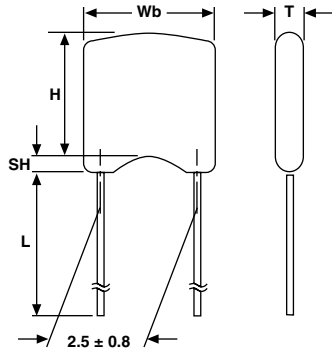
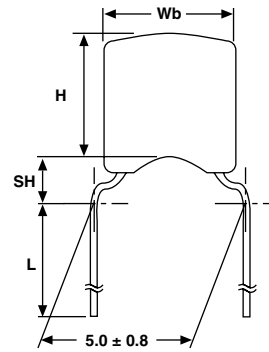


Multilayer Ceramic Dipped Radial K10 Capacitors

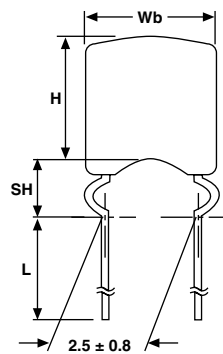
DIMENSIONS

L2

Component outline for lead spacing 2.5 mm ± 0.8 mm (straight leads)

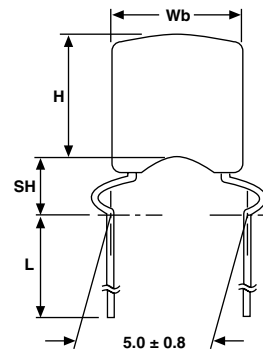

H5

Component outline for lead spacing 5.0 mm ± 0.8 mm (flat bent leads)

L2 and H5 are preferred styles


K2

Component outline for lead spacing 2.5 mm ± 0.8 mm (outside kink)


K5

Component outline for lead spacing 5.0 mm ± 0.8 mm (outside kink)



RoHS
COMPLIANT

CAPACITOR DIMENSIONS AND WEIGHT in millimeter (inches)								
SIZE	W _b _{max.}	H _{max.}	T _{max.}	MAX. SEATING HEIGHT (SH)				WEIGHT (g)
				L2	H5	K2	K5	
10	3.6 (0.142)	3.6 (0.142)	2.3 (0.090)	1.58 (0.062)	2.54 (0.100)	3.50 (0.140)	3.50 (0.140)	≈ 0.10

Note

- Bulk packed types have a standard lead length L = 25.4 mm (1.0") minimum
- Thickness is defined as "T"



QUICK REFERENCE DATA					
DESCRIPTION	VALUE				
Capacitance range	10 pF to 1000 pF		100 pF to 0.1 μF		0.01 μF to 0.15 μF
Rated DC voltage	50 V	100 V	50 V	100 V	50 V
Tolerance on capacitance	± 5 %, ± 10 %		± 10 %, ± 20 %		+ 80 %/- 20 %
Dielectric Code	C0G (NP0)		X7R		Y5V

ORDERING INFORMATION									
K	103	K	10	X7R	F	5	3	H	5
PRODUCT TYPE	CAPACITANCE CODE	CAPACITANCE TOLERANCE	SIZE CODE	TEMP. CHAR.	RATED VOLTAGE	LEAD DIA.	LEAD LENGTH/ PACKAGING	LEAD STYLE	LEAD SPACING
K = Mono-Kap	Two significant digits followed by the number of zeros. For example: 103 = 10 000 pF	J = ± 5 % K = ± 10 % M = ± 20 % Z = + 80%/- 20 %	Ref. mech. spec.	C0G X7R Y5V	F = 50 V _{DC} H = 100 V _{DC}	5 = 0.5 mm (0.020")	3 = Bulk, with lead length of 30 ± 5.0 mm (1.25") T = Tape and reel U = Ammopack	L = Straight Lead H = High seated assy	2 = 2.5 (0.100") 5 = 5.0 (0.200")
Ordering Example: K-103-K-10-X7R-F-5-3-H-5									



