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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# MURATA PRODUCTS Lineup 2018



# 2018 MURATA PRODUCTS Lineup

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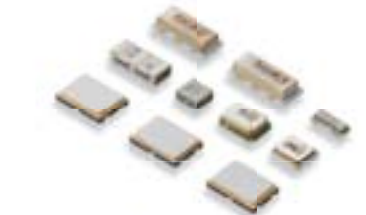
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# Capacitors

The most comprehensive product lineup in the industry, providing ideal solutions, responding to all possible requirements.

## Summary

Using Murata's unique material technology, we offer a variety of capacitors covering a wide range of voltages. Murata also offers technical support that includes design kits and a comprehensive set of software tools to simulate virtually any circuit condition, satisfying the demands of many applications.

## Lineup

- Ceramic Capacitors (SMD, lead type, mold type)
- Polymer Aluminum Electrolytic Capacitors
- Supercapacitors (EDLC)



<https://www.murata.com/en-global/products/capacitor>

## WEB Product Search Engine



### 1 Search by Part Number

You can search for capacitors by specifying the alphanumeric characters in the part number. The packing codes shown contain the substitute character "#". If you enter the official packing code, part numbers that contain that packing code will be matched.



### 2 Search by Specifications

You can search for SMD, lead type, or screw termination type capacitors by indicating specifications such as application, capacitance, rated voltage, or temperature characteristics.

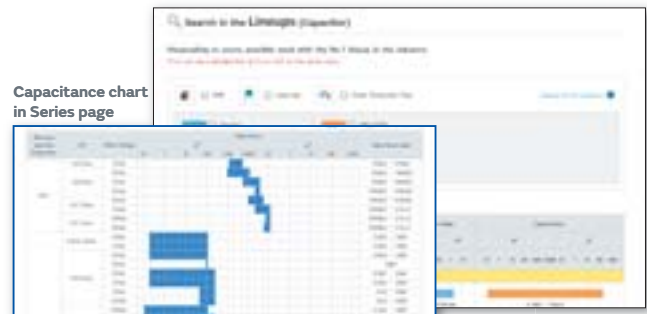
You can narrow your search by entering values of ranges, and by specifying product characteristics.

The items for narrowing searches are linked, so specifying one condition causes selectable options for the other items to allow input only of conditions that match the relevant part numbers.



### 3 Search in the Lineups

You can search for capacitors by specifying the series lineup. You can also confirm items such as characteristics and applications on each series page.



## Search results

Compares the characteristics of the checked  part numbers.

Displays the number of hits for the current search conditions in real time.

Clicking on each search condition button brings up a menu, allowing you to narrow the search results to match the selected condition in real time.

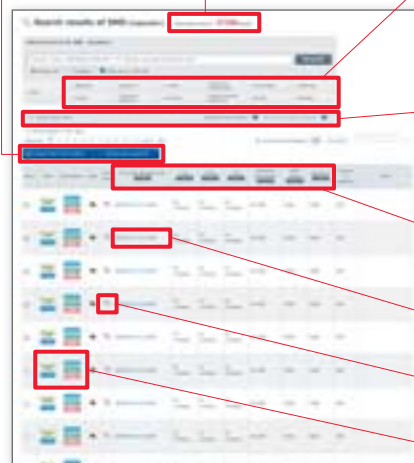
Click "Current search terms" to display a menu, from which you can confirm the current conditions for narrowing the search results.

Click the ▲ mark for each item to switch between ascending and descending display.

















Click a product name to display a details page listing more in-depth information.

You can download detailed spec sheets.

Icons enable you to check the status and characteristics of products at a glance.



## Icons

	For applications that do not require a particular reliability, such as general equipment.
	Infotainment for Automotive Products for entertainment equipment like car navigation, car audio, and body control equipment like wipers and power windows.
	Powertrain/Safety for Automotive Products used for applications (running, turning, stopping, and safety devices) that particularly concern human life, such as in devices for automotive.
	Medical-grade products for Implanted Medical Devices These products are intended for use in implanted medical devices such as cardiac pacemakers, cochlear implants, insulin pumps, and gastric electrostimulators. They are suitable for use in non-critical circuits.*1 *1 Non-critical circuits This term refers to circuits in implanted medical devices that are not directly linked to life support, i.e., circuits that will not directly endanger the life of the patient should the functionality of the device be reduced or halted by failure of the circuit.
	AEC-Q200 compliant product
	Products that acquired safety standard certification IEC60384-14.
	Products that are based on the Electrical Appliance and Material Safety Law of Japan.
	Low dissipation for high frequency By devising ceramic materials and electrode materials, low dissipation is achieved in frequency bands of VHF, UHF, and microwave or beyond.
	Low inductance This capacitor is designed so that the parasitic inductance component (ESL) that the capacitor has on the high frequency side becomes lower.
	Fail safe product This capacitor is designed to prevent failures as much as possible by short mode.
	Product resistant to deflection cracking This capacitor is designed to prevent failures as much as possible by short mode caused by cracking when there is board deflection.
	Product with solder cracking suppression This capacitor is configured with metal terminals and leads connected to the chip. The metal terminals and leads relieve the stress from expansion and contraction of the solder, to suppress solder cracking.
	Product suitable for acoustic noise reduction and low distortion This product suppresses acoustic noise, which occurs when a ceramic capacitor is used, by devising the materials and configuration.
	No DC bias characteristics Polymer capacitor is no capacitance change with DC bias due to aluminum oxidized film for dielectric.
	Low-inductance product suitable for noise suppression. This product has extremely low ESL and is suitable for suppression of noise, including high frequencies. This product can also be used as a low-ESL, high-performance bypass capacitor.
	Product for bonding Since gold is used for the external electrodes, the capacitor can be mounted by die bonding/wire bonding.
	Limited to Conductive Glue Mounting Since silver palladium is used for the external electrodes, the capacitor can be mounted by conductive adhesive.

