

KCM·KC3·KCAseries / <2220 size>

Features

1. Drastically reduce acoustic noise caused by piezoelectric property of MLCC.
2. The elastic action of the metal pins helps to reduce the amount of stress generated by thermal and mechanical impact and also makes the capacitors very reliable.
3. By stacking a pair of capacitors one on top of the other, less space is required for mounting, and a high level of capacitance is achieved.

Global Part Numbering

KC M 55 W R7 1E 686 M H01 K
-1- -2- -3- -4- -5- -6- -7- -8- -9- -10-

-1-:Product ID

Code	Product
KC	Metal Terminal Type for Automotive

-2-:Series

Code	Series
M	General Purpose Products
3	High effective capacitance & High allowable ripple current
A	Safety Standard Certified

-3-:Chip Dimension (LxW)

Code	Dimension (LxW)
55	5.7x5.0mm (EIA:2220)

-4-:Dimension (T)

Code	Dimension (T)
L	2.8mm
R	3.6mm
Q	3.7mm
T	4.8mm
V	6.2mm
W	6.4mm

-5-:Temperature Characteristics

Code	TC	Temp. Range	Cap. Change or Temp. Coefficient	Operating Temp.
R7	X7R	-55~125°C	+/-15%	-55~125°C
D7	X7T	-55~125°C	+22/-33%	-55~125°C
7U	U2J	25~125°C	-750±120ppm/°C	-55~125°C
5C	C0G	25~125°C	0±30ppm/°C	-55~125°C

-6-:Rated Voltage

Code	Rated Voltage
1E	DC 25V
YA	DC 35V
1H	DC 50V
1J	DC 63V
2A	DC 100V
2E	DC 250V
2W	DC 450V
LP	DC 450V(*)
2J	DC 630V
LQ	DC 630V(*)
3A	DC 1000V
MF	AC 250Vrms

*:Rated Voltage de-rating

-7-:Capacitance

Code	Capacitance
103	0.01μF
104	0.1μF
105	1μF
106	10μF

-8-:Capacitance Tolerance

Code	Cap. Tol.
J	+/-10%
K	+/-10%
M	+/-20%

-9-:Individual Specification Code

-10-:Packaging

Code	Packaging
L	φ 180mm Embossed Taping
K	φ 330mm Embossed Taping

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Capacitance Range

■ Mass Production ■ Development

KCM series <2220 size>

Rated Voltage : DC25V to DC100V
X7R, X7S char.

LW size (mm) /Chip size mm(inch)	Temp. Char.	Rated Voltage(DC)	Element	Height (mm)	Capacitance (uF)													
					2.2	3.3	4.7	6.8	10	15	22	33	47	68	100			
6.1 × 5.3 Chip size 5750 (2220)	X7R X7S	25V	1	2.8														
				3.7														
				4.8														
			2	6.4														
				2.8														
				3.7							176							
		35V	1	4.8														
				6.4														
				2.8														
			2	3.7														
				4.8														
				6.4														
		50V	1	2.8														
				3.7														
				4.8														
			2	6.4														
				2.8														
				3.7														
		63V	1	4.8														
				6.4														
				2.8														
			2	3.7														
				4.8														
				6.4														
100V	1	2.8																
		3.7																
		4.8																
	2	6.4																
		2.8																
		3.7																

Cap. Step: 1element-products --- E12-step
 2element-products --- Not E12-step
 (Capacitance of 1 element x2)

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Capacitance Range

■ Mass Production ■ Development

KCM series <2220 size>

Rated Voltage : DC630V, DC1000V
U2J char.

LW size (mm) /Chip size mm(inch)	Temp. Char.	Rated Voltage(DC)	Element	Height (mm)	Capacitance (nF)																
					6.8	8.2	10	12	15	16	20	27	33	39	47	56	66	78	94		
6.1 × 5.1 Chip size 5750 (2220)	U2J	630V	1	2.8																	
			2	4.8																	
		1000V	1	2.8																	
			2	4.8																	

Rated Voltage : DC630V
COG char.