CAPACITANCE RANGE CHART

COG (NPO) DIELECTRIC			
SIZE		10	
RATED VOLTAGE		50	100
VALUE	CODE		
10 pF	100	•	•
12 pF	120	•	•
15 pF	150	•	•
18 pF	180	•	•
22 pF	220	•	•
27 pF	270	•	•
33 pF	330	•	•
39 pF	390	•	•
47 pF	470	•	•
56 pF	560	•	•
68 pF	680	•	•
82 pF	820	•	•
100 pF	101	•	•
120 pF	121	•	•
150 pF	151	•	•
180 pF	181	•	•
220 pF	221	•	•
270 pF	271	•	•
330 pF	331	•	•
390 pF	391	•	•
470 pF	471	•	•
560 pF	561	•	•
680 pF	681	•	•
820 pF	821	•	•
1000 pF	102	•	
1200 pF	122		
1500 pF	152		
1800 pF	182		
2200 pF	222		
2700 pF	272		
3300 pF	332		
3900 pF	392		
4700 pF	472		
5600 pF	562		
6800 pF	682		
8200 pF	822		
0.01 μF	103		

X7R DIELECTRIC			
SIZE		10	
RATED VOLTAGE		50	100
VALUE	CODE		
100 pF	101	•	•
120 pF	121	•	•
150 pF	151	•	•
180 pF	181	•	•
220 pF	221	•	•
270 pF	271	•	•
330 pF	331	•	•
390 pF	391	•	•
470 pF	471	•	•
560 pF	561	•	•
680 pF	681	•	•
820 pF	821	•	•
1000 pF	102	•	•
1200 pF	122	•	•
1500 pF	152	•	•
1800 pF	182	•	•
2200 pF	222	•	•
2700 pF	272	•	•
3300 pF	332	•	•
3900 pF	392	•	•
4700 pF	472	•	•
5600 pF	562	•	•
6800 pF	682	•	•
8200 pF	822	•	•
0.01 μF	103	•	•
0.012 μF	123	•	
0.015 μF	153	•	
0.018 μF	183	•	
0.022 μF	223	•	
0.027 μF	273	•	
0.033 μF	333	•	
0.039 μF	393	•	
0.047 μF	473	•	
0.056 μF	563	•	
0.068 μF	683	•	
0.082 μF	823	•	
0.10 μF	104	•	
0.12 μF	124		
0.15 μF	154		
0.22 μF	224		
0.33 μF	334		
0.47 μF	474		
0.68 μF	684		
1.0 μF	105		

Y5V DIELECTRIC			
SIZE		10	
RATED VOLTAGE		50	
VALUE	CODE		
0.01 μF	103	•	
0.015 μF	153	•	
0.022 μF	223	•	
0.033 μF	333	•	
0.047 μF	473	•	
0.068 μF	683	•	
0.10 μF	104	•	
0.15 μF	154	•	
0.22 μF	224		
0.33 μF	334		
0.47 μF	474		
0.68 μF	684		
1.0 μF	105		



PART NUMBER LISTING - if not in range chart, please contact cml@vishay.com

MONO-KAP Y5V - 50 V_{DC} CLEAR TEXT CODE			
CAPACITANCE (pF)	RATED VOLTAGE (V _{DC})	+ 80 %/- 20 % TOLERANCE 13 th digit (T = Reel, U = Ammo, 3 = Bulk)	LEAD SPACING mm (inch)
10 000	50	K103Z10Y5VF5.L2	2.5 mm (0.10)
15 000		K153Z10Y5VF5.H5	5.0 mm (0.20)
15 000		K153Z10Y5VF5.L2	2.5 mm (0.10)
22 000		K223Z10Y5VF5.H5	5.0 mm (0.20)
22 000		K223Z10Y5VF5.L2	2.5 mm (0.10)
33 000		K333Z10Y5VF5.H5	5.0 mm (0.20)
33 000		K333Z10Y5VF5.L2	2.5 mm (0.10)
47 000		K473Z10Y5VF5.H5	5.0 mm (0.20)
47 000		K473Z10Y5VF5.L2	2.5 mm (0.10)
68 000		K683Z10Y5VF5.H5	5.0 mm (0.20)
68 000		K683Z10Y5VF5.L2	2.5 mm (0.10)
100 000		K104Z10Y5VF5.H5	5.0 mm (0.20)
100 000		K104Z10Y5VF5.L2	2.5 mm (0.10)
150 000		K154Z10Y5VF5.H5	5.0 mm (0.20)
150 000		K154Z10Y5VF5.L2	2.5 mm (0.10)