# Product Lineup

For general		
General	SMD	
Solder mounting		
Chip type		
	GRM	p5
	GRM	For LCD backlight inverter circuit only p7
	GR3	High effective capacitance & high ripple current p7
	GRJ	Soft termination p8
	GXM	Water resistant WEB
	GR4	For information devices only p9
	GR7	For camera flash circuit only p9
	GJM	High Q p9
	GQM	High power p9
	GA2	Based on the Electrical Appliance and Material Safety Law of Japan p10
	GA3	Safety standard p10
	LLL	Low ESL LW reversed p11
	LLA	Low ESL 8 terminals p11
	LLM	Low ESL 10 terminals p11
	LLR	Low ESL LW reversed controlled ESR p12
	NFM	Low ESL 3 terminals p12
	GJ4	Anti-noise Low distortion WEB
	GJ8	Anti-noise Low acoustic noise WEB
On interposer board		
	ZRA	Anti-noise WEB
	ZRB	Anti-noise WEB
Metal terminal type		
	KRM	Anti-noise Deflecting crack Soldering crack p12
	KR3	Anti-noise Deflecting crack Soldering crack High effective capacitance & high ripple current p13
Resin molding SMD type		
	DK1	Safety standard p28
Polymer Aluminum Electrolytic Capacitors		
	ECAS	Anti-noise Deflecting crack Effective Cap p29
	ECNS	Anti-noise Deflecting crack Effective Cap p29
Wire bonding mounting		
	Chip type	
	GMA	Microchip p13
	GMD	p13
Lead type		
Solder mounting		
	RDE	Anti-noise Deflecting crack Soldering crack p21
	DEH	High temperature low loss WEB
	DEA	High temperature Class 1 WEB
	DEB	Class 2 WEB
	DEC	WEB
	DEF	For LCD backlight inverter circuit only WEB
	DHR	Ultra-high-voltage Deflecting crack Soldering crack p23
	DEJ	Japanese Safety Law Based on the Electrical Appliance and Material Safety Law of Japan p23
	DE1	Safety standard X1/Y1 Class certified product p24
	DE2	Safety standard X1/Y2 Class certified product p24

For general		
General	Screw termination mounting	
	DHS	Ultra-high-voltage p28
	DHK	Ultra-high-voltage High voltage AC rated p28

Infotainment for automotive		
Infotainment AEC-Q200	SMD	
Solder mounting		
Chip type		
	GRT	p14

Powertrain/Safety for automotive		
Powertrain AEC-Q200	SMD	
Solder mounting		
Chip type		
	GCM	p15
	GC3	Anti-noise High effective capacitance & high ripple current p16
	GCJ	Fall safe Deflecting crack Soft termination p16
	GGM	Water resistant WEB
	GCQ	High Q p17
	GCD	Fall safe Deflecting crack MLSC design p18
	GCE	Fall safe Deflecting crack Soft termination MLSC design p18
	GGD	Fall safe Deflecting crack Water resistant MLSC design WEB
	NFM	Low ESL 3 terminals p18
Metal terminal type		
	KCM	Anti-noise Deflecting crack Soldering crack p18
	KC3	Anti-noise Deflecting crack Soldering crack High effective capacitance & high ripple current p19
	KCA	Safety standard Anti-noise Deflecting crack Soldering crack p19
Limited to Conductive Glue Mounting		
	Chip type	
	GCB	Deflecting crack Soldering crack Ni plating + Pd plating termination conductive glue mounting p19
	GCG	Deflecting crack Soldering crack AgPd termination conductive glue mounting p19
Lead type		
Solder mounting		
	RCE	Anti-noise Deflecting crack Soldering crack p25
	RHE	Anti-noise Deflecting crack Soldering crack 150°C operation leaded p27
	RHS	Anti-noise Deflecting crack Soldering crack 200°C operation leaded p27
	DE6	Safety standard p27

Medical-grade products for implanted medical devices		
Medical Device	SMD	
Solder mounting		
Chip type		
	GCH	p20

# Ceramic capacitors SMD type For General Purpose

## Chip Multilayer Ceramic Capacitors for General Purpose

### Temperature Compensating Type



GRM

General

Series	LxW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
GRM02	0.4X0.2 <01005>	50	0.20pF			100pF									
		25				120pF	220pF								
		16				120pF	220pF								
GRM03	0.6X0.3 <0201>	100	0.10pF			100pF									
		50	0.10pF				220pF								
		25					270pF	1000pF							
GRM15	1.0X0.5 <0402>	100	0.10pF			100pF									
		50	0.10pF					1000pF							
		10						1200pF	4700pF						
GRM18	1.6X0.8 <0603>	100	0.50pF					1500pF							
		50	0.50pF						10000pF						
		10							5600pF	22000pF					
GRM21	2.0X1.25 <0805>	630			10pF				1200pF						
		250				10pF				5600pF					
		200				10pF					5600pF				
		100					100pF					3300pF			
		50							1200pF				47000pF		
		10											56000pF	0.10μF	
GRM31	3.2X1.6 <1206>	2k			10pF									68pF	
		1k				10pF								1000pF	
		630				10pF								4700pF	
		500				10pF								4700pF	
		250								390pF				22000pF	
		200									2700pF			10000pF	
		100									1800pF				0.10μF
		50										12000pF			0.10μF
		25													0.12μF
		16													0.12μF
GRM32	3.2X2.5 <1210>	2k				82pF								220pF	
		1k												1200pF	2200pF
		630												1200pF	10000pF
		500												1200pF	10000pF
		250													27000pF
GRM42	4.5X2.0 <1808>	3.15k			10pF								100pF		
GRM43	4.5X3.2 <1812>	1k												2700pF	4700pF
		630												12000pF	22000pF
		500												12000pF	22000pF
GRM55	5.7X5.0 <2220>	1k												5600pF	10000pF
		630												27000pF	47000pF
		500												27000pF	47000pF

