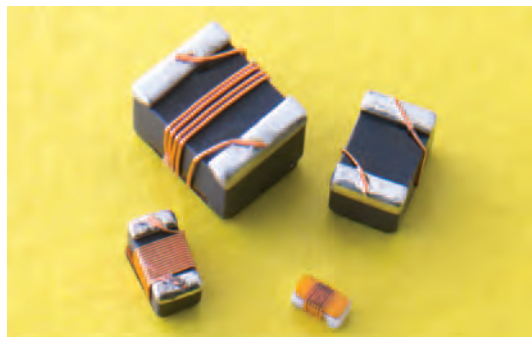


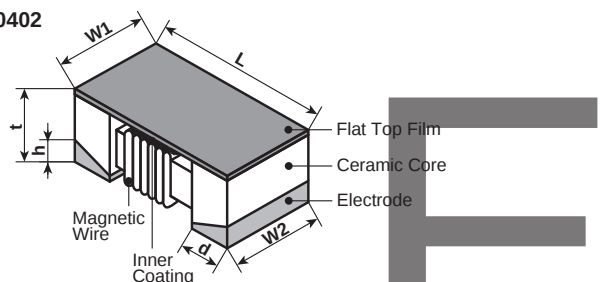


features

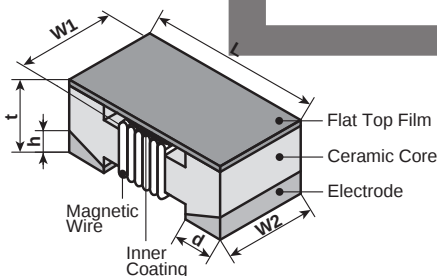
- Surface mount
- Operating temperature: -40°C ~ +125°C
- Flat top suitable for high speed pick-and-place components
- Excellent high frequency applications
- High Q factors and self-resonant frequency values
- Products with lead-free terminations meet EU RoHS requirements
- AEC-Q200 Tested

dimensions and construction

0402



0603, 0805, 1008



Size Code	Dimensions inches (mm)					
	L	W1	W2	t	h	d
KQT0402	.039±.004 (1.0±0.1)	.02±.004 (0.5±0.1)	.02±.004 (0.5±0.1)	.022±.004 (0.55±0.1)	.006±.004 (0.15±0.1)	.01±.004 (0.25±0.1)
KQ0603	.063±.004 (1.6±0.1)	.039±.004 (1.0±0.1)	.033±.004 (0.85±0.1)	.035±.004 (0.9±0.1)	.01±.006 (0.25±0.15)	.014±.004 (0.35±0.1)
KQ0805	.079±.008 (2.0±0.2)	.059±.008 (1.5±0.2) (3.3nH-390nH) .063±.008 (1.6±0.2) (470nH-820nH)	.053±.004 (1.35±0.1)	.051±.008 (1.3±0.2)	.016±.006 (0.40±0.15)	.018±.004 (0.45±0.1)
KQ1008	.098±.008 (2.5±0.2)	.087±.008 (2.2±0.2)	.079±.004 (2.0±0.1)	.071 ^{+.008} ₋₀ (1.8 ^{+.02} ₋₀)	.018±.006 (0.45±0.15)	.018±.004 (0.45±0.1)

ordering information

KQ	1008	T	TE	10N	J
Type	Size Code	Termination Material	Packaging	Nominal Inductance	Tolerance
KQ KQT	0402 0603 0805 1008	T: Sn	TP: 2mm pitch paper (0402: 10,000 pieces/reel) TD: 7" paper tape (0402: 2,000 pieces/reel) TE: 7" embossed plastic (0603, 0805, 1008: 2,000 pieces/reel)	3 digits: 10N: 10nH R10: 0.1μH 1R0: 1.0μH	B: ±0.1nH C: ±0.2nH G: ±2% H: ±3% J: ±5% K: ±10% M: ±20%

For further information
on packaging, please
refer to Appendix A.