MONO-KAP X7R - 50 V_{DC} CLEAR TEXT CODE			
CAPACITANCE (pF)	RATED VOLTAGE (V _{DC})	10 % TOLERANCE 13 th digit ⁽¹⁾ (T = Reel, U = Ammo, 3 = Bulk)	LEAD SPACING mm (inch)
100	50	K101K10X7RF5.L2	2.5 mm (0.20)
100		K101K10X7RF5.H5	5.0 mm (0.20)
120		K121K10X7RF5.L2	2.5 mm (0.10)
120		K121K10X7RF5.H5	5.0 mm (0.20)
150		K151K10X7RF5.L2	2.5 mm (0.10)
150		K151K10X7RF5.H5	5.0 mm (0.20)
180		K181K10X7RF5.L2	2.5 mm (0.10)
180		K181K10X7RF5.H5	5.0 mm (0.20)
220		K221K10X7RF5.L2	2.5 mm (0.10)
220		K221K10X7RF5.H5	5.0 mm (0.20)
270		K271K10X7RF5.L2	2.5 mm (0.10)
270		K271K10X7RF5.H5	5.0 mm (0.20)
330		K331K10X7RF5.L2	2.5 mm (0.10)
330		K331K10X7RF5.H5	5.0 mm (0.20)
390		K391K10X7RF5.L2	2.5 mm (0.10)
390		K391K10X7RF5.H5	5.0 mm (0.20)
470		K471K10X7RF5.L2	2.5 mm (0.10)
470		K471K10X7RF5.H5	5.0 mm (0.20)
560		K561K10X7RF5.L2	2.5 mm (0.10)
560		K561K10X7RF5.H5	5.0 mm (0.20)
680		K681K10X7RF5.L2	2.5 mm (0.10)
680		K681K10X7RF5.H5	5.0 mm (0.20)
820		K821K10X7RF5.L2	2.5 mm (0.10)
820		K821K10X7RF5.H5	5.0 mm (0.20)
1000		K102K10X7RF5.L2	2.5 mm (0.10)
1000		K102K10X7RF5.H5	5.0 mm (0.20)
1200		K122K10X7RF5.L2	2.5 mm (0.10)
1200		K122K10X7RF5.H5	5.0 mm (0.20)
1500		K152K10X7RF5.L2	2.5 mm (0.10)
1500		K152K10X7RF5.H5	5.0 mm (0.20)



MONO-KAP X7R - 50 V_{DC} CLEAR TEXT CODE			
CAPACITANCE (pF)	RATED VOLTAGE (V_{DC})	10 % TOLERANCE 13th digit ⁽¹⁾ (T = Reel, U = Ammo, 3 = Bulk)	LEAD SPACING mm (inch)
1800	50	K182K10X7RF5.L2	2.5 mm (0.10)
1800		K182K10X7RF5.H5	5.0 mm (0.20)
2200		K222K10X7RF5.L2	2.5 mm (0.10)
2200		K222K10X7RF5.H5	5.0 mm (0.20)
2700		K272K10X7RF5.L2	2.5 mm (0.10)
2700		K272K10X7RF5.H5	5.0 mm (0.20)
3300		K332K10X7RF5.L2	2.5 mm (0.10)
3300		K332K10X7RF5.H5	5.0 mm (0.20)
3900		K392K10X7RF5.L2	2.5 mm (0.10)
3900		K392K10X7RF5.H5	5.0 mm (0.20)
4700		K472K10X7RF5.L2	2.5 mm (0.10)
4700		K472K10X7RF5.H5	5.0 mm (0.20)
5600		K562K10X7RF5.L2	2.5 mm (0.10)
5600		K562K10X7RF5.H5	5.0 mm (0.20)
6800		K682K10X7RF5.L2	2.5 mm (0.10)
6800		K682K10X7RF5.H5	5.0 mm (0.20)
8200		K822K10X7RF5.L2	2.5 mm (0.10)
8200		K822K10X7RF5.H5	5.0 mm (0.20)
10 000		K103K10X7RF5.L2	2.5 mm (0.10)
10 000		K103K10X7RF5.H5	5.0 mm (0.20)
12 000		K123K10X7RF5.L2	2.5 mm (0.10)
12 000		K123K10X7RF5.H5	5.0 mm (0.20)
15 000		K153K10X7RF5.L2	2.5 mm (0.10)
15 000		K153K10X7RF5.H5	5.0 mm (0.20)
18 000		K183K10X7RF5.L2	2.5 mm (0.10)
18 000		K183K10X7RF5.H5	5.0 mm (0.20)
22 000		K223K10X7RF5.L2	2.5 mm (0.10)
22 000		K223K10X7RF5.H5	5.0 mm (0.20)
27 000		K273K10X7RF5.L2	2.5 mm (0.10)
27 000		K273K10X7RF5.H5	5.0 mm (0.20)
33 000		K333K10X7RF5.L2	2.5 mm (0.10)
33 000		K333K10X7RF5.H5	5.0 mm (0.20)
39 000		K393K10X7RF5.L2	2.5 mm (0.10)
39 000		K393K10X7RF5.H5	5.0 mm (0.20)
39 000		K393K10X7RF5.L2	2.5 mm (0.10)
39 000		K393K10X7RF5.H5	5.0 mm (0.20)
47 000		K473K10X7RF5.L2	2.5 mm (0.10)
47 000		K473K10X7RF5.H5	5.0 mm (0.20)
47 000		K473K10X7RF5.L2	2.5 mm (0.10)
47 000		K473K10X7RF5.H5	5.0 mm (0.20)
56 000	K563K10X7RF5.L2	2.5 mm (0.10)	
56 000	K563K10X7RF5.H5	5.0 mm (0.20)	
56 000	K563K10X7RF5.L2	2.5 mm (0.10)	
56 000	K563K10X7RF5.H5	5.0 mm (0.20)	
68 000	K683K10X7RF5.L2	2.5 mm (0.10)	
68 000	K683K10X7RF5.H5	5.0 mm (0.20)	
82 000	K823K10X7RF5.L2	2.5 mm (0.10)	
82 000	K823K10X7RF5.H5	5.0 mm (0.20)	
100 000	K104K10X7RF5.L2	2.5 mm (0.10)	
100 000	K104K10X7RF5.H5	5.0 mm (0.20)	

