

**GENERAL-PURPOSE DIP-TYPE MULTILAYER CERAMIC CAPACITORS [CD Series]**

**■Features**

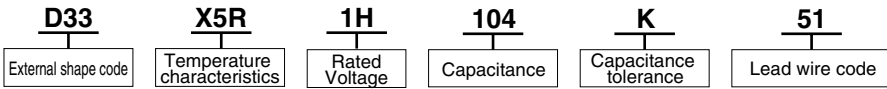
- Compact and large capacity
- Highly reliable mounting
- RoHS Compliant

**■Applications**

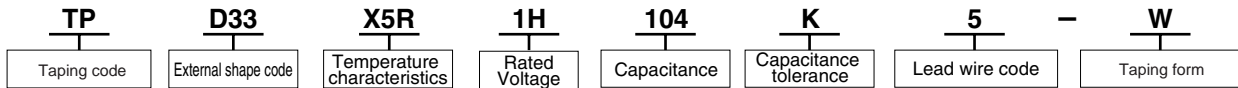
- For general electronic equipment



**■Part Number System (Bulk form)**



**■Part Number System (Taping form)**



**■Available Range**

Temperature characteristics	EIA symbol	Capacitance change	Temperature change	Capacitance Tolerance
X5R	X5R	± 15%	-55~+85	K ( ± 10% )
Y5U	Y5U( Z5U )	-20 ~ +55%	-25~+85	Z( -20%/+80% )

**■Capacitance map (X5R)**

Code	D33		D55		D47		D77	
	50Vdc (1H)	100Vdc (2A)	50Vdc (1H)	100Vdc (2A)	50Vdc (1H)	100Vdc (2A)	50Vdc (1H)	100Vdc (2A)
102 1nF	2.50	2.50						
222 2.2nF	2.50	2.50						
472 4.7nF	2.50	2.50						
103 10nF	2.50	2.50	2.50	2.50				
223 22nF	2.50		2.50	2.50				
473 47nF	2.50		2.50	2.50				
104 0.1 μF	2.50		2.50	2.50	2.50	2.50		
224 0.22 μF			2.50	3.00	2.50	2.50		
474 0.47 μF			3.00	3.00	2.50	2.50		
105 1 μF			3.00	4.00	2.50	3.00	2.50	2.50
225 2.2 μF			4.00		3.00	5.00	2.50	3.00
475 4.7 μF					4.00		3.00	5.00
106 10 μF							5.00	

**■Capacitance map (Y5U)**

Code	D33				D55				D47				D67				D77			
	16Vdc (1C)	25Vdc (1E)	50Vdc (1H)	100Vdc (2A)	16Vdc (1C)	25Vdc (1E)	50Vdc (1H)	100Vdc (2A)	16Vdc (1C)	25Vdc (1E)	50Vdc (1H)	100Vdc (2A)	16Vdc (1C)	25Vdc (1E)	50Vdc (1H)	100Vdc (2A)	16Vdc (1C)	25Vdc (1E)	50Vdc (1H)	100Vdc (2A)
102 1nF			2.50																	
222 2.2nF			2.50				2.50													
472 4.7nF			2.50				2.50													
103 10nF			2.50				2.50													
223 22nF			2.50				2.50													
473 47nF			2.50				2.50													
104 0.1 μF		2.50	2.50				2.50													
224 0.22 μF							3.10	3.50												
334 0.33 μF								3.50												
474 0.47 μF							3.10			2.50	3.50									
105 1 μF						2.50	3.50			2.50	2.50	3.50								
155 1.5 μF							3.50							3.40						
225 2.2 μF						3.50				2.50	3.50	3.50			3.50					5.00
335 3.3 μF										2.50		3.50			4.50					5.00
475 4.7 μF										3.50				3.10						5.00
106 10 μF										3.50										5.00
156 15 μF																				5.00
226 22 μF																				5.00

**GENERAL-PURPOSE DIP-TYPE MULTILAYER CERAMIC CAPACITORS [CD Series]**

**■ Dimensions**

External shape code	D33		D55		D47	D67	D77
Lead wire shape code	21	51	21	51	53	51	51
Example of outline drawing and indication							
Distance between lead wires: P	2.5±0.8		5.0±0.8		2.5±0.8		5.0±0.8

External shape code	Lead wire code	L max.	H max.	ℓ	d	Indication
D33	21	3.8	3.0	20±4	0.5	Capacitance code
	51	3.8	6.0	20±4	0.5	
D55	21	5.0	6.3	20±4	0.5	Capacitance code Rated voltage code
	51	6.0	7.0	20±4	0.5	
D47	53	8.0	7.5	20±4	0.5	Capacitance code Tolerance code Rated voltage code
D67	51	7.5	7.5	20±4	0.5	
D77	51	8.0	9.0	20±4	0.5	Lot sign

Unit : mm

Note1: The rated voltage is represented by the symbols shown below.

— — : 100V  
 — : 50V

Note2: The lot sign is different in indication depending on the kinds.

Refer to the product list (P30) for the thickness (T) of products.

