

CERAMIC CAPACITORS

How To Order

J 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

SERIES

1-AC Y1
2-AC Y2
3-CLASS I
4-CLASS II
5-CLASS III

CAPACITANCE

0R5~0.5PF
010~1PF
100~10PF
101~100PF
102~1000PF
102~1nF
102~0.001 μ F
103~10000PF
103~10nF
103~0.01 μ F
104~100 n F
105~1 μ F
106~10 μ F

TOLERANCE

C=±0.25PF
D=±0.5PF
G=±2%
J=±5%
K=10%
M=±20%
Z=+80-20%

FOOT TYPE

A-HIGH SEATED
S-STRAIGHT LEAD
G-OUTWARD KINK
I-INSIDE KINK
ASSEMBLY
K-UP/DOWN KINK
AL-AXIAL
(FOR HIGH VOLTAGE)
≥40KVDC

WORKING VOLTAGE

1C=16VDC
1E=25VDC
1H=50VDC
1J=63VDC
2A=100VDC
2E=250VDC
2G=400VDC
2H=500VDC
3A=1000VDC
1KVDC
3D=2000VDC
2KVDC
3E=2500VDC
2.5KVDC
3F=3000VDC
3KVDC
3G=4000VDC
4KVDC
3H=5000VDC
5KVDC
3J=6300VDC
(6000VDC)
6KVDC
3K=8000VDC
8KVDC
4A=10000VDC
10KVDC
4B=12000VDC
12KVDC
4C=15000VDC
15KVDC
4P=18KVDC
4D=20000VDC
20KVDC
4E=25KVDC
4F=30KVDC
4V=35KVDC
4G=40KVDC
4W=45KVDC
4H=50KVDC
4J=63KVDC
4K=80KVDC
5A=100KVDC
5B=125KVDC
5C=160KVDC
5D=200KVDC
5E=250KVDC

COATING

D:DUREZ
E:EPOXY BLUE
Y:EPOXY
YELLOW

FOOT LENGTH

3:3 mm ±1mm
4:4 mm ±1mm
5:5 mm ±1mm
7:7 mm ±1mm
8:8 mm ±1mm
0:10mm ±1mm
M:17mm ±2mm
L:25mm ±2mm
S:35mm ±2mm
X:50mm ±2mm
T:Taping ±2mm

PITCH±0.8mm

3:2.5mm
5:5.0mm
6:6.35mm
7:7.5mm
9:9.5(10) mm
1:12.5mm
4:15mm
2:20mm
H:OTHER(AXIAL OR SPACIAL TYPE)

TEMPERATURE CHARACTERISTIC

NPO — NPO I
N75 — N750 I
SLO — SL I
2SL — 2SL I
X7R — X7R II
Y5E — Y5E II
Y5P — Y5P II III
Y5R — Y5R II
BNH — BN II
Y5T — Y5T II
Y5U — Y5U II III
Y5V — Y5V II III
Z5U — Z5U II
Z5V — Z5V II

Y1/Y2 Series 跨接抑制突波電容器 (X1Y1, X1Y2)

Applications

For use in circuit where alternation, pulsating, intermittent and steady high voltage exist.

Introduction

These Ceramic Disc Capacitors are specifically designed for AC applications and meet the safety requirements of various safety standards agencies. These capacitors are ideal for across the line and line by-pass applications

Features

- Ideal for across the line applications
- Compact size
- Cost effective product
- Safety standards recognized for AC applications