Note

(1) 20 % tolerance available



MONO-KAP C0G - 50 V_{DC} CLEAR TEXT CODE			
CAPACITANCE (pF)	RATED VOLTAGE (V_{DC})	5 % TOLERANCE 13th digit (T = Reel, U = Ammo, 3 = Bulk)	LEAD SPACING mm (inch)
10	50	K100J10C0GF5.L2	2.5 mm (0.10)
10		K100J10C0GF5.H5	5.0 mm (0.20)
12		K120J10C0GF5.L2	2.5 mm (0.10)
12		K120J10C0GF5.H5	5.0 mm (0.20)
15		K150J10C0GF5.L2	2.5 mm (0.10)
15		K150J10C0GF5.H5	5.0 mm (0.20)
18		K180J10C0GF5.L2	2.5 mm (0.10)
18		K180J10C0GF5.H5	5.0 mm (0.20)
22		K220J10C0GF5.L2	2.5 mm (0.10)
22		K220J10C0GF5.H5	5.0 mm (0.20)
27		K270J10C0GF5.L2	2.5 mm (0.10)
27		K270J10C0GF5.H5	5.0 mm (0.20)
33		K330J10C0GF5.L2	2.5 mm (0.10)
33		K330J10C0GF5.H5	5.0 mm (0.20)
39		K390J10C0GF5.L2	2.5 mm (0.10)
39		K390J10C0GF5.H5	5.0 mm (0.20)
47		K470J10C0GF5.L2	2.5 mm (0.10)
47		K470J10C0GF5.H5	5.0 mm (0.20)
56		K560J10C0GF5.L2	2.5 mm (0.10)
56		K560J10C0GF5.H5	5.0 mm (0.20)
68		K680J10C0GF5.L2	2.5 mm (0.10)
68		K680J10C0GF5.H5	5.0 mm (0.20)
82		K820J10C0GF5.L2	2.5 mm (0.10)
82		K820J10C0GF5.H5	5.0 mm (0.20)
100		K101J10C0GF5.L2	2.5 mm (0.10)
100		K101J10C0GF5.H5	5.0 mm (0.20)
120		K121J10C0GF5.L2	2.5 mm (0.10)
120		K121J10C0GF5.H5	5.0 mm (0.20)
150		K151J10C0GF5.L2	2.5 mm (0.10)
150		K151J10C0GF5.H5	5.0 mm (0.20)
180		K181J10C0GF5.L2	2.5 mm (0.10)
180		K181J10C0GF5.H5	5.0 mm (0.20)
220		K221J10C0GF5.L2	2.5 mm (0.10)
220		K221J10C0GF5.H5	5.0 mm (0.20)
270		K271J10C0GF5.L2	2.5 mm (0.10)
270		K271J10C0GF5.H5	5.0 mm (0.20)
330		K331J10C0GF5.L2	2.5 mm (0.10)
330		K331J10C0GF5.H5	5.0 mm (0.20)
390		K391J10C0GF5.L2	2.5 mm (0.10)
390		K391J10C0GF5.H5	5.0 mm (0.20)
470	K471J10C0GF5.L2	2.5 mm (0.10)	
470	K471J10C0GF5.H5	5.0 mm (0.20)	
560	K561J10C0GF5.L2	2.5 mm (0.10)	
560	K561J10C0GF5.H5	5.0 mm (0.20)	
680	K681J10C0GF5.L2	2.5 mm (0.10)	
680	K681J10C0GF5.H5	5.0 mm (0.20)	
820	K821J10C0GF5.L2	2.5 mm (0.10)	
820	K821J10C0GF5.H5	5.0 mm (0.20)	
1000	K102J10C0GF5.L2	2.5 mm (0.10)	
1000	K102J10C0GF5.H5	5.0 mm (0.20)	