applications and ratings

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)
KQT0402T**1N0*	—	1.0	250	B: ±0.1nH C: ±0.2nH	16	250	11000	0.045	1360
KQT0402T**1N9*		1.9					9600	0.070	1040
KQT0402T**2N0*		2.0			8000				
KQT0402T**2N2*		2.2					18	0.120	700
KQT0402T**2N4*		2.4							
KQT0402T**2N7*		2.7			19		7200	0.066	840
KQT0402T**3N3*		3.3							
KQT0402T**3N6*		3.6		18			6000	0.091	800
KQT0402T**3N9*		3.9							
KQT0402T**4N3*		4.3		20	5800		0.083	760	
KQT0402T**4N7*		4.7							
KQT0402T**5N1*		5.1		22	4800		0.086	680	
KQT0402T**5N6*		5.6							
KQT0402T**6N2*		6.2		20	5800		0.104	680	
KQT0402T**6N8*		6.8							
KQT0402T**7N5*		7.5		20	4200		0.150	650	
KQT0402T**8N2*		8.2							
KQT0402T**8N7*		8.7		22	4160		0.104	680	
KQT0402T**9N0*		9.0							
KQT0402T**9N5*		9.5		20	4000		0.150	650	
KQT0402T**10N*		10							
KQT0402T**11N*		11		21	3900		0.195	480	
KQT0402T**12N*		12							
KQT0402T**13N*		13		24	3680		0.120	640	
KQT0402T**15N*		15							
KQT0402T**16N*		16		24	3600		0.180	560	
KQT0402T**18N*		18							
KQT0402T**19N*		19		25	3280		0.172	500	
KQT0402T**20N*		20							
KQT0402T**22N*		22		24	3100		0.200	480	
KQT0402T**23N*		23							
KQT0402T**24N*		24		25	3040		0.202	450	
KQT0402T**27N*		27							
KQT0402T**30N*		30		24	2800		0.323	400	
KQT0402T**33N*		33							
KQT0402T**34N*		34		25	2720		0.214		
KQT0402T**36N*		36							
KQT0402T**39N*		39		24	2700		0.322		
KQT0402T**40N*		40							
KQT0402T**43N*		43		25	2480		0.298		
KQT0402T**47N*		47							
KQT0402T**51N*		51		24	2400		0.354		
KQT0402T**56N*		56							
KQT0402T**68N*		68		25	2400		0.393		
KQT0402T**82N*		82							
KQT0402T**R10*		100		22	2320		0.550	340	
KQT0402T**R12*		120							

* Add tolerance character (B, C, G, H, J, K, M)

