36	200
09G201209U68MT045	0,68	M	1 MHz, 50mV	105	0,36	200
09G201209U82MT045	0,82	M	1 MHz, 50mV	100	0,36	200
09G32160947NMT045	0,047	M	1 MHz, 50mV	320	0,15	450
09G32160956NMT045	0,056	M	1 MHz, 50mV	320	0,15	450
09G32160968NMT045	0,068	M	1 MHz, 50mV	280	0,20	450
09G32160982NMT045	0,082	M	1 MHz, 50mV	280	0,20	450
09G321609U10MT045	0,10	M	1 MHz, 50mV	235	0,20	350

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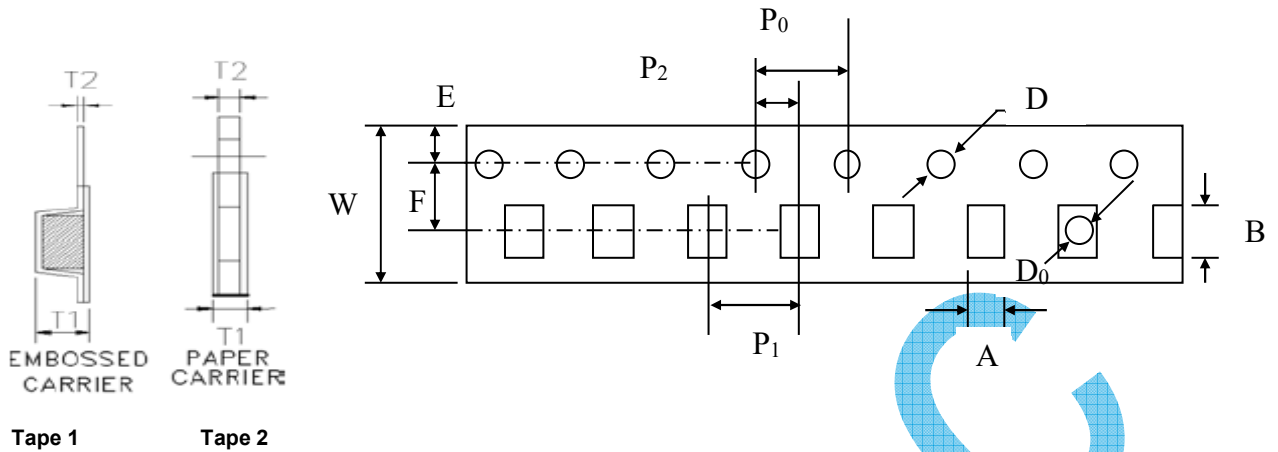
Part No.	Inductance (uH)	Tolerance	Test Condition	SRF (MHz) min.	RDC (Ω) max.	IDC (mA) max.
09G321609U12MT045	0,12	M	1 MHz, 50mV	220	0,20	350
09G321609U15MT045	0,15	M	1 MHz, 50mV	200	0,20	350
09G321609U18MT045	0,18	M	1 MHz, 50mV	185	0,20	350
09G321609U22MT045	0,22	M	1 MHz, 50mV	170	0,20	350
09G321609U27MT045	0,27	M	1 MHz, 50mV	150	0,20	350
09G321609U33MT045	0,33	M	1 MHz, 50mV	145	0,20	350
09G321609U39MT045	0,39	M	1 MHz, 50mV	135	0,30	220
09G321609U47MT045	0,47	M	1 MHz, 50mV	125	0,30	220
09G321609U56MT045	0,56	M	1 MHz, 50mV	115	0,30	220
09G321609U68MT045	0,68	M	1 MHz, 50mV	105	0,30	220
09G321609U82MT045	0,82	M	1 MHz, 50mV	100	0,30	220
09G2012095U6MT047	5,6	M	1 MHz, 50mV	32	0,60	100
09G2012096U8MT047	6,8	M	1 MHz, 50mV	29	0,60	100
09G2012098U2MT047	8,2	M	1 MHz, 50mV	26	0,65	100
09G20120910UMT047	10	M	1 MHz, 50mV	24	0,65	100
09G20120912UMT047	12	M	1 MHz, 50mV	22	0,65	100
09G3216096U8MT047	6,8	M	1 MHz, 50mV	29	0,50	100
09G3216098U2MT047	8,2	M	1 MHz, 50mV	26	0,50	100
09G32160910UMT047	10	M	1 MHz, 50mV	24	0,50	100
09G32160912UMT047	12	M	1 MHz, 50mV	22	0,60	100

