

K2Y Ceramic Disc Capacitor

Y2 / X1 Class 250Vac (EN 132400) - (440Vac pending)

SAFETY DEVICE

■ **Description**

- The capacitors consist of a ceramic disc both sides of which are silver plated. Connection leads are made of tinned copper having a diameter of 0.6mm.
- The capacitors are supplied with pitch 5mm (flanged leads only) and pitch 7.5mm (straight leads only).
- The standard tolerance on capacitance is $\pm 10\%$ for Y5P material and $\pm 20\%$ for Y5U material.
- Encapsulation is made of flammable resistant epoxy resin in accordance with UL94 V0.

■ **Applications**

- Across-the-line
- Line by-pass
- Antenna coupling
- Interference suppression

■ **Pitch 5mm 250Vac, flanged, max thickness T=4.5mm, L>13mm, capacitance and mechanical dimensions**

Class Y2 Y5P					
C (pF)	Tol %	D (max) (mm)	F (± 0.5) (mm)	SH (mm)	Part Number
100	± 10	8	5	11	K2Y101KQ31CG -- A
150	± 10	8	5	11	K2Y151KQ31CG -- A
220	± 10	8	5	11	K2Y221KQ31CG -- A
330	± 10	8	5	11	K2Y331KQ31CG -- A
470	± 10	8	5	11	K2Y471KQ31CG -- A
Class Y2 Y5U					
C (pF)	Tol %	D (max) (mm)	F (± 0.5) (mm)	SH (mm)	Part Number
680	± 20	9	5	12	K2Y681MQ35CA -- A
1000	± 20	9	5	12	K2Y102MQ35CA -- A
1500	± 20	9	5	12	K2Y152MQ35CA -- A
2200	± 20	11	5	14	K2Y222MQ43CA -- A

All dimensions are in mm

Mechanical version and packaging (see table 2)

AA = loose, std leads

CK = reel

■ **Pitch 7.5mm 250Vac, straight leads, max thickness T=4.5mm, L=5 \pm 1mm, capacitance and mechanical dimensions**

Class Y2 Y5P					
C (pF)	Tol %	D (max) (mm)	F (± 1) (mm)	SH (mm)	Part Number
100	± 10	8	7.5	12	K2Y101KQ31DG -- A
150	± 10	8	7.5	12	K2Y151KQ31DG -- A
220	± 10	8	7.5	12	K2Y221KQ31DG -- A
330	± 10	8	7.5	12	K2Y331KQ31DG -- A
470	± 10	8	7.5	12	K2Y471KQ31DG -- A
Class Y2 Y5U					
C (pF)	Tol %	D (max) (mm)	F (± 1) (mm)	SH (mm)	Part Number
680	± 20	9	7.5	13	K2Y681MQ35DA -- A
1000	± 20	9	7.5	13	K2Y102MQ35DA -- A
1500	± 20	9	7.5	13	K2Y152MQ35DA -- A
2200	± 20	11	7.5	15	K2Y222MQ35DA -- A

All dimensions are in mm

Mechanical version and packaging (see table 2)

AA = loose, std leads

CK = reel

■ **ELECTRICAL CHARACTERISTICS**

The capacitors meet the essential requirements of IEC 60384-14, 2nd edition. Unless stated otherwise all electrical values apply at an ambient temperature of 20°C $\pm 3^\circ\text{C}$, at normal atmospheric conditions.

Description	Value
Capacitance range at 1kHz, 1V (RMS)	100 to 2200 pF
Capacitance tolerance	$\pm 10\%$; $\pm 20\%$
Rated AC voltage	250V; 50/60Hz
Dielectric strength	2500V (AC) for 60 s
Test voltage of coating (AC)	2000V for 60 s
Component test voltage of coating (AC)	2500V for 2 s
AC test voltage	2500V (AC)
Insulation resistance at 500V (DC)	$\geq 10000\text{M}\Omega$
Temperature coefficients on capacitance	100pF to 470pF (Y5P); 680pF and higher (Y5U)
Dissipation factor at 1 kHz, 1V (RMS)	2.5% max
Approvals	FIMKO, DEMKO, NEMKO, SEMKO, VDE (EN132400/60384-14 2nd Ed.) - cUL 1414 (pending)
Operating temperature range	from -30 to +85°C
Climatic category	25/085/21