Continued on the following page. ↗



Capacitors

High Dielectric Constant Type



GRM


General

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GRM02	0.4X0.2 <01005>	16				100pF	1000pF							
		10				100pF	10000pF							
		6.3					1000pF		0.10μF					
		4						15000pF		0.10μF				
		2.5								0.10μF				
GRM03	0.6X0.3 <0201>	50				100pF	1500pF							
		35							0.10μF					
		25				100pF			0.10μF					
		16					2200pF		0.10μF					
		10					4700pF		0.22μF					
		6.3					4700pF		0.22μF					
		4								0.22μF				
GRM15	1.0X0.5 <0402>	100				220pF	4700pF							
		50				220pF			0.47μF					
		35							0.22μF	1.0μF				
		25					2200pF		2.2μF					
		16					3300pF		2.2μF					
		10					15000pF		4.7μF					
		6.3							0.10μF	4.7μF				
		4							0.10μF	10μF				
GRM18	1.6X0.8 <0603>	250				220pF	2200pF							
		200				220pF	2200pF							
		50								2.2μF				
		35							2.2μF	4.7μF				
		25							1.0μF	10μF				
		16							1.0μF	10μF				
		10							2.2μF	10μF				
		6.3								4.7μF	22μF			
GRM21	2.0X1.25 <0805>	500				1000pF	10000pF							
		250				1000pF	22000pF							
		200				1000pF	22000pF							
		50							1.0μF	4.7μF				
		35							2.2μF	10μF				
		25							1.0μF	22μF				
		16							1.0μF	22μF				
		10							2.2μF	47μF				
GRM31	3.2X1.6 <1206>	1k				470pF	10000pF							
		630				1000pF	22000pF							
		500					15000pF	47000pF						
		250					15000pF	0.10μF						
		200					15000pF	0.10μF						
		100								1.0μF				
		50							1.0μF	10μF				
		35								10μF				
		25								10μF	22μF			
		16								10μF	47μF			
		10									22μF	100μF		

Continued on the following page. ↗

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GRM31	3.2X1.6 <1206>	6.3										22μF	150μF	
		4										47μF	220μF	
		2.5										150μF	220μF	
GRM32	3.2X2.5 <1210>	1k						6800pF	22000pF					
		630						22000pF	47000pF					
		500						68000pF	0.10μF					
		250						68000pF	0.22μF					
		200						68000pF	0.22μF					
		100								1.0μF	4.7μF			
		80									4.7μF			
		63										10μF		
		50									4.7μF	10μF		
		35										10μF		
		25										10μF	22μF	
		16										22μF	47μF	
		10										47μF	100μF	
		6.3										47μF	100μF	
4											100μF			
GRM43	4.5X3.2 <1812>	1k						33000pF	47000pF					
		630						68000pF	0.10μF					
		500							0.15μF	0.22μF				
		250							0.15μF	0.47μF				
		200							0.15μF	0.47μF				
GRM55	5.7X5.0 <2220>	1k						68000pF	0.10μF					
		630							0.15μF	0.22μF				
		500							0.33μF	0.47μF				
		250							0.33μF	1.0μF				
		200							0.33μF	1.0μF				

### Chip Multilayer Ceramic Capacitors for LCD Backlight Inverter Circuit Only




**GRM**

General

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GRM42	4.5X2.0 <1808>	3.15k				5.0pF	47pF							

### High Effective Capacitance & High Ripple Current Chip Multilayer Ceramic Capacitors for General Purpose



**GR3**

General Anti-noise


Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GR321	2.0X1.25 <0805>	250						10000pF	22000pF					
GR331	3.2X1.6 <1206>	630						10000pF	15000pF					
		450						10000pF	47000pF					
GR332	3.2X2.5 <1210>	250						33000pF	68000pF					
		630						22000pF	47000pF					
		450						68000pF	0.10μF					
		250						0.10μF	0.15μF					

Continued on the following page. ↗

# Capacitors

Series	LxW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)													
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ			
GR343	4.5X3.2 <1812>	630									68000pF					
		450									0.15μF					
		250									0.22μF	0.33μF				
GR355	5.7X5.0 <2220>	630								0.10μF	0.22μF					
		450								0.22μF	0.47μF					
		250								0.47μF	1.0μF					