**■ Product list (Bulk form)**

Temp.Char.X5R

Rated Voltage : 100Vdc

Part Number	Capacitance(μF)	Product height T (mm)
D33X5R2A102K [*]	0.001	2.50 max.
D33X5R2A222K [*]	0.0022	2.50 max.
D33X5R2A472K [*]	0.0047	2.50 max.
D33X5R2A103K [*]	0.01	2.50 max.
D55X5R2A103K [*]	0.01	2.50 max.
D55X5R2A223K [*]	0.022	2.50 max.
D55X5R2A473K [*]	0.047	2.50 max.
D55X5R2A104K [*]	0.1	2.50 max.
D55X5R2A224K [*]	0.22	3.00 max.
D55X5R2A474K [*]	0.47	3.00 max.
D55X5R2A105K [*]	1	4.00 max.
D47X5R2A104K53	0.1	2.50 max.
D47X5R2A224K53	0.22	2.50 max.
D47X5R2A474K53	0.47	2.50 max.
D47X5R2A105K53	1	3.00 max.
D47X5R2A225K53	2.2	5.00 max.
D77X5R2A105K51	1	2.50 max.
D77X5R2A225K51	2.2	3.00 max.
D77X5R2A475K51	4.7	5.00 max.

Rated Voltage : 50Vdc

Part Number	Capacitance(μF)	Product height T (mm)
D33X5R1H102K [*]	0.001	2.50 max.
D33X5R1H222K [*]	0.0022	2.50 max.
D33X5R1H472K [*]	0.0047	2.50 max.
D33X5R1H103K [*]	0.01	2.50 max.
D33X5R1H223K [*]	0.022	2.50 max.
D33X5R1H473K [*]	0.047	2.50 max.
D33X5R1H104K [*]	0.1	2.50 max.
D55X5R1H103K [*]	0.01	2.50 max.
D55X5R1H223K [*]	0.022	2.50 max.
D55X5R1H473K [*]	0.047	2.50 max.
D55X5R1H104K [*]	0.1	2.50 max.
D55X5R1H105K [*]	0.1	2.50 max.
D55X5R1H224K [*]	0.22	2.50 max.
D55X5R1H474K [*]	0.47	3.00 max.
D55X5R1H105K [*]	1	3.00 max.
D55X5R1H225K [*]	2.2	4.00 max.
D47X5R1H104K53	0.1	2.50 max.
D47X5R1H224K53	0.22	2.50 max.
D47X5R1H474K53	0.47	2.50 max.
D47X5R1H105K53	1	2.50 max.
D47X5R1H225K53	2.2	3.00 max.
D47X5R1H475K53	4.7	4.00 max.
D77X5R1H105K51	1	2.50 max.
D77X5R1H225K51	2.2	2.50 max.
D77X5R1H475K51	4.7	3.00 max.
D77X5R1H106K51	10	5.00 max.

Temp.Char.Y5U

Rated Voltage : 100Vdc

Part Number	Capacitance(μF)	Product height T (mm)
D55Y5U2A224Z51	0.22	3.50 max.
D55Y5U2A334Z51	0.33	3.50 max.
D47Y5U2A474Z53	0.47	3.50 max.
D47Y5U2A105Z53	1	3.50 max.
D77Y5U2A225Z51	2.2	5.00 max.
D77Y5U2A335Z51	3.3	5.00 max.

Rated Voltage : 50Vdc

Part Number	Capacitance(μF)	Product height T (mm)
D33Y5U1H102Z [*]	0.001	2.50 max.
D33Y5U1H222Z [*]	0.0022	2.50 max.
D33Y5U1H472Z [*]	0.0047	2.50 max.
D33Y5U1H103Z [*]	0.01	2.50 max.
D33Y5U1H223Z [*]	0.022	2.50 max.
D33Y5U1H473Z [*]	0.047	2.50 max.
D33Y5U1H104Z [*]	0.1	2.50 max.
D55Y5U1H222Z [*]	0.0022	2.50 max.
D55Y5U1H472Z [*]	0.0047	2.50 max.
D55Y5U1H103Z [*]	0.01	2.50 max.
D55Y5U1H223Z [*]	0.022	2.50 max.
D55Y5U1H473Z [*]	0.047	2.50 max.
D55Y5U1H104Z [*]	0.1	2.50 max.
D55Y5U1H224Z [*]	0.22	3.10 max.
D55Y5U1H474Z [*]	0.47	3.10 max.
D55Y5U1H105Z [*]	1	3.50 max.
D55Y5U1H155Z [*]	1.5	3.50 max.
D47Y5U1H474Z53	0.47	2.50 max.
D47Y5U1H105Z53	1	2.50 max.
D47Y5U1H225Z53	2.2	3.50 max.
D47Y5U1H335Z53	3.3	3.50 max.
D67Y5U1H105Z51	1	3.40 max.
D67Y5U1H155Z51	1.5	4.00 max.
D77Y5U1H475Z51	4.7	5.00 max.
D77Y5U1H106Z51	10	5.00 max.

Rated Voltage : 25Vdc

Part Number	Capacitance(μF)	Product height T (mm)
D33Y5U1E104Z [*]	0.1	2.50 max.
D55Y5U1E105Z [*]	1	2.50 max.
D55Y5U1E225Z [*]	2.2	3.50 max.
D47Y5U1E105Z53	1	2.50 max.
D47Y5U1E225Z53	2.2	3.50 max.
D47Y5U1E475Z53	4.7	3.50 max.
D47Y5U1E106Z53	10	3.50 max.
D67Y5U1E225Z51	2.2	3.50 max.
D67Y5U1E335Z51	3.3	4.50 max.
D77Y5U1E156Z51	15	5.00 max.
D77Y5U1E226Z51	22	5.00 max.

Rated Voltage : 16Vdc

Part Number	Capacitance(μF)	Product height T (mm)
D47Y5U1C225Z53	2.2	2.50 max.
D47Y5U1C335Z53	3.3	2.50 max.
D67Y5U1C475Z51	4.7	3.10 max.

\* Specify the lead wire shape code 21 or 51 for [\*].