

# MULTILAYER CERAMIC CHIP CAPACITORS

Commercial grade

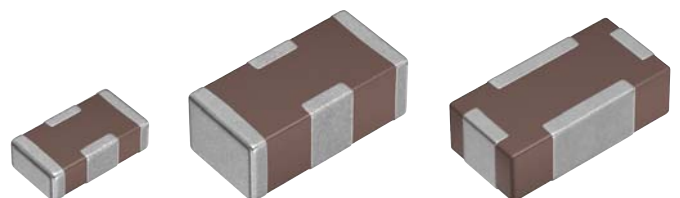
3-terminal feed-through type

## CKD series

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Type:	CKD710JB	1005 [0402 inch]*
	CKD610JB	1608 [0603 inch]*
	CKD61BJB	1608 [0603 inch]*

\* Dimensions Code JIS[EIA]



## REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

### SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

#### REMINDERS

1. The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please contact us.

- |  |  |
|--|--|
| (1) Aerospace/aviation equipment   | (8) Public information-processing equipment                                  |
| (2) Transportation equipment (cars, electric trains, ships, etc.)                    | (9) Military equipment   |
| (3) Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2) | (10) Electric heating apparatus, burning equipment                           |
| (4) Power-generation control equipment   | (11) Disaster prevention/crime prevention equipment                          |
| (5) Atomic energy-related equipment  | (12) Safety equipment  |
| (6) Seabed equipment   | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment   |  |

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

2. We may modify products or discontinue production of a product listed in this catalog without prior notification.
3. We provide "Delivery Specification" that explain precautions for the specifications and safety of each product listed in this catalog. We strongly recommend that you exchange these delivery specifications with customers that use one of these products.
4. If you plan to export a product listed in this catalog, keep in mind that it may be a restricted item according to the "Foreign Exchange and Foreign Trade Control Law". In such cases, it is necessary to acquire export permission in harmony with this law.
5. Any reproduction or transferring of the contents of this catalog is prohibited without prior permission from our company.
6. We are not responsible for problems that occur related to the intellectual property rights or other rights of our company or a third party when you use a product listed in this catalog. We do not grant license of these rights.
7. This catalog only applies to products purchased through our company or one of our company's official agencies. This catalog does not apply to products that are purchased through other third parties.

# Multilayer ceramic chip capacitors

Product compatible with RoHS directive  
Compatible with lead-free solders

Commercial grade

3-terminal feed-through type

## Overview of CKD series

### FEATURES

- Small capacitors featuring low ESL and high capacitance that realize low impedance characteristics.
- Effective for suppressing noise or voltage fluctuations in power circuits.
- For large current (Up to 2A) applications.

### APPLICATION

For power lines of high-speed, large-current circuits of telecommunication terminal devices including smartphones, audio-visual equipment, and information equipment.

### PART NUMBER CONSTRUCTION


CKD	710JB	0G	435	M	045	B	A								
Series name	L x W dimensions - GND terminal width		Rated voltage		Capacitance		Tolerance		Thickness			Packaging style			Internal code
	Code	mm	Code	V	Code	pF			Code	mm	Code	Reel	Pitch		
710JB	1.0x0.5	0G	4	105	1,000,000 (1.0μF)	M	±20%	0.30	0.3	A	ø178	4mm	A		
610JB	1.6x0.8	0J	6.3		4,300,000 (4.3μF)	S	+50%/-20%	0.45	0.45	B	ø178	2mm			
61BJB	1.6x0.8				10,000,000 (10μF)			0.50	0.5	D	ø330	4mm			
							0.60	0.6	E	ø330	2mm				

### PACKAGING STYLE AND SPECIFICATIONS

Type	Package quantity (piece/reel)		Individual weight (g)
	ø178 (mm)	ø330 (mm)	
CKD710JB	10,000	50,000	0.0008
CKD710JB0G435M	10,000	50,000	0.0015
CKD710JB0G755M	10,000	50,000	0.0027
CKD710JB0G106M	10,000	50,000	0.0029
CKD610JB	4,000	10,000	0.0038
CKD61BJB	4,000	10,000	0.0038

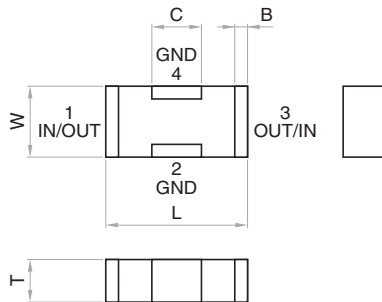
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- RoHS Directive Compliant Product: See the following for more details. <https://product.tdk.com/info/en/environment/rohs/index.html>
- Halogen-free: indicates that Cl content is less than 900ppm, Br content is less than 900ppm, and that the total Cl and Br content is less than 1500ppm.