## Soft Termination Chip Multilayer Ceramic Capacitors for General Purpose



General
Deflecting crack

Series	LxW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
GRJ18	1.6X0.8 <0603>	100					1000pF				0.10μF				
		50					1000pF				0.22μF				
		35									1.0μF				
		25							47000pF			1.0μF			
		16									0.47μF				
		6.3									2.2μF	4.7μF			
GRJ21	2.0X1.25 <0805>	250					1000pF			22000pF					
		100				220pF					1.0μF				
		50				470pF					1.0μF				
		25									1.0μF	2.2μF			
		16										4.7μF			
		10										10μF			
GRJ31	3.2X1.6 <1206>	1k					470pF			10000pF					
		630					1000pF			22000pF					
		250							15000pF		0.10μF				
		100								0.10μF	1.0μF				
		50								0.10μF	4.7μF				
		35									10μF				
		25									2.2μF	10μF			
		16									2.2μF	10μF			
		10										10μF	22μF		
GRJ32	3.2X2.5 <1210>	1k						6800pF		22000pF					
		630						22000pF		47000pF					
		250							68000pF		0.22μF				
		100									2.2μF	4.7μF			
		50									4.7μF	10μF			
		25									10μF	22μF			
		16										22μF			
		10										22μF	47μF		
		6.3										47μF			
GRJ43	4.5X3.2 <1812>	1k						33000pF		47000pF					
		630							68000pF	0.10μF					
		250								0.15μF	0.47μF				
GRJ55	5.7X5.0 <2220>	1k							68000pF	0.10μF					
		630								0.15μF	0.22μF				
		250								0.33μF	1.0μF				

## Chip Multilayer Ceramic Capacitors for Ethernet LAN and Primary-secondary Coupling of DC-DC Converters



GR4

General

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GR442	4.5X2.0 <1808>	2k				100pF	1500pF							
GR443	4.5X3.2 <1812>	2k					1800pF	4700pF						
GR455	5.7X5.0 <2220>	2k							10000pF					

## Chip Multilayer Ceramic Capacitors for Camera Flash Circuit Only



GR7

General

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GR721	2.0X1.25 <0805>	350						10000pF	27000pF					
GR731	3.2X1.6 <1206>	350						10000pF	47000pF					

## High Q Chip Multilayer Ceramic Capacitors for General Purpose



GJM

General

High Q

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GJM02	0.4X0.2 <01005>	25	0.20pF	22pF										
GJM03	0.6X0.3 <0201>	50	0.20pF	3.9pF										
		25	1.0pF	33pF										
GJM15	1.0X0.5 <0402>	50	0.10pF	47pF										

## High Q and High Power Chip Multilayer Ceramic Capacitors for General Purpose



GQM


General

High Q

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GQM15	1.0X0.5 <0402>	200	0.10pF	33pF										
		100		36pF	47pF									
GQM18	1.6X0.8 <0603>	250		1.0pF	47pF									
GQM21	2.0X1.25 <0805>	500		1.0pF	22pF									
		250		1.0pF	100pF									
GQM22	2.8X2.8 <1111>	500		1.0pF	100pF									

## Capacitors

## Based on the Electrical Appliance and Material Safety Law of Japan Chip Multilayer Ceramic Capacitors for General Purpose




**GA2**

General
Japanese Safety Law

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (V)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
<b>GA242</b>	4.5X2.0 <1808>	AC250 (r.m.s.)					470pF	1000pF						
<b>GA243</b>	4.5X3.2 <1812>	AC250 (r.m.s.)						2200pF		47000pF				
<b>GA255</b>	5.7X5.0 <2220>	AC250 (r.m.s.)									0.10μF			

## Safety Standard Certified Chip Multilayer Ceramic Capacitors for General Purpose / IEC60384-14 Class X2




**GA3 Type GB**

General
Safety standard

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (V)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
<b>GA355</b>	5.7X5.0 <2220>	AC250 (r.m.s.)						10000pF		56000pF				

## Safety Standard Certified Chip Multilayer Ceramic Capacitors for General Purpose / Acquired Certifications of UL60950-1




**GA3 Type GD**

General
Safety standard

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (V)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
<b>GA342</b>	4.5X2.0 <1808>	AC250 (r.m.s.)			10pF			1500pF						
<b>GA343</b>	4.5X3.2 <1812>	AC250 (r.m.s.)						1800pF		4700pF				

## Safety Standard Certified Chip Multilayer Ceramic Capacitors for General Purpose / Acquired Certifications of IEC60384-14 Class X1/Y2 and UL60950-1




**GA3 Type GF**

General
Safety standard

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (V)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
<b>GA342</b>	4.5X2.0 <1808>	AC250 (r.m.s.)			10pF			1000pF						
<b>GA352</b>	5.7X2.8 <2211>	AC250 (r.m.s.)					100pF		1500pF					
<b>GA355</b>	5.7X5.0 <2220>	AC250 (r.m.s.)							1800pF		4700pF			


### LW Reversed Low ESL Chip Multilayer Ceramic Capacitors for General Purpose



General
Low ESL

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
LLL15	0.5X1.0 <0204>	6.3								0.10μF	0.22μF			
		4									0.47μF	1.0μF		
LLL18	0.8X1.6 <0306>	50					2200pF	4700pF						
		25					10000pF	22000pF						
		16					22000pF	47000pF						
		10							0.10μF	0.22μF				
		4								0.22μF	2.2μF			
LLL21	1.25X2.0 <0508>	50					10000pF	22000pF						
		25					22000pF	0.10μF						
		16					47000pF	0.22μF						
		10							0.22μF	1.0μF				
		6.3								0.47μF				
		4								1.0μF	2.2μF			
LLL31	1.6X3.2 <0612>	50					10000pF	0.10μF						
		25					47000pF	0.47μF						
		16							0.22μF	1.0μF				
		10							0.47μF	2.2μF				
		6.3								2.2μF	10μF			


