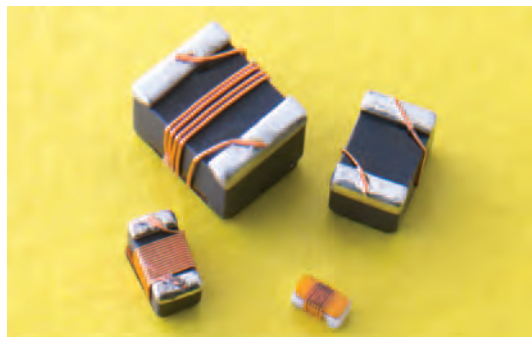


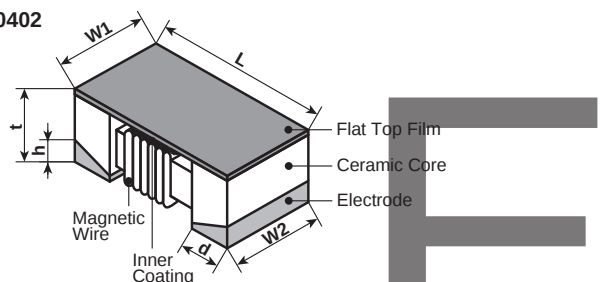


features

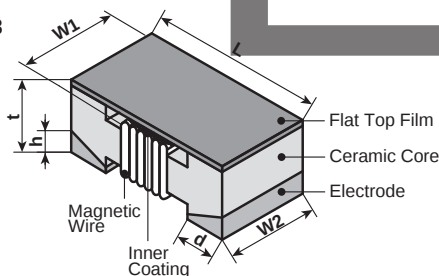
- Surface mount
- Operating temperature: -40°C ~ +125°C
- Flat top suitable for high speed pick-and-place components
- Excellent high frequency applications
- High Q factors and self-resonant frequency values
- Products with lead-free terminations meet EU RoHS requirements
- AEC-Q200 Tested

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					7200	0.120	700
KQT0402T**2N4*		2.4			6000			0.091	840
KQT0402T**2N7*		2.7					5800		
KQT0402T**3N3*		3.3		4800	0.086			760	
KQT0402T**3N6*		3.6					5800		0.104
KQT0402T**3N9*		3.9		4400	0.150			650	
KQT0402T**4N3*		4.3					4200		0.104
KQT0402T**4N7*		4.7		4160	0.150			650	
KQT0402T**5N1*		5.1					4000		0.195
KQT0402T**5N6*		5.6		3900	0.120			640	
KQT0402T**6N2*		6.2					3680		0.180
KQT0402T**6N8*		6.8		3600	0.172			500	
KQT0402T**7N5*		7.5					3100		0.200
KQT0402T**8N2*		8.2		3040	0.250			450	
KQT0402T**8N7*		8.7					2800		0.323
KQT0402T**9N0*		9.0		2720	0.214				
KQT0402T**9N5*		9.5					2700	0.322	
KQT0402T**10N*		10		2480	0.298				
KQT0402T**11N*		11					2400	0.354	
KQT0402T**12N*		12		2400	0.393				
KQT0402T**13N*		13					2320	0.550	
KQT0402T**15N*		15		2300	0.560				
KQT0402T**16N*		16					2300	0.550	
KQT0402T**18N*		18		2240	0.620				
KQT0402T**19N*		19					2200	0.810	
KQT0402T**20N*		20		2100	0.830				
KQT0402T**22N*		22					2100	0.835	
KQT0402T**23N*		23		2800	1.170				
KQT0402T**24N*		24					2000	1.120	
KQT0402T**27N*		27		1800	1.810				
KQT0402T**30N*		30					1600	2.090	
KQT0402T**33N*		33		1500	2.320				
KQT0402T**34N*		34					1500	2.320	
KQT0402T**36N*		36		1500	2.320				
KQT0402T**39N*		39					1500	2.320	
KQT0402T**40N*		40		1500	2.320				
KQT0402T**43N*		43					1500	2.320	
KQT0402T**47N*		47		1500	2.320				
KQT0402T**51N*		51					1500	2.320	
KQT0402T**56N*		56		1500	2.320				
KQT0402T**68N*		68					1500	2.320	
KQT0402T**82N*		82		1500	2.320				
KQT0402T**R10*		100					1500	2.320	
KQT0402T**R12*		120		1500	2.320				

