

INTRODUCTION

The Ceramic Capacitor Series is our broadest and most comprehensive line of axial, and radial leaded capacitors. Maida is capable of supplying CLASS I, CLASS II, and CLASS III capacitors to customer specific capacitance and DC working voltage requirements. These requirements can be met utilizing single ceramic element construction to quad ceramic element construction. Capacitor stacks utilizing multiple leads are also available.

Maida also offers Safety Capacitors with X1, X2, Y1, Y2, X1/Y1, and X2/Y2 approvals.

Maida is ITAR registered and can supply custom designs for customers requiring ITAR compliant components from our corporate headquarters located in Hampton, VA.

STYLE DESIGNATION

The Maida Style Number is the typical means to identify our components when ordered. The style number identifies several parameters that are important for the characteristics of the device. An alternative ordering method, if known, is by our Item Number. The Item Number is a unique designation for each capacitor design, whereas numerous capacitor designs may be made with the same Maida Style Number.

STANDARD MARKING

Minimum marking shall consist of an abbreviated style designation and, when space is available, the manufacturer's initials or company logo.

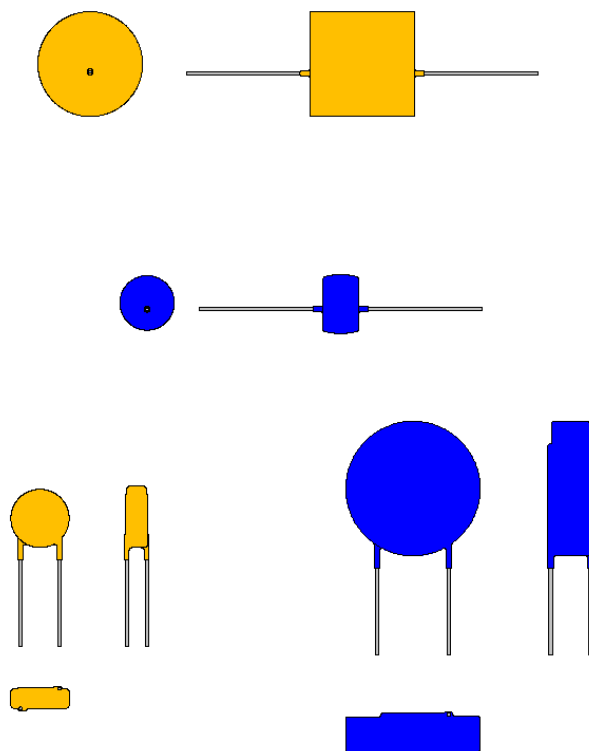
For example:

MDC
1000M
Z5U
10KV

Where:

MDC - Company Initials
1000 - Capacitance (pF)
M - Capacitance Tolerance
Z5U - Temperature Coefficient
10KV - Working Voltage (DC)

A manufacturing date code and/or special markings are available upon request.



CERAMIC CAPACITOR SERIES



CLASS I – Temperature Compensating

Maida offers standard Class I temperature compensating, and extended range temperature compensating capacitors in accordance with the EIA standard. Class I are suited for resonant circuit applications, or other applications where high Q and predictable stability of capacitance characteristics are required. Class I have negligible dependence upon voltage, frequency, and time.

Common temperature coefficients offered by Maida include C0G, C0H, NP0, and P3K. Other characteristics, as defined below, are available:

First Letter (Sig. Fig.)	Number (Mult.)	Last Letter (Tolerance)
C = 0.0	0 = -1	G = 30
M = 1.0	1 = -10	H = 60
P = 1.5	2 = -100	J = 120
R = 2.2	3 = -1000	K = 250
S = 3.3	4 = -10000	L = 500
T = 4.7	5 = 1	M = 1000
W = 5.6	6 = 10	N = 2500
U = 7.5	7 = 100	

Typical Designs:

Maida Style	Temperature Coefficient (TC)	Capacitance (pF)	Working Voltage (kVDC)	Withstand Voltage (kVDC)
PDCC0G100J1KV	C0G	10	1000	2000
PDC54C0G470M15KV	C0G	47	15000	30000
PDC54C0H181J2KV	C0H	180	2000	4000
PDC54C0H220K6KV	C0H	22	6000	7200
PDC54C0H181K7KV	C0H	180	7000	14000
PDC54C0H211K7KV	C0H	210	7000	14000
PDC54C0H470K8KV	C0H	47	8000	16000
PDC54C0H910K8KV	C0H	91	8000	16000
PDC10COJ4R0C1.5KV	C0J	4	1500	3300
PDC44U2J200M1KV	N750	20	1000	2000
PDCC0H809C1.5KV	NP0	8	1500	3000
PDC7C0H509D3KV	NP0	5	3000	6000
PDC44P3K100J	P3K	10	500	1500
PDC54P3K500K5KV	P3K	50	5000	10000
PDC54P3K101K5KV	P3K	100	5000	10000
PDC54P3K201K5KV	P3K	200	5000	10000
PDC54P3K160K25KV	P3K	16	25000	30000

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CLASS II – Semi-Stable

Maida offers standard Class II semi-stable designs in accordance with the EIA standard. Class II utilize high dielectric constant material, offering non-linear temperature characteristics, significant dependence on voltage and frequency, and predictable capacitance decay over time. These capacitors are suited for bypass, coupling, and filtering applications where stability of capacitance characteristics are not of significant importance.