### 8 Terminals Low ESL Chip Multilayer Ceramic Capacitors for General Purpose



General
Low ESL

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
LLA18	1.6X0.8 <0603>	4								0.10μF	2.2μF			
LLA21	2.0X1.25 <0805>	25					10000pF	47000pF						
		16					47000pF	0.22μF						
		10							0.22μF	0.47μF				
		6.3							0.47μF	1.0μF				
		4								1.0μF	4.7μF			

### 10 Terminals Low ESL Chip Multilayer Ceramic Capacitors for General Purpose




General
Low ESL

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
LLM21	2.0X1.25 <0805>	6.3								0.22μF	0.47μF			
		4									1.0μF			

## Capacitors

### LW Reversed Controlled ESR Low ESL Chip Multilayer Ceramic Capacitors for General Purpose




**LLR**

General Low ESL

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	ESR (mΩ)				Capacitance Range
			100	220	470	1000	
<b>LLR18</b>	0.8X1.6 <0306>	4					1.0μF

### 3 Terminals Low ESL Chip Multilayer Ceramic Capacitors for General Purpose




**NFM**

General Low ESL EMI FIL®

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)													
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ			
<b>NFM15</b>	1.0X0.5 <0402>	16					2200pF									
		10					2200pF									
		6.3									0.10μF					
		4									0.47μF					
		2.5										0.47μF			4.3μF	9.1μF
<b>NFM18</b>	1.6X0.8 <0603>	16					100pF									
		10													2.2μF	
		6.3									0.22μF				2.2μF	
<b>NFM21</b>	2.0X1.25 <0805>	50					220pF									
		25													0.10μF	
		16													0.22μF	
		10													1.0μF	
		6.3													1.0μF	
<b>NFM3D</b>	3.2X1.25 <1205>	50					220pF									
		25														
		16														
<b>NFM31</b>	3.2X1.6 <1206>	100														
		50														
		6.3													27μF	
<b>NFM41</b>	4.5X1.6 <1806>	100					470pF									
		50														
		25														

### Metal Terminal Type Multilayer Ceramic Capacitors for General Purpose



**KRM**

General Deflecting crack Soldering crack Anti-noise

Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
<b>KRM21</b>	2.2X1.25	25													
		16													
<b>KRM31</b>	3.5X1.7	100													
		50													
		35													
		25													
		50													
<b>KRM55</b>	6.1X5.3	1k													
		630													
		450													

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Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
KRM55	6.1X5.3	250								0.68μF	2.2μF			
		100									4.7μF	22μF		
		63									4.7μF	22μF		
		50									4.7μF	33μF		
		35									10μF	47μF		
25										15μF	100μF			

### High Effective Capacitance & High Allowable Ripple Current Metal Terminal Type Multilayer Ceramic Capacitors for General Purpose



KR3

General Deflecting crack Soldering crack Anti-noise

Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
KR355	6.1X5.3	630								0.10μF	0.56μF			
		450									0.22μF	1.2μF		
		250									0.47μF	2.2μF		

### Wire Bonding Mount Multilayer Microchip Capacitors for General Purpose



GMA

General Bonding

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
GMA0D	0.38X0.38 <015015>	10					1000pF	10000pF					
GMA05	0.5X0.5 <0202>	100				100pF	1000pF						
		25					1500pF	4700pF					
		10						6800pF	22000pF				
		6.3							0.10μF				
GMA08	0.8X0.8 <0303>	100					1500pF	6800pF					
		25						10000pF	22000pF				
		10						33000pF	0.10μF				
		6.3							0.47μF				

### Wire Bonding/AuSn Soldering Mount Chip Multilayer Ceramic Capacitors for General Purpose



GMD

General Bonding

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
GMD03	0.6X0.3 <0201>	25				100pF	1500pF						
		16					1800pF	3300pF					
		10					3900pF	10000pF					
		6.3						56000pF	0.10μF				
GMD15	1.0X0.5 <0402>	50				220pF	4700pF						
		25					5600pF	47000pF					
		16						56000pF	0.10μF				
		10							0.12μF	0.47μF			



# Ceramic capacitors SMD type For Automotive

## AEC-Q200 Compliant Chip Multilayer Ceramic Capacitors for Infotainment

### Temperature Compensating Type



GRT



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
GRT15	1.0X0.5 <0402>	100		1.0pF			100pF								
		50		1.0pF				1000pF							
		25			10pF			1000pF							
GRT18	1.6X0.8 <0603>	100		1.0pF					1500pF						
		50		1.0pF						10000pF					
		25					560pF			10000pF					

### High Dielectric Constant Type



GRT



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GRT03	0.6X0.3 <0201>	35									0.10μF			
		25				100pF					0.10μF			
		16						10000pF			0.10μF			
		10						2200pF			0.22μF			
		6.3						2200pF			1.0μF			
		4								68000pF		1.0μF		
GRT15	1.0X0.5 <0402>	50				220pF					0.10μF			
		35								0.22μF		1.0μF		
		25						10000pF			2.2μF			
		16						10000pF			2.2μF			
		10								0.22μF		4.7μF		
		6.3							22000pF			4.7μF		
		4									1.0μF		4.7μF	
2.5											10μF			
GRT18	1.6X0.8 <0603>	50								1.0μF		2.2μF		
		35								1.0μF		4.7μF		
		25								1.0μF		10μF		
		16								1.0μF		10μF		
		10								1.0μF		22μF		
		6.3								1.0μF		22μF		
		4								1.0μF		22μF		
		2.5											22μF	
GRT21	2.0X1.25 <0805>	50								1.0μF		4.7μF		
		35								2.2μF		4.7μF		
		25								2.2μF		22μF		
		16								2.2μF		22μF		
		10								4.7μF		22μF		
		6.3								4.7μF		47μF		
		4											47μF	
GRT31	3.2X1.6 <1206>	50										10μF		
		35										10μF		
		25										10μF	22μF	
		16											22μF	
		10											22μF	47μF