Operating temperature range: -40~+85°C

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SMD Tape Dimensions



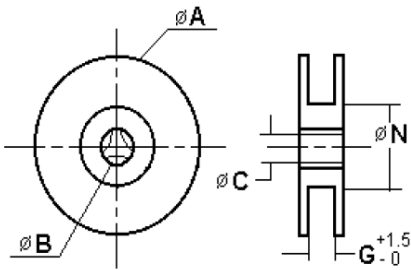
Type	A	B	W	F	E	P1	P2	P0	D	T1	D0	T2
100505	0,65±0,1	1,15±0,1	8,0±0,2	3,5±0,1	1,75±0,2	2,0±0,1	2,0±0,1	4,0±0,2	1,55±0,1	0,60±0,1		
160808	1,10±0,2	1,90±0,2	8,0±0,2	3,5±0,1	1,75±0,2	4,0±0,2	2,0±0,1	4,0±0,2	1,55±0,1	0,95±0,1		
201209	1,50±0,2	2,30±0,2	8,0±0,2	3,5±0,1	1,75±0,2	4,0±0,2	2,0±0,1	4,0±0,2	1,55±0,1	0,95±0,1		
321609	1,90±0,2	3,50±0,2	8,0±0,2	3,5±0,1	1,75±0,2	4,0±0,2	2,0±0,1	4,0±0,2	1,55±0,1	0,95±0,1		
201212	1,52±0,1	2,41±0,1	8,00±0,2	1,75±0,1	3,50±0,1	4,00±0,1	2,00±0,1	4,00±0,1	1,50±0,1	1,35±0,1	1,00±0,1	0,23±0,2
201609	1,90±0,1	2,30±0,1	8,00±0,2	1,75±0,1	3,50±0,1	4,00±0,1	2,00±0,1	4,00±0,1	1,50±0,1	1,15±0,1	-	0,23±0,2
252009	2,20±0,1	2,75±0,1	8,00±0,2	1,75±0,1	3,50±0,1	4,00±0,1	2,00±0,1	4,00±0,1	1,50±0,1	1,05±0,1	1,00±0,1	0,23±0,2
252010	2,20±0,1	2,75±0,1	8,00±0,2	1,75±0,1	3,50±0,1	4,00±0,1	2,00±0,1	4,00±0,1	1,50±0,1	1,05±0,1	1,00±0,1	0,23±0,2
321611	1,88±0,1	3,50±0,1	8,00±0,2	1,75±0,1	3,50±0,1	4,00±0,1	2,00±0,05	4,00±0,1	1,50±0,1	1,27±0,1	1,00±0,1	0,23±0,2
322513	2,77±0,1	3,42±0,1	8,00±0,2	1,75±0,1	3,50±0,1	4,00±0,1	2,00±0,05	4,00±0,1	1,50±0,1	1,55±0,1	1,00±0,1	0,23±0,2
453215	3,66±0,1	4,95±0,1	12,00±0,2	1,75±0,1	5,50±0,1	8,00±0,1	2,00±0,1	4,00±0,1	1,50±0,1	1,85±0,1	1,50±0,1	0,24±0,2

in mm

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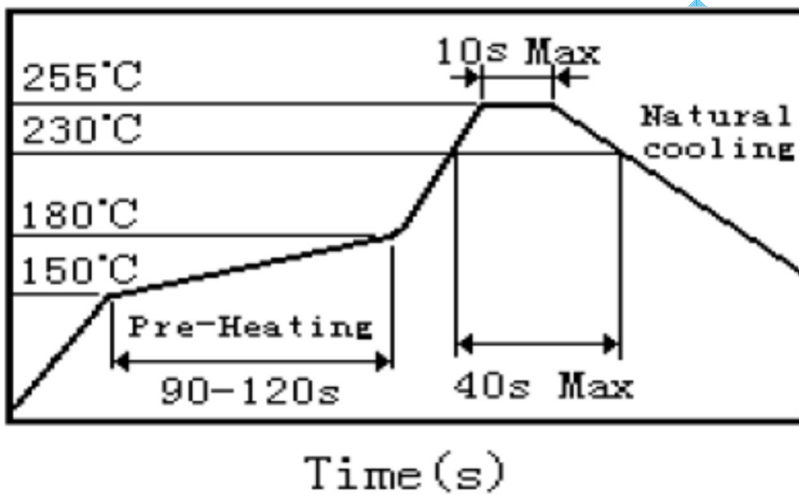
Reel Dimensions