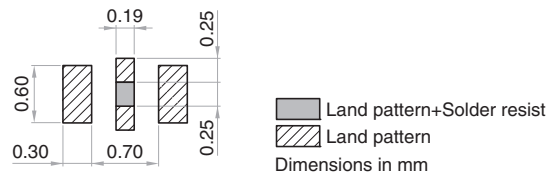
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Please note that the contents may change without any prior notice due to reasons such as upgrading.

CKD series **CKD710JB type**

## ■ SHAPE &amp; DIMENSIONS



## ■ RECOMMENDED LAND PATTERN



Part No.	L (mm)	W (mm)	T (mm)	B (mm)	C (mm)
<a href="#">CKD710JB0G106M050BC</a>	1.00±0.20	0.50±0.20	0.50±0.15	0.07min.	0.35±0.10
<a href="#">CKD710JB0G106M050EC</a>	1.00±0.20	0.50±0.20	0.50±0.15	0.07min.	0.35±0.10
<a href="#">CKD710JB0G755M050BC</a>	1.00±0.20	0.50±0.15	0.50±0.15	0.07min.	0.35±0.10
<a href="#">CKD710JB0G755M050EC</a>	1.00±0.20	0.50±0.15	0.50±0.15	0.07min.	0.35±0.10
<a href="#">CKD710JB0G435M045BA</a>	1.05±0.05	0.65±0.05	0.45±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0G435M045EA</a>	1.05±0.05	0.65±0.05	0.45±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0G105M030BA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0G105M030EA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0G105S030BA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0G105S030EA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0J474M030BA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0J474M030EA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0J474S030BA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10
<a href="#">CKD710JB0J474S030EA</a>	1.00±0.05	0.55±0.05	0.30±0.05	0.09min.	0.30±0.10

\* Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

Background red: The product which is planning to stop production

## ■ ELECTRICAL CHARACTERISTICS

## □ CHARACTERISTICS SPECIFICATION TABLE

Capacitance ( $\mu\text{F}$ )	Tolerance (%)	Rated voltage Edc (V)	Rated current Idc (A)	Operating temperature range ( $^{\circ}\text{C}$ )	Storage temperature range (After mount) ( $^{\circ}\text{C}$ )	Part No.*
10	±20	4	2	-55 to +85	-55 to +85	<a href="#">CKD710JB0G106M050BC</a>
10	±20	4	2	-55 to +85	-55 to +85	<a href="#">CKD710JB0G106M050EC</a>
7.5	±20	4	2	-55 to +85	-55 to +85	<a href="#">CKD710JB0G755M050BC</a>
7.5	±20	4	2	-55 to +85	-55 to +85	<a href="#">CKD710JB0G755M050EC</a>
4.3	±20	4	2	-55 to +85	-55 to +85	<a href="#">CKD710JB0G435M045BA</a>
4.3	±20	4	2	-55 to +85	-55 to +85	<a href="#">CKD710JB0G435M045EA</a>
1	±20	4	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0G105M030BA</a>
1	±20	4	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0G105M030EA</a>
1	+50,-20	4	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0G105S030BA</a>
1	+50,-20	4	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0G105S030EA</a>
0.47	±20	6.3	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0J474M030BA</a>
0.47	±20	6.3	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0J474M030EA</a>
0.47	+50,-20	6.3	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0J474S030BA</a>
0.47	+50,-20	6.3	2	-55 to +105	-55 to +105	<a href="#">CKD710JB0J474S030EA</a>

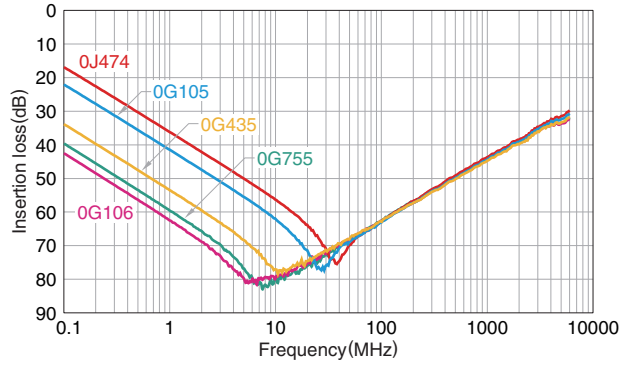
\* The part numbers are TDK's standard specification products.