** Add packaging code

applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)
KQ0603TTE1N6*	C	1.6	250	J: ±5% K: ±10%	24	250	12500	0.03	700
KQ0603TTE1N8*	0	1.8			16			0.045	
KQ0603TTE3N3*	X	3.3			22		6900	0.055	
KQ0603TTE3N6*	E	3.6						0.063	
KQ0603TTE3N9*	1	3.9						0.08	
KQ0603TTE4N3*	F	4.3					5900	0.063	
KQ0603TTE4N7*	G	4.7			20		5800	0.116	
KQ0603TTE5N1*	Y	5.1						0.115	
KQ0603TTE6N8*	2	6.8			27		4800	0.11	
KQ0603TTE7N5*	H	7.5			0.106				
KQ0603TTE8N2*	A	8.2		28	4600		0.12		
KQ0603TTE8N7*	J	8.7			0.109				
KQ0603TTE9N5*	B	9.5		31	4800		0.125		
KQ0603TTE10N*	3	10					0.13		
KQ0603TTE11N*	K	11		33	4000		0.086		
KQ0603TTE12N*	4	12		35			0.13		
KQ0603TTE15N*	5	15		34	3300		0.17		
KQ0603TTE16N*	L	16					3300	0.104	
KQ0603TTE18N*	6	18		35	3100		0.17		
KQ0603TTE22N*	7	22		38	3000		0.19		
KQ0603TTE23N*	S	23		37	2700		0.15		
KQ0603TTE24N*	M	24			2650		0.135		
KQ0603TTE27N*	8	27	40	2800	0.22	600			
KQ0603TTE30N*	N	30	37	2250	0.144				
KQ0603TTE33N*	9	33	40	2300	0.22				
KQ0603TTE36N*	P	36	38	2080	0.25				
KQ0603TTE39N*	0	39	40	2200					
KQ0603TTE43N*	Q	43	39	2000	0.28				
KQ0603TTE47N*	1	47	200	38	200	1900	0.30		
KQ0603TTE51N*	T	51				0.31			
KQ0603TTE56N*	2	56				0.34			
KQ0603TTE68N*	3	68				1700	0.49		
KQ0603TTE72N*	4	72	0.54						
KQ0603TTE82N*	5	82	34	150	1400	0.58	400		
KQ0603TTER10*	6	100			1350	0.61			
KQ0603TTER11*	7	110	32		1300	0.65	300		
KQ0603TTER12*	8	120			1400	1.4	160		
KQ0603TTER15*	9	150		1300	2.2	140			
KQ0603TTER18*	0	180	100	25	100	1200	2.3	130	
KQ0603TTER20*	U	200					2.5	120	
KQ0603TTER21*	V	210				1000	2.4		
KQ0603TTER22*	1	220					900	2.3	170
KQ0603TTER25*	W	250		24		840	3.17	110	
KQ0603TTER27*	2	270				30	800	3.0	100
KQ0603TTER30*	X	300		50			700	3.7	80
KQ0603TTER33*	3	330					640	1.21	190
KQ0603TTER39*	4	390					610	1.26	170
KQ0603TTER47*	5	470				560	2.09	130	
KQ0603TTER51*	V	510	50	J: ±5% K: ±10%	30	50	590	1.89	150
KQ0603TTER56*	6	560							
KQ0603TTER62*	W	620							

* Add tolerance character (B, C, G, H, J, K, M)

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applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)	
KQ0603TTER68*	7	680	50	J: ±5% K: ±10%	30	50	540	1.97	140	
KQ0603TTER72*	C	720					530	2.04	130	
KQ0603TTER75*	X	750					490	3.09	110	
KQ0603TTER82*	8	820					480	2.95	120	
KQ0603TTER91*	Y	910					440	5.13	90	
KQ0603TTE1R0*	9	1000					400	5.45	80	
KQ0603TTE1R2*	0	1200								
KQ0805TTE3N3*	0	3.3	250	J: ±5% K: ±10%	50	1500	6000	0.08	600	
KQ0805TTE6N8*	1	6.8				1000	5500	0.11		
KQ0805TTE8N2*	2	8.2					4700	0.12		
KQ0805TTE12N*	3	12					4000	0.15		
KQ0805TTE15N*	4	15					3400	0.17		
KQ0805TTE18N*	5	18					3300	0.20		
KQ0805TTE20N*	Y	20								
KQ0805TTE22N*	6	22	200	G: ±2% J: ±5% K: ±10%	55		2600	0.22	500	
KQ0805TTE27N*	7	27					2500	0.25		
KQ0805TTE33N*	8	33					2050	0.27		
KQ0805TTE39N*	9	39					2000	0.29		
KQ0805TTE43N*	4	43					1650	0.34		
KQ0805TTE47N*	0	47			60		1550	0.31		
KQ0805TTE56N*	1	56					1450	0.38		
KQ0805TTE68N*	2	68	150				1300	0.42	400	
KQ0805TTE82N*	3	82			65		1200	0.46		
KQ0805TTER10*	4	100					1100	0.51		
KQ0805TTER12*	5	120					920	0.56		
KQ0805TTER15*	6	150								
KQ0805TTER16*	H	160								
KQ0805TTER17*	J	170								
KQ0805TTER18*	7	180	100		50		870	0.64	350	
KQ0805TTER19*	D	190								
KQ0805TTER20*	E	200								
KQ0805TTER21*	F	210								
KQ0805TTER22*	8	220								
KQ0805TTER23*	K	230								
KQ0805TTER24*	L	240								
KQ0805TTER25*	G	250								
KQ0805TTER27*	9	270			48					
KQ0805TTER33*	0	330					600	1.4		
KQ0805TTER39*	1	390	50	J: ±5% K: ±10%			560	1.5	290	
KQ0805TTER47*	2	470			33	100	375	1.76		
KQ0805TTER56*	3	560					340	1.9		
KQ0805TTER68*	4	680					188	2.2		
KQ0805TTER72*	A	720			23	50	200	2.3		
KQ0805TTER82*	5	820					215	2.35		
KQ1008TTE10N*	10N	10	50	J: ±5% K: ±10% M: ±20%	50	500	4100	0.08	1000	
KQ1008TTE12N*	12N	12					3300	0.09		
KQ1008TTE15N*	15N	15					3000	0.10		
KQ1008TTE18N*	18N	18					2500	0.11		
KQ1008TTE22N*	22N	22					2400	0.12		
KQ1008TTE27N*	27N	27			55	350	1600	0.13		
KQ1008TTE33N*	33N	33			60		1600	0.14		