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Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GRT31	3.2X1.6 <1206>	6.3									22μF	47μF		
		4									22μF	47μF		
GRT32	3.2X2.5 <1210>	25									10μF			
		16										47μF		
		10											47μF	
		6.3										33μF	100μF	

## Chip Multilayer Ceramic Capacitors for Automotive

### Temperature Compensating Type



GCM



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
GCM03	0.6X0.3 <0201>	50		1.0pF		100pF							
		25		1.0pF		100pF							
GCM15	1.0X0.5 <0402>	50		1.0pF			1000pF						
GCM18	1.6X0.8 <0603>	100		1.0pF				10000pF					
		80				1800pF	3900pF						
		50		1.0pF				10000pF					
GCM21	2.0X1.25 <0805>	630			10pF		1200pF						
		250			10pF		5600pF						
		100				100pF		3300pF					
		80					3900pF	22000pF					
GCM31	3.2X1.6 <1206>	1k			10pF		1000pF						
		630			10pF		4700pF						
		250			10pF		15000pF						
GCM32	3.2X2.5 <1210>	1k					1200pF	2200pF					
		630					1200pF	10000pF					
GCM43	4.5X3.2 <1812>	1k					2700pF	4700pF					
		630					12000pF	22000pF					
GCM55	5.7X5.0 <2220>	1k					5600pF	10000pF					
		630					27000pF	47000pF					

### High Dielectric Constant Type



GCM




Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
GCM03	0.6X0.3 <0201>	25				100pF		3300pF					
		16				330pF		3300pF					
		10					4700pF	10000pF					
GCM15	1.0X0.5 <0402>	100				220pF		4700pF					
		50				220pF			0.10μF				
		25					10000pF		0.10μF				
		16					33000pF		0.22μF				
		10							0.47μF	1.0μF			
GCM18	1.6X0.8 <0603>	100				1000pF		22000pF					
		50							0.22μF				
		25							0.22μF	1.0μF			
		16							0.33μF	1.0μF			
GCM21	2.0X1.25 <0805>	100					6800pF			1.0μF			

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## Capacitors

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
GCM21	2.0X1.25 <0805>	50								0.22μF	1.0μF				
		35								0.68μF	4.7μF				
		25								0.22μF	4.7μF				
		16								1.0μF	10μF				
		10								2.2μF	10μF				
		6.3									10μF				
GCM31	3.2X1.6 <1206>	100							0.22μF	2.2μF					
		50							0.33μF	4.7μF					
		25								4.7μF	10μF				
		16								4.7μF	10μF				
		10								10μF	22μF				
		6.3									22μF				
GCM32	3.2X2.5 <1210>	100								4.7μF					
		50								4.7μF	10μF				
		35									10μF				
		25									10μF	22μF			
		16									10μF	22μF			
		10										22μF			
		6.3										47μF			

### High Effective Capacitance & High Ripple Current Chip Multilayer Ceramic Capacitors for Automotive




**GC3**









Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
G321	2.0X1.25 <0805>	250						10000pF	22000pF					
G331	3.2X1.6 <1206>	630						10000pF	15000pF					
		450						10000pF	47000pF					
G332	3.2X2.5 <1210>	250						33000pF	68000pF					
		630						22000pF	47000pF					
		450							68000pF	0.10μF				
G343	4.5X3.2 <1812>	250							0.10μF	0.15μF				
		630							68000pF					
		450								0.15μF				
G355	5.7X5.0 <2220>	250							0.22μF	0.33μF				
		630							0.10μF	0.22μF				
		450								0.22μF	0.47μF			
		250							0.47μF	1.0μF				

### Soft Termination Chip Multilayer Ceramic Capacitors for Automotive



**GCJ**

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GCJ18	1.6X0.8 <0603>	100						1000pF	0.10μF					
		50						1000pF	0.22μF					
		35							33000pF	68000pF				
		25						1000pF	1.0μF					

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Series	LxW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GCJ18	1.6X0.8 <0603>	16						10000pF		0.47μF				
		10							0.12μF	0.22μF				
		6.3								2.2μF	4.7μF			
GCJ21	2.0X1.25 <0805>	250					1000pF			22000pF				
		100				220pF					1.0μF			
		50							27000pF			1.0μF		
		35							0.12μF		0.47μF			
		25							0.10μF		2.2μF			
		16								0.27μF		4.7μF		
		10									2.2μF		10μF	
GCJ31	3.2X1.6 <1206>	1k					1000pF		10000pF					
		630					1000pF		22000pF					
		250						15000pF		0.10μF				
		100							0.22μF		1.0μF			
		50								0.47μF		4.7μF		
		35								0.56μF		1.0μF		
		25									2.2μF		10μF	
		16									3.3μF		10μF	
		10										6.8μF		22μF
GCJ32	3.2X2.5 <1210>	1k						15000pF		22000pF				
		630						6800pF		47000pF				
		250							68000pF		0.22μF			
		100								2.2μF		4.7μF		
		50									4.7μF		10μF	
		25									4.7μF		22μF	
		16									6.8μF		22μF	
GCJ43	4.5X3.2 <1812>	1k						33000pF		47000pF				
		630						33000pF		0.10μF				
		250								0.15μF		0.47μF		
GCJ55	5.7X5.0 <2220>	1k							68000pF		0.10μF			
		630								0.10μF		0.22μF		
		250									0.33μF		1.0μF	