Common temperature coefficients offered by Maida include X5P, X5R, and X7R. Other characteristics, as defined below, are available:

First Letter	Number	Last Letter
X = -55°C	5 = +85°C	F = ±7.5%
Y = -30°C	7 = +125°C	P = ±10%
Z = +10°C		R = ±15%

Typical Designs:

Maida Style	Temperature Coefficient (TC)	Capacitance (pF)	Working Voltage (kVDC)	Withstand Voltage (kVDC)
PDC54X5F101K9KV	X5F	100	9000	18000
PDC23X5P471K1KV	X5P	470	1000	2000
PDC10X5P222M1KV	X5P	2200	1000	2000
PDC54X5P152M8KV	X5P	1500	8000	16000
PDC54X5P401K15KV	X5P	400	15000	30000
PDC54X5P451K15KV	X5P	450	15000	30000
PDC54X5P501K15KV	X5P	500	15000	30000
PDC54X5P102K15KV	X5P	1000	15000	30000
PDC54X5P152K15KV	X5P	1500	15000	30000
PDCX5R103M1KV	X5R	10000	1000	2000
PDC54X5R202M3KV	X5R	2000	3000	6000
PDC54X5R222K3KV	X5R	2200	3000	6000
PDC44X5R502M3KV	X5R	5000	3000	3600
PDC54X5R501M4KV	X5R	500	4000	8000
PDC54X5R332M4KV	X5R	3300	4000	8000
PDC54X5R152M6KV	X5R	1500	6000	12000
PDC54X5R202M6KV	X5R	2000	6000	12000
PDC54X5R222M6KV	X5R	2200	6000	12000
PDC54X5R101M10KV	X5R	100	10000	20000
PDC54X5R501M10KV	X5R	500	10000	12000
PDC54X5R102M10KV	X5R	1000	10000	20000
PDC54X5R122K10KV	X5R	1200	10000	20000
PDC54X5R202M10KV	X5R	2000	10000	20000
PDC54X5R222M10KV	X5R	2200	10000	20000
PDC54X5R470K12KV	X5R	47	12000	24000
PDC54X5R820K12KV	X5R	82	12000	24000

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Maida Style	Temperature Coefficient (TC)	Capacitance (pF)	Working Voltage (kVDC)	Withstand Voltage (kVDC)
PDC54X5R111K12KV	X5R	110	12000	24000
PDC54X5R911Z12KV	X5R	910	12000	14400
PDC54X5R222M12KV	X5R	2200	12000	24000
PDC54X5R431K15KV	X5R	430	15000	30000
PDC9X5R471M15KV	X5R	470	15000	22500
PDC43X5R501M15KV	X5R	500	15000	30000
PDC54X5R501M15KV	X5R	500	15000	30000
PDC54X5R102M15KV	X5R	1000	15000	30000
PDC9X5R102K15KV	X5R	1000	15000	30000
PDC9X5R152M15KV	X5R	1500	15000	30000
PDC54X5R271K18KV	X5R	270	18000	36000
PDC9X5R101K20KV	X5R	100	20000	30000
PDC9X5R151K20KV	X5R	150	20000	30000
PDC54X5R151K20KV	X5R	150	20000	30000
PDC54X5R501M20KV	X5R	500	20000	30000
PDC54X5R511M20KV	X5R	510	20000	30000
PDC54X5R151M25KV	X5R	150	25000	37500
PDC54X5S152M12KV	X5S	1500	12000	24000
PDCX7R221K2KV	X7R	220	2000	4000
PDCX7R471K2KV	X7R	470	2000	4000
PDC54X7R102K2KV	X7R	1000	2000	4000
PDC11X7R182K2KV	X7R	1800	2000	4000
PDC54X7R250M3KV	X7R	25	3000	6000
PDC54X7R162M3KV	X7R	1600	3000	6000
PDC54X7R682K3KV	X7R	6800	3000	6000
PDC54X7R102M7.5KV	X7R	1000	7500	15000
PDC54X7R220K15KV	X7R	22	15000	30000
PDC54X7R101M15KV	X7R	100	15000	30000
PDC9X7R102M30KV	X7R	1000	30000	45000

CLASS III – General Purpose High-K

Maida offers standard Class III general purpose high-K designs in accordance with the EIA standard. Class III are comparable to Class II except that it is restricted to designs having capacitance values which vary more than 15% with changes in temperature. These capacitors are suited for bypass, coupling, and other uses where dielectric losses, high insulation resistance, and capacitance stability are not of significant importance.