LW size (mm) /Chip size mm(inch)	Temp. Char.	Rated Voltage(DC)	Element	Height (mm)	Capacitance (nF)																
					13	15	18	22	27	30	36	44	54	57							
6.1 × 5.1 Chip size 5750 (2220)	COG	630V	1	2.8																	
				3.6																	
			2	4.8																	
				6.2																	

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Capacitance Range

■ Mass Production ■ Development

KC3 series <2220 size>

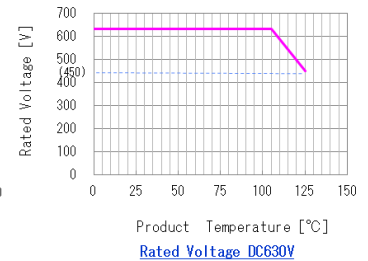
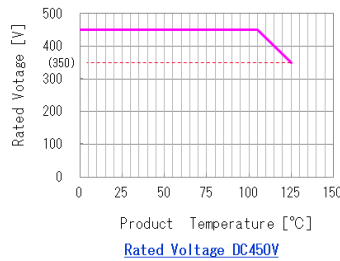
Rated Voltage : DC250V to DC630V
X7T char.

LW size (mm) /Chip size mm(inch)	Temp. Char.	Rated Voltage(DC)	Element	Height (mm)	Capacitance (uF)																	
					0.10	0.15	0.22	0.27	0.33	0.47	0.56	0.68	1.0	1.2	1.5	2.2	3.3	4.7				
6.1 × 5.3 Chip size 5750 (2220)	X7T	250V	1	2.8																		
				3.7																		
				4.8																		
			2	4.8																		
				6.4																		
				6.4																		
		450V	1	2.8									*									
				3.7										*								
				4.8												*						
			2	4.8													*					
				6.4														*				
				6.4															*			
630V	1	2.8						*	*													
		3.7							*													
		4.8								*	*											
	2	4.8									*	*										
		6.4											*									
		6.4												*								

※Rated voltage de-rating product

When the product temperature exceeds 105°C,
reduce rated voltage.

*See the following de-rating curve.



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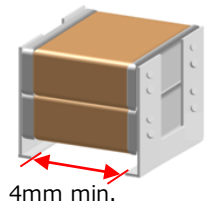
Capacitance Range

Mass Production
 Development
 NRND

KCA series Type MF (IEC60384-14 Class X1/Y2)

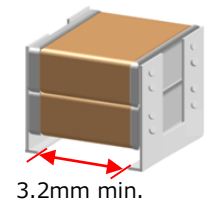
LW size (mm) /Chip size mm(inch)	Temp. Char.	Rated Voltage (AC(rms))	Element	Height (mm)	Capacitance																
					pF						nF										
					100	150	220	330	470	680	1.0	1.5	2.2	3.3	4.7	6.8	10				
6.1 × 5.1 Chip size 5750 (2220)	U2J	250V	1	2.8																	
				3.7																	
			2	4.8																	
				6.4																	

NEW!!



Distance between metal terminals: 3.2mm min.

LW size (mm) /Chip size mm(inch)	Temp. Char.	Rated Voltage (AC(rms))	Element	Height (mm)	Capacitance																
					pF						nF										
					100	150	220	330	470	680	1.0	1.5	2.2	3.3	4.7	6.8	10				
6.1 × 5.3 Chip size 5750 (2220)	U2J	250V	1	2.8																	
				3.7																	
			2	4.8																	
				6.4																	



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KCM series (DC25V to DC100V)

