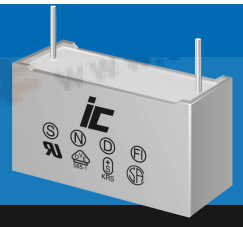
MKP

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**	**Terminal to Case**	
	≤0.33 µF	15,000MΩ at 100VDC	>30,000 MΩ at 100VDC >500MΩ at 500VDC	
	>0.33 µF	5,000 MΩ x µF at 100VDC	>30,000 MΩ at 100VDC >500MΩ at 500VDC	
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/$\sqrt{C}$			
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 zinc layers			
Leads	Tinned copper wire (lead free)			
Coating	Solvent resistant box with flame retardant epoxy sealed resin (UL 94V-0)			

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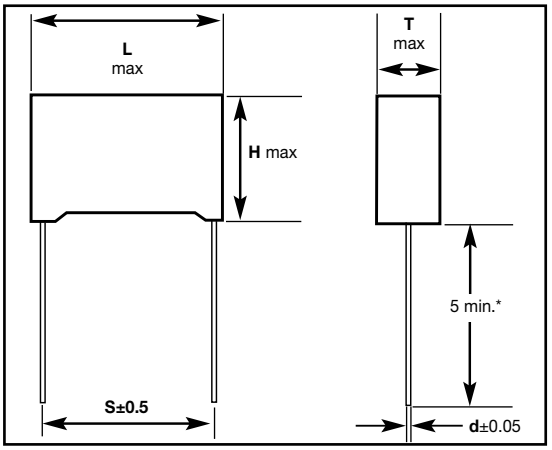
STANDARD PART LISTING

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µs)	LxHxT (mm)	S	d
0.0047	472MKP275K	400	13x10x5	10	0.6
0.0047	472MKP275KC	500	10x8x4	7.5	0.6
0.0056	562MKP275KC	500	10x8x4	7.5	0.6
0.0056	562MKP275KD	400	13x10x5	10	0.6
0.0068	682MKP275K	400	13x10x5	10	0.6
0.0068	682MKP275KC	500	10x8x4	7.5	0.6
0.0082	822MKP275KC	500	10x8x4	7.5	0.6
0.0082	822MKP275KD	400	13x10x5	10	0.6
0.01	103MKP275K	400	13x10x5	10	0.6
0.01	103MKP275KC	500	10x8x4	7.5	0.6
0.01	103MKP275KE	300	18x11x5	15	0.8
0.012	123MKP275KC	500	10x8x4	7.5	0.6
0.012	123MKP275KD	400	13x10x5	10	0.6
0.015	153MKP275K	400	13x11x5	10	0.6
0.015	153MKP275KC	500	10x9x4	7.5	0.6
0.015	153MKP275KE	300	18x11x5	15	0.8
0.018	183MKP275KC	500	10x9x4	7.5	0.6
0.018	183MKP275KD	400	13x11x5	10	0.6
0.022	223MKP275K	400	13x11x5	10	0.6
0.022	223MKP275KB	300	18x11x5	15	0.8
0.022	223MKP275KC	500	10x9x4	7.5	0.6
0.027	273MKP275KC	500	10x10x5	7.5	0.6
0.027	273MKP275KD	400	13x11x5	10	0.6
0.033	333MKP275K	400	13x12x6	10	0.6
0.033	333MKP275KC	500	10x10x5	7.5	0.6
0.033	333MKP275KE	300	18x11x5	15	0.8
0.039	393MKP275KC	500	10x11x5	7.5	0.6
0.039	393MKP275KD	400	13x9x4	10	0.6
0.039	393MKP275KE	300	18x11x5	15	0.8
0.047	473MKP275K	300	18x11x5	15	0.8
0.047	473MKP275KC	500	10x12x6	7.5	0.6
0.047	473MKP275KD	400	13x10x5	10	0.6
0.056	563MKP275KC	500	10x12x6	7.5	0.6
0.056	563MKP275KD	400	13x10x5	10	0.6
0.056	563MKP275KE	300	18x11x5	15	0.8
0.068	683MKP275K	300	18x11x5	15	0.8
0.068	683MKP275KD	400	13x11x5	10	0.6
0.082	823MKP275KD	400	13x12x6	10	0.6
0.082	823MKP275KE	300	18x11x5	15	0.8
0.1	104MKP275K	300	18x11x5	15	0.8
0.1	104MKP275KD	400	13x12x6	10	0.6