Background red: The product which is planning to stop production

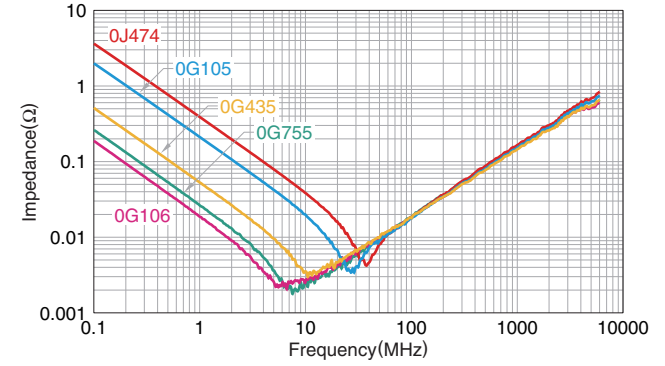
# CKD series CKD710JB type


## ELECTRICAL CHARACTERISTICS GRAPH

INSERTION LOSS VS. FREQUENCY CHARACTERISTICS



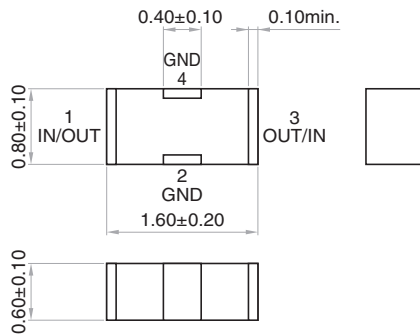
IMPEDANCE VS. FREQUENCY CHARACTERISTICS



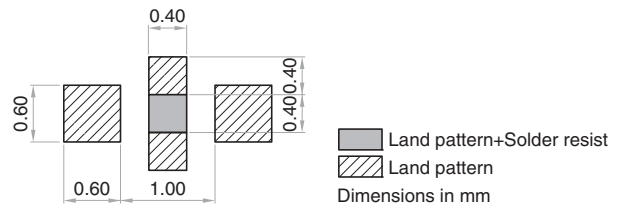
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# CKD series CKD610JB type

## SHAPE & DIMENSIONS



## RECOMMENDED LAND PATTERN



\* Make sure to connect the GND terminal of this product and the GND of the mounting circuit board by using through holes so that the distance between them is the shortest.

## ELECTRICAL CHARACTERISTICS

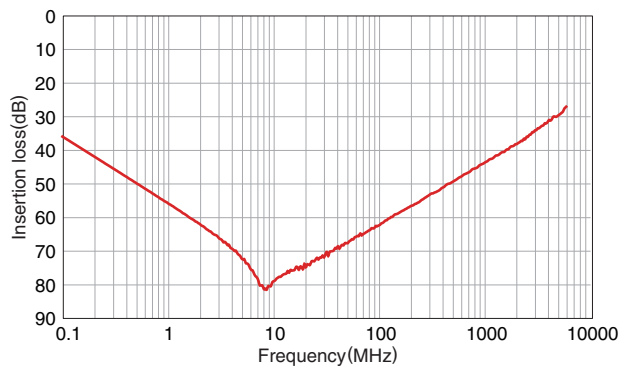
### CHARACTERISTICS SPECIFICATION TABLE

Capacitance	Tolerance	Rated voltage E <sub>dc</sub>	Rated current I <sub>dc</sub>	Operating temperature range	Storage temperature range (After mount)	Part No.*
( $\mu$ F)	(%)	(V)	(A)	( $^{\circ}$ C)	( $^{\circ}$ C)	
4.7	$\pm 20$	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD610JB0J475M060AA</a>
4.7	$\pm 20$	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD610JB0J475M060DA</a>
4.7	+50, -20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD610JB0J475S060AA</a>
4.7	+50, -20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD610JB0J475S060DA</a>

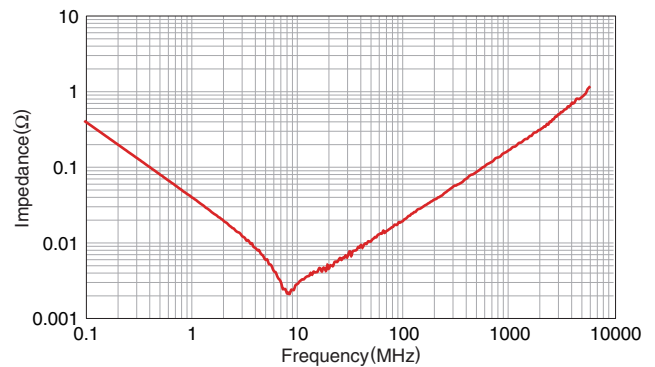
\* The part numbers are TDK's standard specification products.