General Specifications

Operating temperature range	-25°C to 85°C, -25°C to 125°C
Capacitance range	1pF to 10000pF
Capacitance tolerance	D=±0.5PF, K=±10%, M=±20%
Rated voltage	400VAC. Please refer to table for approval file number less than 50mA X1:400VAC Y1:250V, 400VAC Y2:250V, 300VAC
Temperature coefficient	±15% for B (X7R), ±10% for B (Y5P), +20 to -55% for E (Y5U) +30 to -80% for F (Y5V)
Dissipation factor (tan δ)	X7R: 2.5% max. at 25°C and 1KHz, 1 ± 0.2 Vrms. Y5P: 2.5% max. at 25°C and 1KHz, 1 ± 0.2 Vrms. Y5U: 5.0% max. at 25°C and 1KHz, 1 ± 0.2 Vrms. Y5V: 5.0% max. at 25°C and 1KHz, 1 ± 0.2 Vrms.
Insulation resistance at 25°C	10000MΩ at 500VDC for 1 minute.
Dielectric strength	Y1: 4000 VAC/8000VDC for 60 seconds-AC 400V X1: 2300VAC/4000 VDC for 60 seconds-AC 400V Y2: 2600 VAC/5000VDC for 60 seconds-AC 400V

Capacitance and Dimensions

When ordering safety standard recognized ceramic capacitors please use the type numbers as noted above

Rated 400VAC (X1Y1)

TYPE NUMBER	O.T.	T.C.	CAP.	TOL.	DIMENSION(mm)				
					D max	F	T max		
ZD1R00Y5P Y1	-25°C +125°C	Y5P	1PF	D ±0.5PF	7	10±0.8	8		
ZD1R50Y5P Y1			2		10±0.8	8			
ZD2R20Y5P Y1			3		10±0.8	8			
ZD3R30Y5P Y1			4		10±0.8	8			
ZD4R70Y5P Y1			5		10±0.8	8			
ZD5R80Y5P Y1			6		10±0.8	8			
ZD6R80Y5P Y1			7		10±0.8	8			
ZD8R20Y5P Y1			8		10±0.8	8			
ZD100KY5P Y1			10		10±0.8	8			
ZD120KY5P Y1			12		10±0.8	8			
ZD150KY5P Y1			15		10±0.8	8			
ZD180KY5P Y1			18		10±0.8	8			
ZD220KY5P Y1			22		10±0.8	8			
ZD270KY5P Y1			27		10±0.8	8			
ZD330KY5P Y1			33		10±0.8	8			
ZD390KY5P Y1			39		10±0.8	8			
ZD470KY5P Y1			47		10±0.8	8			
ZD560KY5P Y1			56		10±0.8	8			
ZD680KY5P Y1			68		10±0.8	8			
ZD820KY5P Y1			82		10±0.8	8			
ZD101KY5P Y1			100PF		K ±10%	7	10±0.8	8	
ZD151KY5P Y1			150PF			7	10±0.8	8	
ZD221KY5P Y1			220PF			7	10±0.8	8	
ZD331KY5P Y1			330PF			8	10±0.8	8	
ZD471KY5P Y1			470PF			10	10±0.8	8	
ZD561KY5P Y1			560PF			10	10±0.8	8	
ZD681KY5P Y1			680PF			12	10±0.8	8	
ZD821KY5P Y1			820PF			13	10±0.8	8	
ZD102KY5P Y1			1000PF			15	10±0.8	8	
ZD152KY5P Y1			1500PF			16	10±0.8	8	
ZD222KY5P Y1			2200PF		18	10±0.8	8		
ZD332KY5P Y1			3300PF		20	10±0.8	8		
ZD392KY5P Y1			3900PF		20	10±0.8	8		
ZD472KY5P Y1			4700PF		22	10±0.8	8		
ZD562KY5P Y1			5600PF		22	10±0.8	8		
ZD682KY5P Y1			6800PF		18	10±0.8	8		
ZD822KY5P Y1			8200PF		20	10±0.8	8		
ZD103KY5P Y1			10000PF		22	10±0.8	8		
ZD681MY5V Y1			+20%-55% (Y5U)		K M	680PF	7	10±0.8	8
ZD821MY5V Y1						820PF	8	10±0.8	8
ZD102MY5V Y1	1000PF	8		10±0.8		8			
ZD152MY5V Y1	1500PF	10		10±0.8		8			
ZD222MY5V Y1	2200PF	12		10±0.8		8			
ZD332MY5V Y1	3300PF	15		10±0.8		8			
ZD392MY5V Y1	3900PF	16		10±0.8		8			
ZD472MY5V Y1	4700PF	18		10±0.8		8			
ZD562MY5V Y1	5600PF	18		10±0.8		8			
ZD682MY5V Y1	6800PF	18		10±0.8		8			
ZD822MY5V Y1	8200PF	20	10±0.8	8					
ZD103MY5V Y1	10000PF	22	10±0.8	8					
ZD102MY5V Y1	-25°C +85°C	+30%-80% (Y5V)	M	±20%	7	10±0.8	8		
ZD152MY5V Y1					10	10±0.8	8		
ZD222MY5V Y1					12	10±0.8	8		
ZD332MY5V Y1					15	10±0.8	8		
ZD392MY5V Y1					16	10±0.8	8		
ZD472MY5V Y1					18	10±0.8	8		
ZD562MY5V Y1					18	10±0.8	8		
ZD682MY5V Y1					18	10±0.8	8		
ZD822MY5V Y1					20	10±0.8	8		
ZD103MY5V Y1					20	10±0.8	8		