Common temperature coefficients offered by Maida include X5P, X5R, and X7R. Other characteristics, as defined below, are available:

First Letter	Number	Last Letter
X = -55°C	5 = +85°C	S = ±22%
Y = -30°C		T = +22%, -33%
Z = +10°C		U = +22%, -56%

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Typical Designs:

Maida Style	Temperature Coefficient (TC)	Capacitance (pF)	Working Voltage (kVDC)	Withstand Voltage (kVDC)
PDC54Y5P152M6KV	Y5P	1500	6000	12000
PDC54Y5P151M10KV	Y5P	150	10000	20000
PDC54Y5P202M10KV	Y5P	2000	10000	20000
PDCP6Y5S202+20-10%10KV	Y5S	2000	10000	20000
PDC54Y5U152M8KV	Y5U	1500	8000	15000
PDC54Y5U102+20,-15%9KV	Y5U	1000	9000	15000
PDC44Z5F102K1KV	Z5F	1000	1000	2000
PDC9Z5F221M10KV	Z5F	220	10000	20000
PDC10Z5P102K2KV	Z5P	1000	2000	4000
PDC54Z5P151K15KV	Z5P	150	15000	30000
PDC54Z5P251K15KV	Z5P	250	15000	30000
PDCZ5U681M100V	Z5U	680	100	250
PDC10Z5U102M	Z5U	1000	500	1650
PDCZ5U502M	Z5U	5000	500	1650
PDCZ5U103Z	Z5U	10000	500	1500
PDC44Z5U472M1KV	Z5U	4700	1000	2000
PDCZ5U103Z1KV	Z5U	10000	1000	2000
PDC54Z5U332M2KV	Z5U	3300	2000	4000
PDC54Z5U472M2KV	Z5U	4700	2000	4000
PDCZ5U243M2KV	Z5U	24000	2000	4000
PDC54Z5U333M2KV	Z5U	33000	2000	4000
PDC44Z5U471M3KV	Z5U	470	3000	3600
PDC44Z5U472M3KV	Z5U	4700	3000	6000
PDC54Z5U223M3KV	Z5U	22000	3000	6000
PDC54Z5U472M4KV	Z5U	4700	4000	8000
PDC54Z5U102M8KV	Z5U	1000	8000	16000
PDC54Z5U362M8KV	Z5U	3600	8000	16000
PDC54Z5U123M8KV	Z5U	12000	8000	16000
PDC54Z5U102M10KV	Z5U	1000	10000	20000
PDC54Z5U392M10KV	Z5U	3900	10000	20000
PDC54Z5U102M12KV	Z5U	1000	12000	24000
PDC54Z5U822M12KV	Z5U	8200	12000	14400
PDC54Z5U152M15KV	Z5U	1500	15000	30000
PDC54Z5U202M15KV	Z5U	2000	15000	18000
PDC54Z5U562M18KV	Z5U	5600	18000	21600



SAFETY CAPACITORS

Maida offers safety agency (UL, CSA, VDE, etc.) recognized safety capacitors for use in Across-The-Line, Antenna Coupling, and Line-Bypass (or Line-To-Ground) applications.

X and Y capacitors are typically used to minimize EMI/RFI signals and are directly connected to the AC power line. X capacitors are used to connect across the line (connected between line and neutral). Y capacitors are used to connect in a line-bypass (connected between line and ground). Both X and Y are designed such that if a failure occurs, they prevent electrical shock hazards.

X2 and Y2 capacitors are the most commonly used capacitors in residential applications. X1 and Y1 capacitors are typically used in commercial and industrial applications.

Operating Temperature		-25°C to +85°C			
Testing Parameters		25°C			
Dissipation Factor		≤ 2.5%			
Subclass	X1, Y1, Y2	Subclass	Y2	X1/Y2	X1/Y1
Rated Voltage	250VAC, 400VAC				
Voltage Withstand	1500VAC, 2500VAC, 4000VAC	Rated Voltage (VAC)	250	X1: 400 Y2: 250	X1: 400 Y1: 250
		Withstand (VAC)	1500	2500	4000
Insulation Resistance (IR)		IR > 10000Mohm @ 500VDC			
Temperature Coefficient		Y5P, Y5U, Z5U, Y5V			
Encapsulant Rating		UL 94V-0			