* 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	
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				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				
KQ0603TTE30N*	N	30	37	2250	0.144				
KQ0603TTE33N*	9	33	40	2300	0.22				
KQ0603TTE36N*	P	36	G: ±2% J: ±5% K: ±10%	38	2080	0.25			
KQ0603TTE39N*	0	39		40	2200				
KQ0603TTE43N*	Q	43		39	2000	0.28			
KQ0603TTE47N*	1	47		200	38	200	0.30		
KQ0603TTE51N*	T	51					1900	0.31	
KQ0603TTE56N*	2	56				37	1700	0.34	
KQ0603TTE68N*	3	68						0.49	
KQ0603TTE72N*	4	72		34	150	400	0.54		
KQ0603TTE82N*	5	82					1400	0.58	
KQ0603TTER10*	6	100		32		150	300	0.61	
KQ0603TTER11*	7	110	1300					0.65	
KQ0603TTER12*	8	120	1400		1.4				
KQ0603TTER15*	9	150	1300		2.2				
KQ0603TTER18*	0	180	100	25	100	1200	2.3	140	
KQ0603TTER20*	U	200					2.5	130	
KQ0603TTER21*	V	210				1000			2.4
KQ0603TTER22*	1	220				900	2.3		
KQ0603TTER25*	W	250		24	100	840	3.17	120	
KQ0603TTER27*	2	270					800	2.09	
KQ0603TTER30*	X	300		30		50	700	3.7	170
KQ0603TTER33*	3	330						610	1.21
KQ0603TTER39*	4	390		50	50		560	1.26	190
KQ0603TTER47*	5	470						590	2.09
KQ0603TTER51*	V	510	50	50		560	1.89	170	
KQ0603TTER56*	6	560					590	2.09	
KQ0603TTER62*	W	620	50		50	560	1.89	150	
							50	50	560
			50	50		560			
							50		50

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

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

7/25/24

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	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	G: ±2% J: ±5% K: ±10%			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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7/25/24

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			65		1300	0.18			
KQ1008TTE68N*	68N	68						0.20			
KQ1008TTE82N*	82N	82			60		1000	0.22			
KQ1008TTER10*	R10	100		0.56		650					
KQ1008TTER12*	R12	120	25	G: ±2% J: ±5% K: ±10%	45		100	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				500		1.12	470		
KQ1008TTER47*	R47	470				450		1.19			
KQ1008TTER56*	R56	560				415		1.33	400		
KQ1008TTER62*	R62	620				375		1.40	300		
KQ1008TTER68*	R68	680						1.47	400		
KQ1008TTER75*	R75	750				360		1.54	360		
KQ1008TTER82*	R82	820				350		1.61	400		
KQ1008TTER91*	R91	910				35		50	320	1.68	380
KQ1008TTE1R0*	1R0	1000							290	1.75	370
KQ1008TTE1R2*	1R2	1200	250	1.6	310						
KQ1008TTE1R5*	1R5	1500	200	1.7	300						
KQ1008TTE1R8*	1R8	1800	28	160	1.9		270				
KQ1008TTE2R2*	2R2	2200		2.2	250						
KQ1008TTE2R7*	2R7	2700	22	25		140	2.3				
KQ1008TTE3R3*	3R3	3300	20		110	2.7	230				
KQ1008TTE3R9*	3R9	3900			100	2.8					
KQ1008TTE4R7*	4R7	4700		15	7.9	90	3.1	210			
KQ1008TTE5R6*	5R6	5600	80			2.5	240				
KQ1008TTE6R8*	6R8	6800	70			2.8	200				
KQ1008TTE8R2*	8R2	8200	65			3.0	170				
KQ1008TTE100*	100	10000	60			3.4	150				

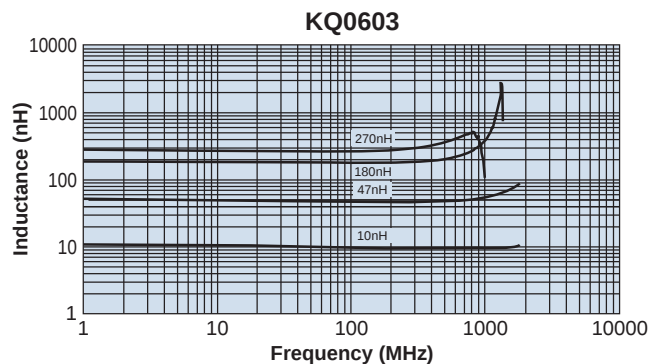
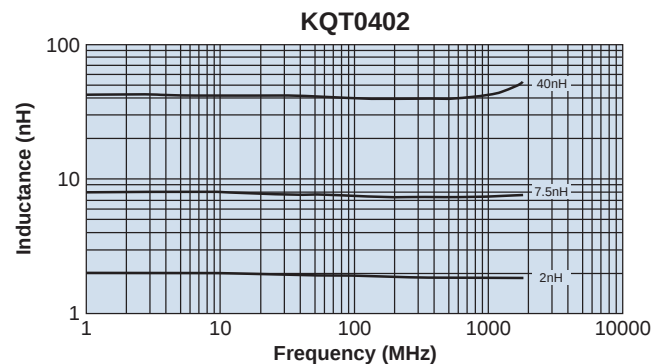
* Add tolerance character (C, G, H, J, K, M)