* Add tolerance character (C, G, H, J, K, M)

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applications and ratings (continued)

Part Designation	Marking	Nominal Inductance (nH)	L Measuring Frequency (MHz)	Inductance Tolerance	Q Quality Factor Minimum	Q Measuring Frequency (MHz)	Self Resonant Frequency Minimum (MHz)	DC Resistance Maximum (Ω)	Allowable DC Current Maximum (mA)			
KQ1008TTE39N*	39N	39	50	J: ±5%,K:±10% M:±20%	60	350	1500	0.15	1000			
KQ1008TTE47N*	47N	47						0.16				
KQ1008TTE56N*	56N	56						0.18				
KQ1008TTE68N*	68N	68					0.20					
KQ1008TTE82N*	82N	82					0.22					
KQ1008TTER10*	R10	100	25	G: ±2% J: ±5% K: ±10%	60	100	1000	0.56	650			
KQ1008TTER12*	R12	120					950	0.63				
KQ1008TTER15*	R15	150					850	0.70		580		
KQ1008TTER18*	R18	180					750	0.77	620			
KQ1008TTER22*	R22	220					700	0.84	500			
KQ1008TTER27*	R27	270					600	0.91	500			
KQ1008TTER33*	R33	330					570	1.05	450			
KQ1008TTER39*	R39	390			45		50	500	1.12	470		
KQ1008TTER47*	R47	470							450		1.19	
KQ1008TTER56*	R56	560							415		1.33	400
KQ1008TTER62*	R62	620								1.40	300	
KQ1008TTER68*	R68	680							375	1.47	400	
KQ1008TTER75*	R75	750							360	1.54	360	
KQ1008TTER82*	R82	820							350	1.61	400	
KQ1008TTER91*	R91	910							320	1.68	380	
KQ1008TTE1R0*	1R0	1000						35	50	290	1.75	370
KQ1008TTE1R2*	1R2	1200									250	1.6
KQ1008TTE1R5*	1R5	1500			28		50	200	1.7	300		
KQ1008TTE1R8*	1R8	1800							160	1.9	270	
KQ1008TTE2R2*	2R2	2200			7.9			22	25	140	2.2	250
KQ1008TTE2R7*	2R7	2700		110		2.3						
KQ1008TTE3R3*	3R3	3300	20	25				100	2.7	230		
KQ1008TTE3R9*	3R9	3900						90	2.8			
KQ1008TTE4R7*	4R7	4700	15	7.9				80	3.1	210		
KQ1008TTE5R6*	5R6	5600						70	2.5	240		
KQ1008TTE6R8*	6R8	6800						65	2.8	200		
KQ1008TTE8R2*	8R2	8200						60	3.0	170		
KQ1008TTE100*	100	10000							3.4	150		