Type	A	B	C	N	G
All beside 453215	178±2	22±2	12,5±1,5	57±2	8
453215	330±2	22±2	12,5±1,5	98±2	12

in mm

Soldering Profile



Time (s)

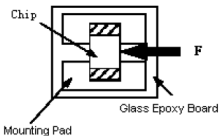
Stock period

The performance of these products, including the solderability, is guaranteed for 12 months, provided that they remain packed as they were when delivered and stored at a temperature of $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and a relative humidity less than 70%RH

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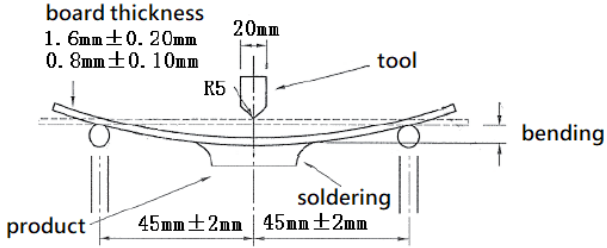
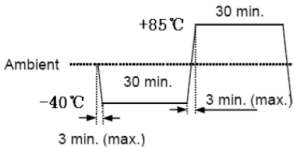
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Environmental Characteristics

Item	Specification	Test Methods
Solderability	At least 95% of terminal electrode should be covered with solder	Preheating temperature: 120~150°C Preheating time: 60s Solder: 96,5%Sn/3,0%Ag/0,5%Cu of the Sn solder. Solder temperature: 245±5°C Immersion tin depth: 10mm Duration: 5±1s Dip performance to a flux of about: 3~5s
Resistance to Soldering	At least 95% of terminal electrode should be covered with solder. No mechanical damage. Inductance: V, U, 1, 2, 5, 6 Material: change within ±20% X, 3, 7 Material: change within ±25% A, B, J, 4, 8 Material: change within ±30% Q value change (ferrite) : within ±30% (V, U, X, J Material only)	Preheating temperature: 120~150°C Preheating time: 60s Solder: 96,5%Sn/3,0%Ag/0,5%Cu of the Sn solder. Solder temperature: 260±5°C Immersion tin depth: 10mm Duration: 10±1s Dip performance to a flux of about: 3~5s
High temperature resistance	No mechanical damage. Inductance change: within ±10% Q value change (ferrite): within ±30% (V, U, X, J Material only)	Testing time: 1000+24/-0 hrs. Temperature: 85±2°C
Static Humidity	No mechanical damage. Inductance change: within ±10% Q value change (ferrite): within ±30% (V, U, X, J Material only)	Humidity: 90~95%RH Temperature: 60±2° Testing time: 1000+24/-0 hrs.
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, 2016, 2520, 3216 series; 15N force for 3225, 4532 series. Keep time: 10±1s 
Low temperature resistance	No mechanical damage. Inductance change: within ±10% Q value change (ferrite): within ±30% (V, U, X, J Material only)	Temperature: -40±2°C Testing time: 1000+24/-0 hrs.
Bending strength	No mechanical damage.	Testing board: glass epoxy-resin substrate for 0,5 mm/s compression speed, curvature: 2mm , hold time 20±1s.

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		 <p>board thickness 1.6mm ± 0.20mm 0.8mm ± 0.10mm</p> <p>20mm R5 tool bending product 45mm ± 2mm soldering 45mm ± 2mm</p>
Vibration	<p>No mechanical damage. Inductance change: within ±10% Q value change (ferrite): within ±30% (V, U, X, J Material only)</p>	<p>Amplitude modulation: 1,5mm Test time: A period of 2h in each of 3 mutually perpendicular directions. Frequency range: 10Hz ~ 55Hz ~ 10Hz for 1min.</p>
High temperature load	<p>No mechanical damage. Inductance change: within ±10% Q value change (ferrite): within ±30% (V, U, X, J Material only)</p>	<p>Impose current: at room Testing time: 1000+24/-0 hrs. Temperature: 85±2°C</p>
Temperature Shock	<p>No mechanical damage. Inductance change: within ±10% Q value change (ferrite): within ±30% (V, U, X, J Material only)</p>	<p>Temperature: -40°C for 30±3min +85°C for 30±3min Number of cycles: 32</p> 

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