Rated Voltage	LW size (mm)	Height (mm)	Element	TC	Cap.	Cap. Tol.	Murata P.N.	Sample	MP
DC25V	6.1 × 5.3	2.8	1	X7R	15μF	±10%	KCM55LR71E156KH01K	Available	Mass Production
				X7R	22μF	±10%	KCM55QR71E226KH01K	Available	Mass Production
		3.7	1	X7R	33μF	±10%	KCM55QR71E336KH01K	Available	Mass Production
				X7S	47μF	±10%	KCM55QC71E476KH13K	Available	Mass Production
		4.8	2	X7R	33μF	±20%	KCM55TR71E336MH01K	Available	Mass Production
				X7R	47μF	±20%	KCM55WR71E476MH01K	Available	Mass Production
6.4	2	X7R	68μF	±20%	KCM55WR71E686MH01K	Available	Mass Production		
		X7S	100μF	±20%	KCM55WC71E107MH13K	Available	Mass Production		
DC35V	6.1 × 5.3	2.8	1	X7R	10μF	±10%	KCM55LR71A106KH01K	Available	Mass Production
				X7R	15μF	±10%	KCM55LR71A156KH01K	Available	Mass Production
		3.7	1	X7R	17μF	±10%	KCM55QR71A176KH01K	Available	Mass Production
				X7R	22μF	±10%	KCM55QR71A226KH01K	Available	Mass Production
		4.8	2	X7R	22μF	±20%	KCM55TR71A226MH01K	Available	Mass Production
				X7R	33μF	±20%	KCM55TR71A336MH01K	Available	Mass Production
6.4	2	X7R	33μF	±20%	KCM55WR71A336MH01K	Available	Mass Production		
		X7R	47μF	±20%	KCM55WR71A476MH01K	Available	Mass Production		
DC50V	6.1 × 5.3	2.8	1	X7R	4.7μF	±10%	KCM55LR71H475KH01K	Available	Mass Production
				X7R	10μF	±10%	KCM55LR71H106KH01K	Available	Mass Production
		3.7	1	X7R	10μF	±10%	KCM55QR71H106KH01K	Available	Mass Production
				X7R	17μF	±10%	KCM55QR71H176KH01K	Available	Mass Production
		4.8	2	X7R	22μF	±20%	KCM55TR71H226MH01K	Available	Mass Production
				X7R	22μF	±20%	KCM55WR71H226MH01K	Available	Mass Production
6.4	2	X7R	33μF	±20%	KCM55WR71H336MH01K	Available	Mass Production		
		X7R	33μF	±20%	KCM55WR71H336MH01K	Available	Mass Production		
DC63V	6.1 × 5.3	2.8	1	X7R	4.7μF	±10%	KCM55LR71J475KH01K	Available	Mass Production
		3.7	1	X7R	10μF	±10%	KCM55QR71J106KH01K	Available	Mass Production
		6.4	2	X7R	22μF	±20%	KCM55WR71J226MH01K	Available	Mass Production
DC100V	6.1 × 5.3	2.8	1	X7R	4.7μF	±10%	KCM55LR72A475KH01K	Available	Mass Production
				X7R	6.8μF	±10%	KCM55QR72A685KH01K	Available	Mass Production
		3.7	1	X7R	10μF	±10%	KCM55QR72A106KH01K	Available	Mass Production
				X7R	10μF	±20%	KCM55TR72A106MH01K	Available	Mass Production
		4.8	2	X7R	10μF	±20%	KCM55TR72A106MH01K	Available	Mass Production
				X7R	15μF	±20%	KCM55WR72A156MH01K	Available	Mass Production
X7R	22μF	±20%	KCM55WR72A226MH01K	Available	Mass Production				

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KCM · KC3 · KCA series / <2220 size>

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KCM series (DC630V to DC1000V) U2J char.

Rated Voltage	LW size (mm)	Height (mm)	Element	TC	Cap.	Cap. Tol.	Murata P.N.	Sample	MP
DC630V	6.1 × 5.1	2.8	1	U2J	33nF	±5%	KCM55L7U2J333JDL1K	Available(ES)	'20,CQ1
				U2J	39nF	±5%	KCM55L7U2J393JDL1K	Available(ES)	'20,CQ1
				U2J	47nF	±5%	KCM55L7U2J473JDL1K	Available(ES)	'20,CQ1
		4.8	2	U2J	66nF	±10%	KCM55T7U2J663KDL1K	Available(ES)	'20,CQ1
				U2J	78nF	±10%	KCM55T7U2J783KDL1K	Available(ES)	'20,CQ1
				U2J	94nF	±10%	KCM55T7U2J943KDL1K	Available(ES)	'20,CQ1
DC1000V	6.1 × 5.1	2.8	1	U2J	8.2nF	±5%	KCM55L7U3A822JDL1K	Available(ES)	'20,CQ1
				U2J	10nF	±5%	KCM55L7U3A103JDL1K	Available(ES)	'20,CQ1
		4.8	2	U2J	16nF	±10%	KCM55T7U3A163KDL1K	Available(ES)	'20,CQ1
				U2J	20nF	±10%	KCM55T7U3A203KDL1K	Available(ES)	'20,CQ1