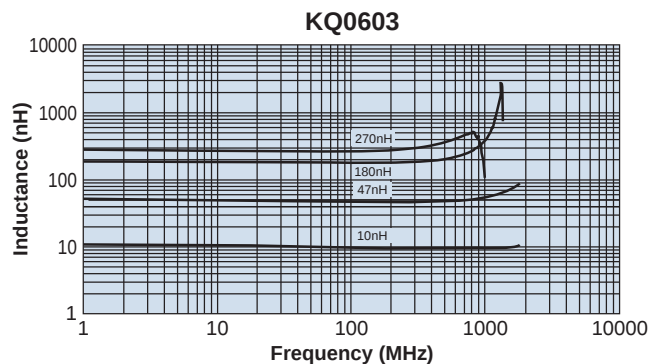
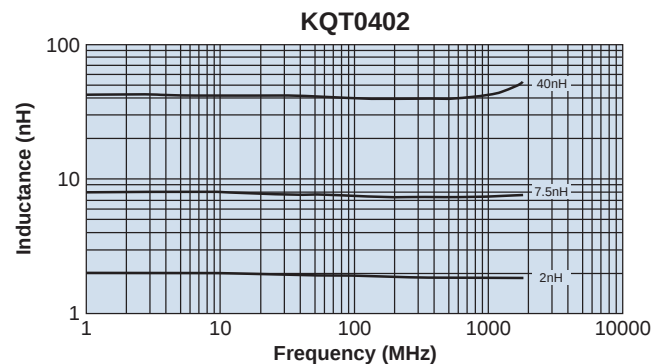
* Add tolerance character (C, G, H, J, K, M)

Operating Temperature Range: -40°C ~ +125°C

The operating temperature range of the coil (ambient temperature + self heating) must remain at +125°C or less

environmental applications

L-Frequency Characteristics

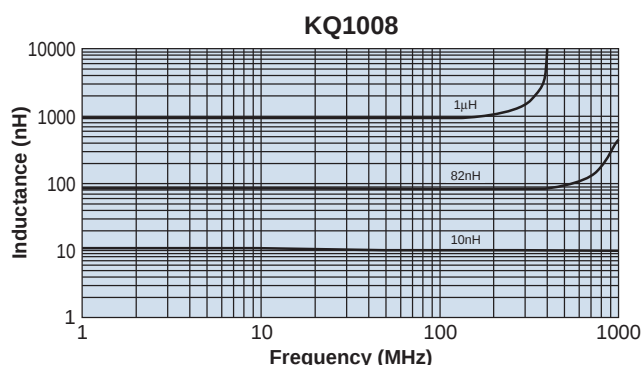
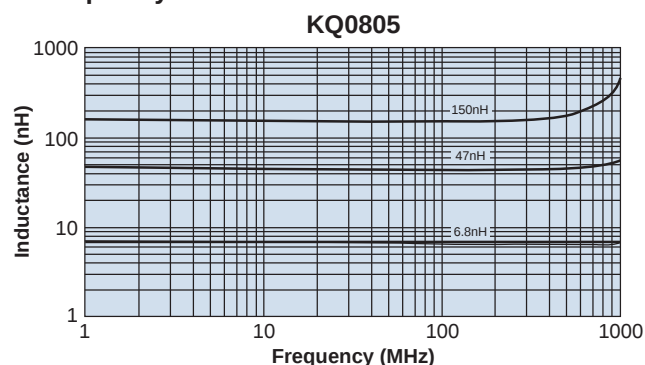