Note

(1) 10 % tolerance available



MONO-KAP X7R - 100 V_{DC} CLEAR TEXT CODE			
CAPACITANCE (pF)	RATED VOLTAGE (V_{DC})	10 % TOLERANCE 13th digit (T = Reel, U = Ammo, 3 = Bulk)	LEAD SPACING mm (inch)
100	100	K101K10X7RH5.L2	2.5 mm (0.10)
100		K101K10X7RH5.H5	5.0 mm (0.20)
120		K121K10X7RH5.L2	2.5 mm (0.10)
120		K121K10X7RH5.H5	5.0 mm (0.20)
150		K151K10X7RH5.L2	2.5 mm (0.10)
150		K151K10X7RH5.H5	5.0 mm (0.20)
180		K181K10X7RH5.L2	2.5 mm (0.10)
180		K181K10X7RH5.H5	5.0 mm (0.20)
220		K221K10X7RH5.L2	2.5 mm (0.10)
220		K221K10X7RH5.H5	5.0 mm (0.20)
270		K271K10X7RH5.L2	2.5 mm (0.10)
270		K271K10X7RH5.H5	5.0 mm (0.20)
330		K331K10X7RH5.L2	2.5 mm (0.10)
330		K331K10X7RH5.H5	5.0 mm (0.20)
390		K391K10X7RH5.L2	2.5 mm (0.10)
390		K391K10X7RH5.H5	5.0 mm (0.20)
470		K471K10X7RH5.L2	2.5 mm (0.10)
470		K471K10X7RH5.H5	5.0 mm (0.20)
560		K561K10X7RH5.L2	2.5 mm (0.10)
560		K561K10X7RH5.H5	5.0 mm (0.20)
680		K681K10X7RH5.L2	2.5 mm (0.10)
680		K681K10X7RH5.H5	5.0 mm (0.20)
820		K821K10X7RH5.L2	2.5 mm (0.10)
820		K821K10X7RH5.H5	5.0 mm (0.20)
1000		K102K10X7RH5.L2	2.5 mm (0.10)
1000		K102K10X7RH5.H5	5.0 mm (0.20)
1200		K122K10X7RH5.L2	2.5 mm (0.10)
1200		K122K10X7RH5.H5	5.0 mm (0.20)
1500		K152K10X7RH5.L2	2.5 mm (0.10)
1500		K152K10X7RH5.H5	5.0 mm (0.20)
1800		K182K10X7RH5.L2	2.5 mm (0.10)
1800		K182K10X7RH5.H5	5.0 mm (0.20)
2200		K222K10X7RH5.L2	2.5 mm (0.10)
2200		K222K10X7RH5.H5	5.0 mm (0.20)
2700		K272K10X7RH5.L2	2.5 mm (0.10)
2700		K272K10X7RH5.H5	5.0 mm (0.20)
3300		K332K10X7RH5.L2	2.5 mm (0.10)
3300		K332K10X7RH5.H5	5.0 mm (0.20)
3900		K392K10X7RH5.L2	2.5 mm (0.10)
3900		K392K10X7RH5.H5	5.0 mm (0.20)
4700	K472K10X7RH5.L2	2.5 mm (0.10)	
4700	K472K10X7RH5.H5	5.0 mm (0.20)	
5600	K562K10X7RH5.L2	2.5 mm (0.10)	
5600	K562K10X7RH5.H5	5.0 mm (0.20)	
6800	K682K10X7RH5.L2	2.5 mm (0.10)	
6800	K682K10X7RH5.H5	5.0 mm (0.20)	
8200	K822K10X7RH5.L2	2.5 mm (0.10)	
8200	K822K10X7RH5.H5	5.0 mm (0.20)	
10 000	K103K10X7RH5.L2	2.5 mm (0.10)	
10 000	K103K10X7RH5.H5	5.0 mm (0.20)	