KCM series (DC630V) COG char. NEW!!

Rated Voltage	LW size (mm)	Height (mm)	Element	TC	Cap.	Cap. Tol.	Murata P.N.	Sample	MP
DC630V	6.1 × 5.1	2.8	1	C0G	15nF	±5%	KCM55L5C2J153JDL1K	Available	Mass Production
				C0G	18nF	±5%	KCM55L5C2J183JDL1K	Available	Mass Production
		3.6	1	C0G	22nF	±5%	KCM55R5C2J223JDL1K	Available	Mass Production
				C0G	27nF	±5%	KCM55R5C2J273JDL1K	Available	Mass Production
		4.8	2	C0G	30nF	±5%	KCM55T5C2J303JDL1K	Available	Mass Production
				C0G	36nF	±5%	KCM55T5C2J363JDL1K	Available	Mass Production
		6.2	2	C0G	44nF	±5%	KCM55V5C2J443JDL2K	Available	Mass Production
				C0G	54nF	±5%	KCM55V5C2J543JDL2K	Available	Mass Production

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KC3 series

Rated Voltage	LW size (mm)	Height (mm)	Element	TC	Cap.	Cap. Tol.	Murata P.N.	Sample	MP				
DC250V	6.1 × 5.3	2.8	1	X7T	0.47μF	±10%	KC355LD72E474KH01K	Available	Mass Production				
				X7T	0.68μF	±10%	KC355LD72E684KH01K	Available	Mass Production				
		3.7	1	X7T	1.0μF	±10%	KC355QD72E105KH01K	Available	Mass Production				
				4.8	2	X7T	1.5μF	±20%	KC355TD72E155MH01K	Available	Mass Production		
						X7T	2.2μF	±20%	KC355WD72E225MH01K	Available	Mass Production		
DC450V	6.1 × 5.3	2.8	1	X7T	0.22μF	±10%	KC355LD72W224KH01K	Available	Mass Production				
				X7T	0.33μF	±10%	KC355LD72W334KH01K	Available	Mass Production				
				X7T	0.47μF	±10%	KC355LD72W474KH01K	Available	Mass Production				
				X7T	0.68μF	±10%	KC355LD7LP684KV01K (*)	Available	Mass Production				
		3.7	1	X7T	0.56μF	±10%	KC355QD72W564KH01K	Available	Mass Production				
				X7T	1.0μF	±10%	KC355QD7LP105KV01K (*)	Available	Mass Production				
		4.8	2	X7T	0.68μF	±20%	KC355TD72W684MH01K	Available	Mass Production				
				X7T	1.0μF	±20%	KC355TD72W105MH01K	Available	Mass Production				
				X7T	1.5μF	±20%	KC355TD7LP155MV01K(*)	Available	Mass Production				
		6.4	2	X7T	1.2μF	±20%	KC355WD72W125MH01K	Available	Mass Production				
				X7T	2.2μF	±20%	KC355WD7LP225MV01K (*)	Available	Mass Production				
				DC630V	6.1 × 5.3	2.8	1	X7T	0.1μF	±10%	KC355LD72J104KH01K	Available	Mass Production
								X7T	0.15μF	±10%	KC355LD72J154KH01K	Available	Mass Production
		X7T	0.33μF					±10%	KC355LD7LQ334KV01K(*)	Available	Mass Production		
X7T	0.47μF	±10%	KC355LD7LQ474KV01K (*)					Available	Mass Production				
3.7	1	X7T	0.22μF			±10%	KC355QD72J224KH01K	Available	Mass Production				
		X7T	0.27μF	±10%	KC355QD72J274KH01K	Available	Mass Production						
		X7T	0.56μF	±10%	KC355QD7LQ564KV01K (*)	Available	Mass Production						
4.8	2	X7T	0.68μF	±20%	KC355TD7LQ684MV01K (*)	Available	Mass Production						
		X7T	1.0μF	±20%	KC355TD7LQ105MV01K (*)	Available	Mass Production						
6.4	2	X7T	0.47μF	±20%	KC355WD72J474MH01K	Available	Mass Production						
		X7T	0.56μF	±20%	KC355WD72J564MH01K	Available	Mass Production						
		X7T	1.2μF	±20%	KC355WD7LQ125MV01K (*)	Available	Mass Production						

