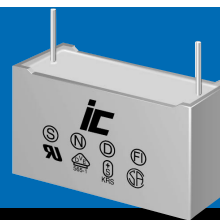


MKP

Class X2 Radial Lead Metallized Polypropylene Capacitors



- EMI filter
- Antenna coupling
- Across the line
- Line bypass

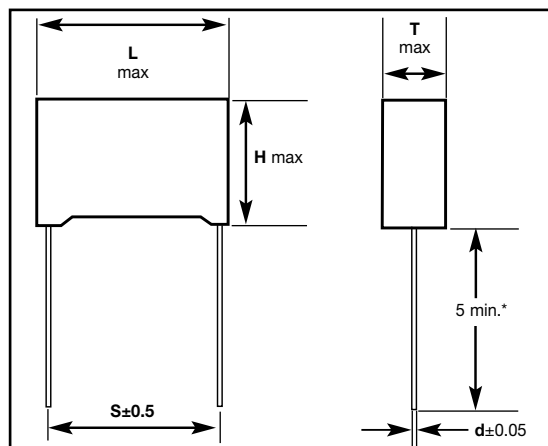
Operating Temperature Range		-40°C to +110°C		
Capacitance Tolerance		±10% at 1kHz, 25°C		
Voltage Range 50-60Hz	VAC	310 (UL, CSA) 275 (IEC 60384-14)		
Dissipation Factor		0.1% at 1 kHz, 20°C		
Insulation Resistance	Capacitance	Terminal to Terminal		
	≤0.33 μF	15,000MΩ at 100VDC		
	>0.33 μF	5,000 MΩ x μF at 100VDC		
Load Life	1000 hours at +110°C with 125% of rated voltage with the voltage increased to 1000Vrms for 0.1 seconds every hour.			
	Capacitance Change	<5% maximum of initial measured value		
	Dissipation Factor	<0.15% at 1kHz		
	Insulation Resistance	Capacitance	Terminal to Terminal	
		≤0.33uF	7500 MΩ Minimum at 100VDC	
		>0.33uF	2500 MΩxuF Minimum at 100VDC	
		3000 MΩ	Terminal to Case	
Humidity Test	500 hours at 90 to 95% RH, 40°C and no voltage applied after which the following voltage shall be applied for 1minute to each capacitor C≤0.0068uF 1500VAC, C>0.0068uF 1075VDC			
	Capacitance Change	<5% of initial measured value		
	Dissipation Factor	<0.15% at 1kHz		
	Insulation Resistance	Capacitance	Terminal to Terminal	
		≤0.33uF	7500 MΩ Minimum at 100VDC	
		>0.33uF	2500 MΩxuF Minimum at 100VDC	
		Terminal to Case	15000 MΩ at 100 VDC	
Voltage Impulse Test	24 pulses			
	C≤ 1.0uF Vp=2.5kVDC C>1.0uF Vp=2.5kV/√C			
Self-inductance		≤1 nH/mm along the capacitor pitch and lead length		
Dielectric Strength	Terminal to Terminal	C≤0.0068uF 1500Vac or 2121 Vdc for 1 minute C>0.0068uF 1000Vac or 1768 Vdc for 1 minute Cut-off current: 2Aac or 10mAdc Current limiting resistance: 1Ω/V		
	Terminal to Case	2050VAC applied for 1 minute.		
Capacitance Drift Factor		<1 nH/mm along the capacitor pitch and lead length		
Capacitance Temperature Coefficient		-200 ppm/°C, ± 100ppm/°C		
Construction		Wound, Extended metallized film		
Dielectric		Polypropylene film		
Electrodes		Vacuum deposited aluminum layers		
Leads		Tinned copper wire (lead free)		
Coating		Solvent resistant box with flame retardant epoxy sealed resin (UL 94V-O)		

STANDARD PART LISTING

Capacitance (μ F)	IC PART NUMBER	dv/dt (v/ μ s)	L Max.	H Max.	T Max.	S	d
0.0047	472MKP275K	400	13	10	5	10	0.6
0.0068	682MKP275K	400	13	10	5	10	0.6
0.01	103MKP275K	400	13	10	5	10	0.6
0.015	153MKP275K	400	13	11	5	10	0.6
0.022	223MKP275K	400	13	11	5	10	0.6
0.022	223MKP275KB	300	18	11	5	150	0.8
0.033	333MKP275K	400	13	12	6	10	0.6
0.047	473MKP275K	300	18	11	5	15	0.8
0.068	683MKP275K	300	18	12	6	15	0.8
0.1	104MKP275K	300	18	11	6	15	0.8
0.15	154MKP275K	180	26.5	16.5	7	22.5	0.8

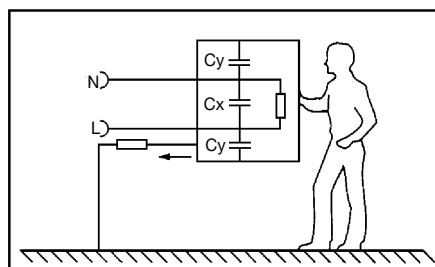
Capacitance (μ F)	IC PART NUMBER	dv/dt (v/ μ s)	L Max.	H Max.	T Max.	S	d
0.15	154MKP275KB	300	18	13.5	7.5	15	0.8
0.22	224MKP275K	180	26	14.5	8	22.5	0.8
0.22	224MKP275KB	300	18	14	8	15	0.8
0.33	334MKP275K	180	26	17	8.5	22.5	0.8
0.47	474MKP275KB	180	26.5	19	10	22.5	0.8
0.47	474MKP275K	120	3	18	9	27.5	0.8
0.68	684MKP275K	120	3	20	10	27.5	0.8
1.0	105MKP275K	120	3	20	11	27.5	0.8
1.5	155MKP275K	120	3	23.5	18	27.5	0.8
2.2	225MKP275K	120	3	26	18	27.5	0.8

Convert to inches, divide by 25.4



All dimensions in (mm)

*15mm lead length available upon request



X2 capacitors are used to suppress electrical noise by reducing the input impedance of the device incorporating the capacitor.

X2 capacitors are connected across the supply line where failure of the capacitor will not result in personal exposure to electrical shock.

X2 capacitors are to be used in applications where the peak voltage is ≤ 1200 V.

Safety Agency	Standard	File #	Rated Voltage	Class
UL	1414	E-149075	310 VAC	FOW X2
CSA	C22.2, No.1-98, 8-M1986	158927, LR85363	250 VAC	X
CB	IEC-60384-14	DE-1-11829	275 VAC	X2
ENEC	EN-1324000 IEC-60384-14	139131L	275 VAC	X2