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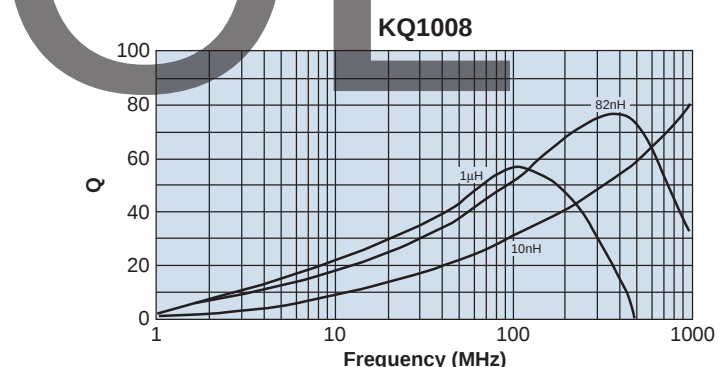
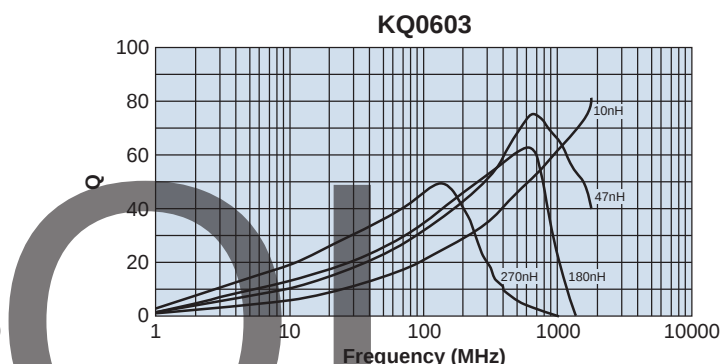
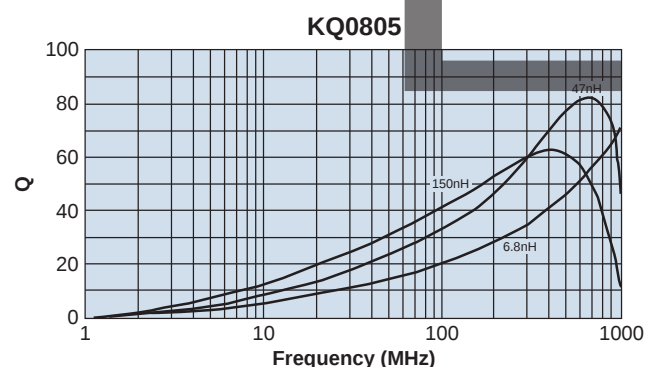
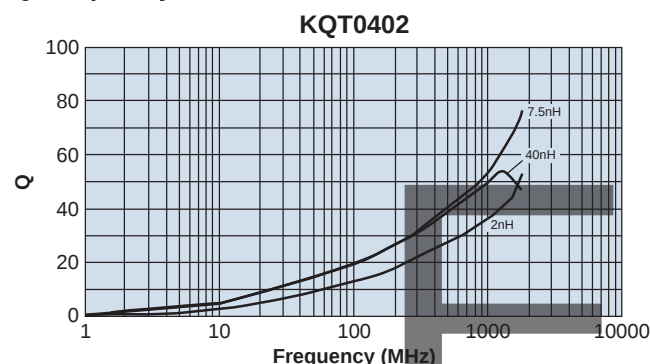
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environmental applications (continued)

L-Frequency Characteristics



Q-Frequency Characteristics



Test equipment: HP4291A impedance analyzer

Performance Characteristics

Parameter	Requirements Maximum Limit	Δ L/L Δ Q/Q Typical	Test Method
Resistance to Soldering Heat	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±2.7% Δ Q/Q: ±6.6%	260°C ± 5°C, 10s ± 1s
Rapid Change of Temperature	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±2.1% Δ Q/Q: ±5.3%	-40°C (30min.)/ +125°C (30min.) 100 cycles
Low Temperature Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±1.8% Δ Q/Q: ±2.8%	-40°C ± 2°C, 1000h
High Temperature Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±1.8% Δ Q/Q: ±5.3%	125°C ± 2°C, 1000h
Moisture Exposure	No significant abnormality in appearance Δ L/L: ±5%, Δ Q/Q: ±10%	Δ L/L: ±0.9% Δ Q/Q: ±6.9%	40°C ± 2°C, 90%~95%RH, 1000h
Resistance to Solvent	No damage and marking shall remain legible	—	Accordance with MIL-STD 202F Method 215