Note

(1) 20 % tolerance available



MONO-KAP C0G - 100 V _{DC} CLEAR TEXT CODE			
CAPACITANCE (pF)	RATED VOLTAGE (V _{DC})	5 % TOLERANCE 13 th digit (T = Reel, U = Ammo, 3 = Bulk)	LEAD SPACING mm (inch)
10	100	K100J10C0GH5.L2	2.5 mm (0.10)
10		K100J10C0GH5.H5	5.0 mm (0.20)
12		K120J10C0GH5.L2	2.5 mm (0.10)
12		K120J10C0GH5.H5	5.0 mm (0.20)
15		K150J10C0GH5.L2	2.5 mm (0.10)
15		K150J10C0GH5.H5	5.0 mm (0.20)
18		K180J10C0GH5.L2	2.5 mm (0.10)
18		K180J10C0GH5.H5	5.0 mm (0.20)
22		K220J10C0GH5.L2	2.5 mm (0.10)
22		K220J10C0GH5.H5	5.0 mm (0.20)
27		K270J10C0GH5.L2	2.5 mm (0.10)
27		K270J10C0GH5.H5	5.0 mm (0.20)
27		K270J10C0GH5.L2	2.5 mm (0.10)
27		K270J10C0GH5.H5	5.0 mm (0.20)
33		K330J10C0GH5.L2	2.5 mm (0.10)
33		K330J10C0GH5.H5	5.0 mm (0.20)
39		K390J10C0GH5.L2	2.5 mm (0.10)
39		K390J10C0GH5.H5	5.0 mm (0.20)
47		K470J10C0GH5.L2	2.5 mm (0.10)
47		K470J10C0GH5.H5	5.0 mm (0.20)
56		K560J10C0GH5.L2	2.5 mm (0.10)
56		K560J10C0GH5.H5	5.0 mm (0.20)
68		K680J10C0GH5.L2	2.5 mm (0.10)
68		K680J10C0GH5.H5	5.0 mm (0.20)
82		K820J10C0GH5.L2	2.5 mm (0.10)
82		K820J10C0GH5.H5	5.0 mm (0.20)
100		K101J10C0GH5.L2	2.5 mm (0.10)
100		K101J10C0GH5.H5	5.0 mm (0.20)
120		K121J10C0GH5.L2	2.5 mm (0.10)
120		K121J10C0GH5.H5	5.0 mm (0.20)
150		K151J10C0GH5.L2	2.5 mm (0.10)
150		K151J10C0GH5.H5	5.0 mm (0.20)
180	K181J10C0GH5.L2	2.5 mm (0.10)	
180	K181J10C0GH5.H5	5.0 mm (0.20)	
220	K221J10C0GH5.L2	2.5 mm (0.10)	
220	K221J10C0GH5.H5	5.0 mm (0.20)	
270	K271J10C0GH5.L2	2.5 mm (0.10)	
270	K271J10C0GH5.H5	5.0 mm (0.20)	
330	K331J10C0GH5.L2	2.5 mm (0.10)	
330	K331J10C0GH5.H5	5.0 mm (0.20)	
390	K391J10C0GH5.L2	2.5 mm (0.10)	
390	K391J10C0GH5.H5	5.0 mm (0.20)	
470	K471J10C0GH5.L2	2.5 mm (0.10)	
470	K471J10C0GH5.H5	5.0 mm (0.20)	
560	K561J10C0GH5.L2	2.5 mm (0.10)	
560	K561J10C0GH5.H5	5.0 mm (0.20)	

Note

(1) 10 % tolerance available



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold Vishay and its distributors harmless from and against any and all claims, liabilities, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that Vishay or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.