### High Q Chip Multilayer Ceramic Capacitors for Automotive








GCQ



Series	LxW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GCQ15	1.0X0.5 <0402>	50	0.10pF				47pF							






## Capacitors

### MLSC Design Chip Multilayer Ceramic Capacitors for Automotive

 **GCD** 










Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GCD18	1.6X0.8 <0603>	100					1000pF		22000pF					
		50					1000pF		22000pF					
		25							27000pF		47000pF			
GCD21	2.0X1.25 <0805>	100					1000pF				0.10μF			
		50							15000pF		0.10μF			
		16										0.47μF		

### Soft Termination MLSC Design Chip Multilayer Ceramic Capacitors for Automotive

 **GCE** 











Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GCE18	1.6X0.8 <0603>	100					1000pF		22000pF					
		50					1000pF		22000pF					
		25							27000pF		47000pF			
GCE21	2.0X1.25 <0805>	100				220pF					0.10μF			
		50							15000pF		0.10μF			

### 3 Terminals Low ESL Chip Multilayer Ceramic Capacitors for Automotive

 **NFM** 





Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
NFM21	2.0X1.25 <0805>	50					220pF		22000pF					
		16										1.0μF		
		10								0.10μF		0.47μF		
NFM31	3.2X1.6 <1206>	100							10000pF					
		50							10000pF		0.10μF			

### Metal Terminal Type Multilayer Ceramic Capacitors for Automotive

 **KCM** 






Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
KCM55	6.1X5.3	100									4.7μF		22μF		
		63									4.7μF		22μF		
		50									4.7μF		33μF		
		35										10μF		47μF	
		25											15μF		100μF

## High Effective Capacitance & High Allowable Ripple Current Metal Terminal Type Multilayer Ceramic Capacitors for Automotive



KC3



Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
KC355	6.1X5.3	630								0.10μF	1.2μF			
		450								0.22μF	2.2μF			
		250								0.47μF	2.2μF			

## Safety Standard Certified Metal Terminal Type Multilayer Ceramic Capacitors for Automotive



KCA Type MF



Series	LXW (mm)	Rated Voltage (V)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
KCA55	6.1X5.3	AC250 (r.m.s.)					100pF	10000pF					

## Ni Plating + Pd Plating termination Conductive Glue Mounting Chip Multilayer Ceramic Capacitors for Automotive



GCB



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
GCB15	1.0X0.5 <0402>	100					1000pF	10000pF					
		50					1000pF	47000pF					
		25					1000pF	0.10μF					
		16					15000pF	0.10μF					
		10					3300pF	0.10μF					

## AgPd Termination Conductive Glue Mounting Chip Multilayer Ceramic Capacitors for Automotive

### Temperature Compensating Type



GCG



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
GCG15	1.0X0.5 <0402>	50					120pF	470pF					
GCG18	1.6X0.8 <0603>	50					10pF	2200pF					
GCG21	2.0X1.25 <0805>	50					1000pF	10000pF					

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## Capacitors

### High Dielectric Constant Type



GCG



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
GCG15	1.0X0.5 <0402>	50				220pF			4700pF						
		25					5600pF		10000pF						
		16						15000pF		0.10μF					
GCG18	1.6X0.8 <0603>	100				1000pF			0.10μF						
		50				220pF			0.22μF						
		25				1000pF			0.47μF						
		16						68000pF		1.0μF					
		10								2.2μF					
GCG21	2.0X1.25 <0805>	100						10000pF							
		50						0.10μF		1.0μF					
		35							0.68μF		1.0μF				
		25							0.22μF		1.0μF				
		16								0.33μF		4.7μF			
GCG31	3.2X1.6 <1206>	50							0.22μF		0.33μF				
		25							0.22μF		4.7μF				
		16								0.68μF		4.7μF			
		6.3												22μF	
GCG32	3.2X2.5 <1210>	50											10μF		
		35											10μF		
		25									3.3μF		10μF		
		16										6.8μF		10μF	
		6.3											47μF		

## Ceramic capacitors SMD type For Medical Devices

### Chip Multilayer Ceramic Capacitors for Implantable Medical Devices (Non Life Support Circuit)

#### Temperature Compensating Type



GCH



Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)												
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ		
GCH15	1.0X0.5 <0402>	50		1.0pF				1000pF							
GCH18	1.6X0.8 <0603>	100		1.0pF				1500pF							
		50		1.0pF				3300pF							
GCH21	2.0X1.25 <0805>	100				100pF		3300pF							
		50					1000pF		22000pF						
GCH31	3.2X1.6 <1206>	100						2200pF		10000pF					
		50						4700pF		47000pF					

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Temperature Compensating Type



GCH

Medical Device

Series	LXW (mm) <Size Code (inch)>	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
GCH15	1.0X0.5 <0402>	100				220pF	4700pF							
		50				220pF	4700pF		0.10μF					
		25					10000pF	47000pF						
		16						47000pF	0.22μF					
		10							0.10μF	1.0μF				
GCH18	1.6X0.8 <0603>	100				1000pF	22000pF							
		50				1000pF	0.22μF							
		25					47000pF	1.0μF						
		16						0.10μF	1.0μF					
		10								2.2μF				
GCH21	2.0X1.25 <0805>	100					10000pF	1.0μF						
		50					47000pF	1.0μF						
		35							1.0μF	4.7μF				
		25							0.22μF	4.7μF				
		16								1.0μF	4.7μF			
GCH31	3.2X1.6 <1206>	100						0.10μF	1.0μF					
		50							0.47μF	2.2μF				
		25								2.2μF	4.7μF			
		16									4.7μF	10μF		
		10										10μF		
GCH32	3.2X2.5 <1210>	50							1.0μF	4.7μF				
		25								4.7μF				
		16									10μF			
		10										22μF		
		6.3											47μF	