## ELECTRICAL CHARACTERISTICS GRAPH

### INSERTION LOSS VS. FREQUENCY CHARACTERISTICS

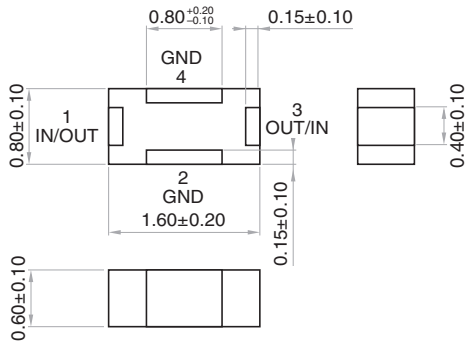


### IMPEDANCE VS. FREQUENCY CHARACTERISTICS

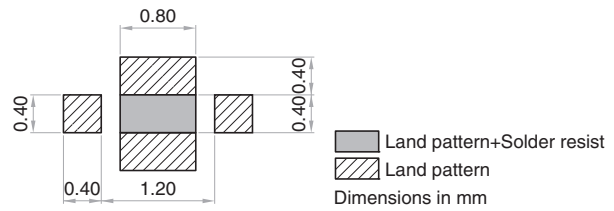


# CKD series CKD61BJB type

## SHAPE & DIMENSIONS



## RECOMMENDED LAND PATTERN



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## ELECTRICAL CHARACTERISTICS

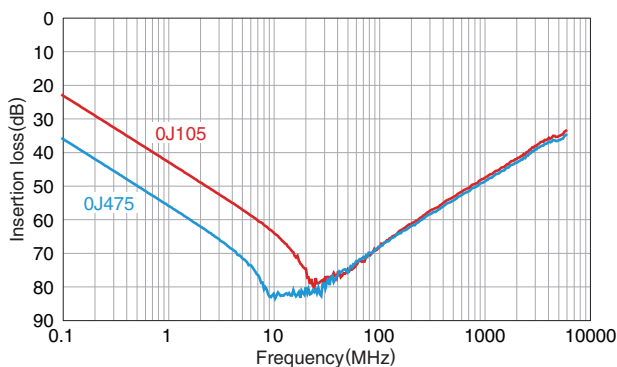
### CHARACTERISTICS SPECIFICATION TABLE

Capacitance ( $\mu\text{F}$ )	Tolerance (%)	Rated voltage Edc (V)	Rated current Idc (A)	Operating temperature range ( $^{\circ}\text{C}$ )	Storage temperature range (After mount) ( $^{\circ}\text{C}$ )	Part No.*
1	±20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J105M060AA</a>
1	±20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J105M060DA</a>
1	+50,-20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J105S060AA</a>
1	+50,-20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J105S060DA</a>
4.7	±20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J475M060AA</a>
4.7	±20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J475M060DA</a>
4.7	+50,-20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J475S060AA</a>
4.7	+50,-20	6.3	2	-55 to +85	-55 to +85	<a href="#">CKD61BJB0J475S060DA</a>

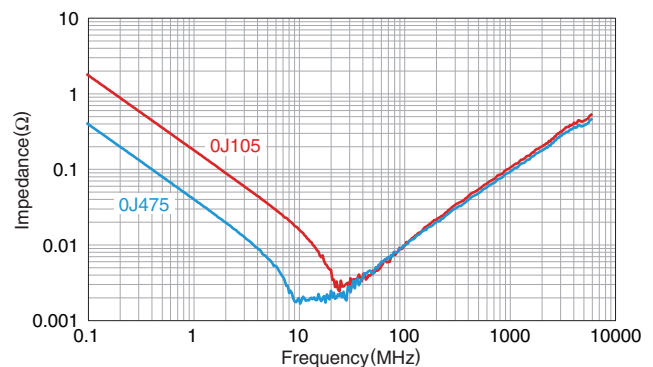
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## ELECTRICAL CHARACTERISTICS GRAPH

### INSERTION LOSS VS. FREQUENCY CHARACTERISTICS



### IMPEDANCE VS. FREQUENCY CHARACTERISTICS



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