HOW TO ORDER

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

SERIES

X2M
X1M
Y2M
MEF(MPE)
MSM
USM
MSC
MEC
MET
MEA
MPP
MSP
MPC
PPN
PPS
AMC
MPT
MPA
AMP
PEI
PPI
PSA
PSR
XYP
XYL
PXR
SWR
WXR
MPL

TOLERANCE

F=±1%
G=±2%
H=±3.5%
J=±5%
K=±10%
M=±20%

PITCH

P:3.5mm
Q:4.0mm
R:4.5mm
A:5.0mm
V:6.0mm
B:7.5mm
C:10mm
D:15mm
E:20mm
N:22.5mm
F:27.5mm
G:32.5mm
H:37.5mm
I:42.5mm
U:47.5mm
S:52.5mm
T:7.5→5mm
J:10→5mm
K:10→7.5mm
L:15→7.5mm
M:15→10mm
W:5 KINK 5mm
Z:7.5 KINK 7.5mm
Y:10 KINK 10mm
O:15 KINK 15mm
X:OTHER

N ~ RoHS

WIRE LENGTH

20:20mm
25:25mm
30:30mm
35:35mm
40:40mm
45:45mm
50:50mm
55:55mm
60:60mm
70:70mm
75:75mm
80:80mm
85:85mm
90:90mm
95:95mm
00:100mm
01:110mm
02:120mm
03:130mm
04:140mm
05:150mm
06:160mm
07:170mm
08:180mm
10:200mm

WORKING VOLTAGES

1H=50VDC
1J=63VDC
2A=100VDC
2B=125VDC/AC
2C=160VDC
2E=250VDC/AC
2F=300VDC/AC
2G=400VDC/AC
2J=630VDC/AC
3A=1000VDC
3B=1200VDC
3C=1600VDC
3D=2000VDC
3E=2500VDC
3F=3000VDC
3G=4000VDC
3H=5000VDC
3J=6300VDC

CAPACITANCE

101~100PF
102~0.001 μ F
~1nF
103~0.01 μ F
~10nF
104~0.1 μ F
~100nF
105~1 μ F
106~10 μ F
107~100 μ F

FOOT TYPE

S-STRAIGHTLEAD
O-OUTWARD KINK
I-INSIDE KINK

FOOT LENGTH

3:3±0.5mm
4:4±0.5mm
5:5±0.5mm
6:6±0.5mm
7:7±0.5mm
8:8±0.5mm
0:10±0.5mm
Y:20±2mm
M:25±2mm
N:50±2mm
L:30±2mm
S:35±2mm
E:40±2mm
U:45±2mm
W:WIRE
X:OTHER
T:TAPE(AMMO)
R:TAPE(REEL)

WIRE NUMBER

24:24AWG
22:22AWG
20:20AWG
18:18AWG
16:16AWG
14:14AWG
12:12AWG