Ceramic capacitors lead type For General Purpose

Leaded MLCC for General Purpose

Temperature Compensating Type



RDE

General Deflecting crack Soldering crack Anti-noise

Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)										
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ
RDE5C	4.0X3.5	100		1.0pF	1500pF								
		50		1.0pF	3900pF								
	4.5X3.5	100				1800pF	3300pF						
		50					4700pF	22000pF					
	5.0X3.5	100		1.0pF	3300pF								
		50		1.0pF	22000pF								
	5.5X4.0	1k			10pF	1000pF							
		630			10pF	3300pF							

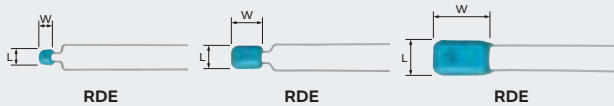
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# Capacitors

Series	LxW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
RDE5C	5.5X4.0	250			10pF									
		100												
		50												
RDE7U	4.5X3.5	250			100pF									
		1k			10pF									
	5.5X4.0	630			10pF									
		250												
	5.5X5.0	1k												
		630												
		250												
	7.5X5.5	1k												
		630												
	7.5X8.0	1k												
		630												
	7.7X13.0	1k												
630														

## High Dielectric Constant Type




- General
- Deflecting crack
- Soldering crack
- Anti-noise

Series	LxW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
RDEC7	4.0X3.5	25								0.22μF		1.0μF		
		50										1.0μF		
	5.0X3.5	25										2.2μF		
		50										1.0μF		
	5.5X4.0	50											4.7μF	
		25										4.7μF		10μF
	5.5X5.0	100										1.5μF		2.2μF
		50												10μF
		25												22μF
	5.5X7.5	100												4.7μF
		50												22μF
		25												47μF
RDED7	5.5X4.0	630							10000pF		15000pF			
		450							10000pF		47000pF			
		250							33000pF		68000pF			
	5.5X5.0	630							22000pF		47000pF			
		450							68000pF		0.10μF			
		250							0.10μF		0.15μF			
	7.5X5.5	630												68000pF
		450												0.15μF
		250												0.22μF
	7.5X7.5	450												0.33μF
		250												0.22μF
	7.5X8.0	450												0.56μF
250													0.47μF	
7.5X12.5	630												0.10μF	
	450												0.27μF	
7.7X13.0	450												1.0μF	
	250												1.2μF	
RDER7	4.0X3.5	100							220pF		22000pF			
		50							220pF		0.1μF			
		25									0.1μF			
4.5X3.5	500							1000pF		10000pF				

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Series	LXW (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
RDER7	4.5X3.5	250					1000pF		22000pF					
		100							33000pF		0.47μF			
		50								0.15μF		0.47μF		
	5.0X3.5	100				220pF						0.47μF		
		50				220pF						0.47μF		
		25									0.1μF			
	5.5X4.0	1k					470pF		10000pF					
		630						1000pF		22000pF				
		500								15000pF		47000pF		
		250									33000pF		0.10μF	
		100										0.15μF		1.0μF
		50											0.68μF	2.2μF
	5.5X5.0	1k							15000pF		22000pF			
		630								33000pF		47000pF		
		500									68000pF		0.10μF	
		250										0.15μF		0.22μF
		50												3.3μF
	7.5X5.5	1k								33000pF		47000pF		
		630									68000pF		0.10μF	
		500										0.15μF		0.22μF
250												0.33μF	0.47μF	
7.5X7.5	500											0.33μF	0.47μF	
	250												0.68μF	1.0μF
7.5X8.0	1k									68000pF		0.10μF		
	630										0.15μF		0.22μF	
7.7X12.5	500											0.68μF	1.0μF	
	250												2.2μF	
7.7X13.0	1k												0.22μF	
	630												0.47μF	

### High Voltage Lead Type Disc Ceramic Capacitors for General Purpose



**DHR**


General

Deflecting crack

Soldering crack

Series	D (mm)	Rated Voltage (Vdc)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
DHR4E	8.0 to 18.0	15k					100pF		1000pF					
	8.0 to 16.0	12k					100pF		1000pF					
	8.0 to 15.0	10k					100pF		1000pF					
DHRB3	8.0 to 18.0	15k					100pF		1000pF					
	8.0 to 16.0	12k					100pF		1000pF					
	8.0 to 15.0	10k					100pF		1000pF					

### Based on the Electrical Appliance and Material Safety Law of Japan Lead Type Disc Ceramic Capacitors for General Purpose



**DEJ**

General

Japanese Safety Law

Series	D (mm)	Rated Voltage (V)	Capacitance Range (F)											
			0.1p	1p	10p	100p	1000p	10000p	0.1μ	1μ	10μ	100μ	1000μ	
DEJE3	7.0 to 11.0	AC250 (r.m.s.)						1000pF		4700pF				
DEJF3	8.0 to 11.0	AC250 (r.m.s.)							4700pF		10000pF			