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[KQT0402TTD3N6J](#) [KQ1008TTE27NJ](#) [KQT0402TTD3N9J](#) [KQ1008TTER47G](#) [KQT0402TTD3N3J](#) [KQ1008TTER82G](#)
[KQ1008TTER68G](#) [KQ0603TTE7N5G](#) [KQ1008TTER62G](#) [KQ0603TTE72NG](#) [KQT0402TTD2N2J](#) [KQ1008TTER22G](#)
[KQ0603TTE68NG](#) [KQ1008TTER27G](#) [KQ1008TTE2R2G](#) [KQ1008TTER15G](#) [KQ1008TTE22NJ](#) [KQ1008TTER12G](#)
[KQ1008TTER18G](#) [KQ1008TTER10G](#) [KQ1008TTE2R7G](#) [KQ1008TTE10NJ](#) [KQ1008TTE100G](#) [KQ1008TTER91G](#)
[KQ1008TTE18NJ](#) [KQ1008TTER56G](#) [KQT0402TTD27NJ](#) [KQ1008TTER33G](#) [KQ1008TTER39G](#) [KQ1008TTE1R2G](#)
[KQ1008TTE1R8G](#) [KQ1008TTE1R0G](#) [KQ1008TTE1R5G](#) [KQ1008TTE12NJ](#) [KQ1008TTER75G](#) [KQT0402TTD23NJ](#)
[KQ1008TTE6R8G](#) [KQ0603TTE30NG](#) [KQ0805TTE56NG](#) [KQ0603TTE10NG](#) [KQ0603TTER15G](#) [KQ0603TTER11G](#)
[KQ0603TTER10G](#) [KQ0603TTER18G](#) [KQ0603TTER12G](#) [KQ0603TTE22NG](#) [KQ0603TTE18NJ](#) [KQ0603TTE18NG](#)
[KQ1008TTE82NG](#) [KQ1008TTE8R2G](#) [KQ0603TTE24NG](#) [KQ0603TTE36NG](#) [KQ0603TTE12NG](#) [KQ0603TTE12NJ](#)
[KQ0603TTE3N6J](#) [KQ1008TTE68NG](#) [KQ0603TTE3N9J](#) [KQ0603TTE1N8J](#) [KQ0603TTE1N6J](#) [KQ0603TTER33G](#)
[KQ0603TTER39G](#) [KQ0603TTE16NG](#) [KQ0603TTE33NG](#) [KQ0603TTE82NG](#) [KQ0603TTER27G](#) [KQ0603TTER22G](#)
[KQT0402TTD8N2J](#) [KQ0603TTE8N7G](#) [KQ0603TTE39NG](#) [KQT0402TTD9N0J](#) [KQ0805TTE47NJ](#) [KQ0805TTER82G](#)
[KQ0603TTE27NG](#) [KQ1008TTE47NJ](#) [KQT0402TTD5N6J](#) [KQ0603TTE15NJ](#) [KQ0603TTE15NG](#) [KQT0402TTD40NJ](#)
[KQ0603TTE11NG](#) [KQ0805TTE15NJ](#) [KQ0805TTER47G](#) [KQ0805TTE27NJ](#) [KQ0805TTE39NJ](#) [KQ1008TTE39NJ](#)
[KQT0402TTD7N5J](#) [KQ0603LTE3N3J](#) [KQ0805TTE2N8J](#) [KQ0603TTE82NJ](#) [KQ0603TTER15J](#) [KQ0603TTER18J](#)
[KQ0805TTE82NJ](#) [KQ0805TTER56J](#) [KQT0402TTD2N0C](#) [KQ0805TTER22K](#)