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

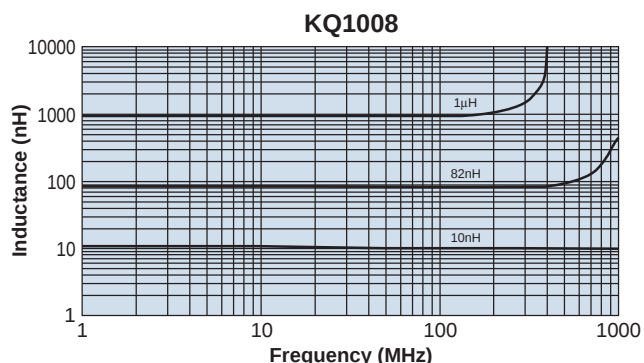
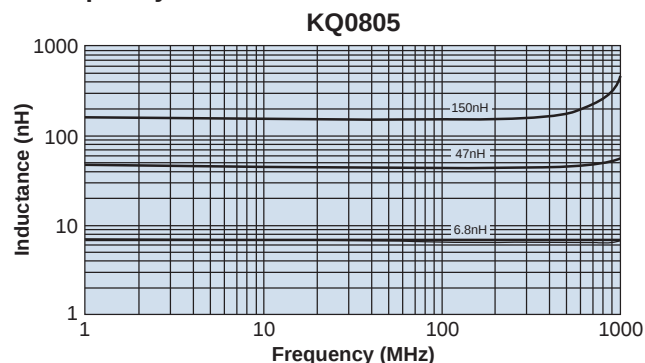


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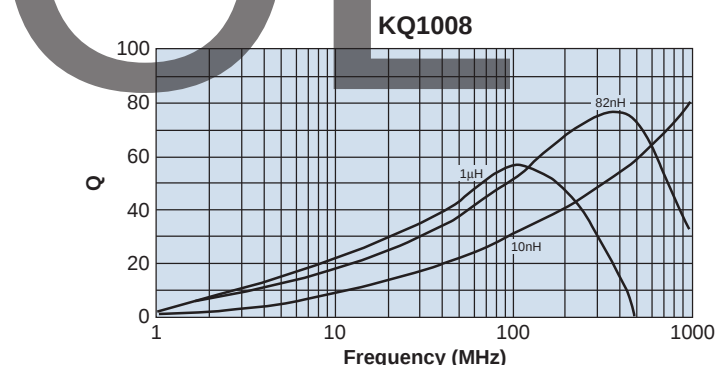
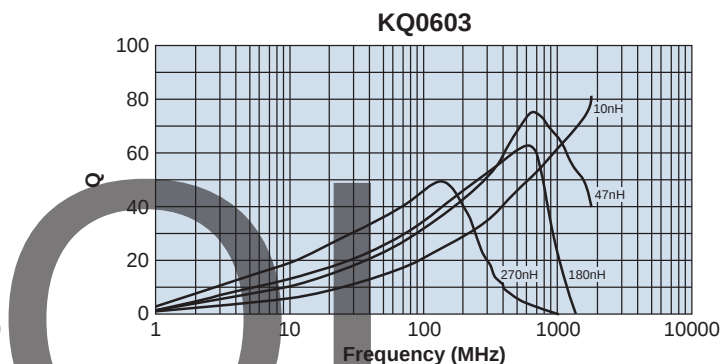
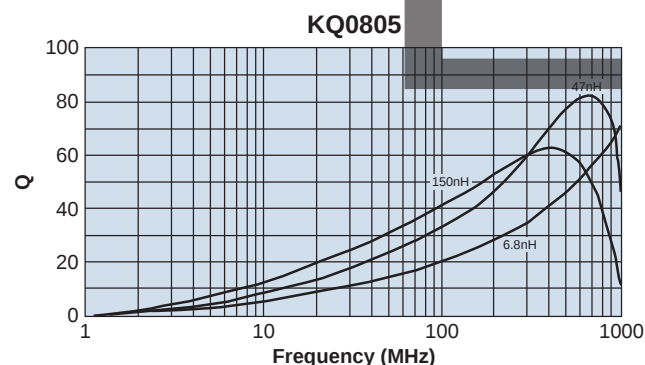
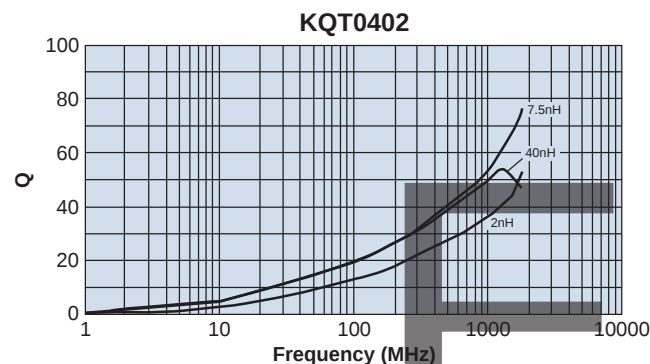
7/25/24

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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7/25/24

Mouser Electronics

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[KQT0402TTD3N6J](#) [KQ1008TTE27NJ](#) [KQT0402TTD3N9J](#) [KQ1008TTER47G](#) [KQT0402TTD3N3J](#) [KQ1008TTER82G](#)
[KQ1008TTER68G](#) [KQ0603TTE7N5G](#) [KQ1008TTER62G](#) [KQ0603TTE72NG](#) [KQT0402TTD2N2J](#) [KQ1008TTER22G](#)
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[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](#)