* : Rated voltage de-rating product

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KCM·KC3·KCAseries / <2220 size>

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KCA series Type MF (IEC60384-14 ClassX1/Y2)

NEW!!

Rated Voltage	LW size (mm)	Height (mm)	Element	TC	Cap.	Cap. Tol.	Murata P.N.	Sample	MP		
AC250Vrms	6.1 × 5.1	2.8	1	U2J	100pF	±10%	KCA55L7UMF101KL01K	Available	Mass Production		
				U2J	150pF	±10%	KCA55L7UMF151KL01K	Available	Mass Production		
				U2J	220pF	±10%	KCA55L7UMF221KL01K	Available	Mass Production		
				U2J	330pF	±10%	KCA55L7UMF331KL01K	Available	Mass Production		
				U2J	470pF	±10%	KCA55L7UMF471KL01K	Available	Mass Production		
				U2J	680pF	±10%	KCA55L7UMF681KL01K	Available	Mass Production		
				U2J	1000pF	±10%	KCA55L7UMF102KL01K	Available	Mass Production		
				U2J	1500pF	±10%	KCA55L7UMF152KL01K	Available	Mass Production		
				U2J	2200pF	±10%	KCA55L7UMF222KL01K	Available	Mass Production		
		U2J	3300pF	±10%	KCA55L7UMF332KL01K	Available	Mass Production				
				3.7	1	U2J	4700pF	±10%	KCA55Q7UMF472KL01K	Available	Mass Production
				4.8	2	U2J	6800pF	±20%	KCA55T7UMF682ML01K	Available	Mass Production
				6.4	2	U2J	10nF	±20%	KCA55W7UMF103ML01K	Available	Mass Production

Distance between metal terminals: 3.2mm min.

Rated Voltage	LW size (mm)	Height (mm)	Element	TC	Cap.	Cap. Tol.	Murata P.N.	Sample	MP		
AC250Vrms	6.1 × 5.3	2.8	1	U2J	100pF	±10%	KCA55L7UMF101KH01K	Available	NRND		
				U2J	150pF	±10%	KCA55L7UMF151KH01K	Available	NRND		
				U2J	220pF	±10%	KCA55L7UMF221KH01K	Available	NRND		
				U2J	330pF	±10%	KCA55L7UMF331KH01K	Available	NRND		
				U2J	470pF	±10%	KCA55L7UMF471KH01K	Available	NRND		
				U2J	680pF	±10%	KCA55L7UMF681KH01K	Available	NRND		
				U2J	1000pF	±10%	KCA55L7UMF102KH01K	Available	NRND		
				U2J	1500pF	±10%	KCA55L7UMF152KH01K	Available	NRND		
				U2J	2200pF	±10%	KCA55L7UMF222KH01K	Available	NRND		
		U2J	3300pF	±10%	KCA55L7UMF332KH01K	Available	NRND				
				3.7	1	U2J	4700pF	±10%	KCA55Q7UMF472KH01K	Available	NRND
				4.8	2	U2J	6800pF	±20%	KCA55T7UMF682MH01K	Available	NRND
				6.4	2	U2J	10nF	±20%	KCA55W7UMF103MH01K	Available	NRND

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