Convert to inches, divide by 25.4

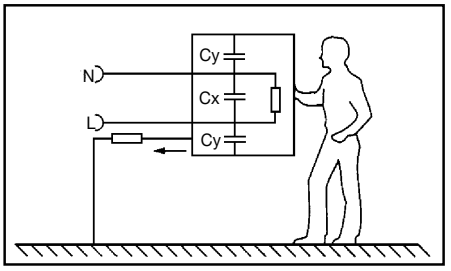
Capacitance (µF)	IC PART NUMBER	dv/dt (v/µs)	LxHxT (mm)	S	d
0.12	124MKP275KD	400	13x13x7	10	0.6
0.15	154MKP275K	180	26x14.5x6	22.5	0.8
0.15	154MKP275KD	400	13x14x8	10	0.6
0.15	154MKP275KE	300	18x13.5x7.5	15	0.8
0.18	184MKP275KE	300	18x12x6	15	0.8
0.18	184MKP275KG	180	26x14.5x6	22.5	0.8
0.22	224MKP275K	180	26x14.5x6	22.5	0.8
0.22	224MKP275KB	300	18x14x8	15	0.8
0.27	274MKP275KE	300	18x14.5x7.5	15	0.8
0.33	334MKP275K	180	26x17x8.5	22.5	0.8
0.33	334MKP275KE	300	18x13.5x10	15	0.8
0.39	394MKP275KE	300	18x17x8	15	0.8
0.39	394MKP275KG	180	26x16.5x7.5	22.5	0.8
0.47	474MKP275KE	300	18x18x9	15	0.8
0.47	474MKP275K	120	32x18x9	27.5	0.8
0.47	474MKP275KB	180	26x16.5x7	22.5	0.8
0.56	564MKP275KE	300	18x19x10	15	0.8
0.56	564MKP275KG	180	26x16.5x7.5	22.5	0.8
0.56	564MKP275KH	120	31x20x10	27.5	0.8
0.68	684MKP275K	120	31x20x10	27.5	0.8
0.68	684MKP275KG	180	26x17x8	22.5	0.8
0.82	824MKP275KG	180	26x18x9	22.5	0.8
0.82	824MKP275KH	120	31x20x11	27.5	0.8
1	105MKP275K	120	31x20x11	27.5	0.8
1	105MKP275KG	180	26x19x10	22.5	0.8
1.2	125MKP275KG	180	26x20x11.5	22.5	0.8
1.5	155MKP275K	120	31x23.5x14	27.5	0.8
1.5	155MKP275KE	180	26x22x12	22.5	0.8
1.8	185MKP275KE	180	26x24x14	22.5	0.8
2.2	225MKP275K	120	31x26x18	27.5	0.8
2.2	225MKP275KE	180	26x25x15	22.5	0.8
3.3	335MKP275KH	100	31x33x18	27.5	1.0
3.3	335MKP275KJ	100	41.5x28.5x16	37.5	1.0
3.9	395MKP275KJ	100	41.5x35x20	37.5	1.0
4.7	475MKP275KH	120	31.5x37x22	27.5	1.0
4.7	475MKP275KJ	100	41.5x32x19	37.5	1.0
5.6	565MKP275KJ	100	41.5x35x20	37.5	1.0
6.8	685MKP275KJ	100	41.5x39x24	37.5	1.0
8.2	825MKP275KJ	100	41.5x45x30	37.5	1.0
10	106MKP275KJ	100	41.5x45x30	37.5	1.0

PHYSICAL DIMENSIONS



All dimensions in (mm)

***17mm 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 ≤1200V.

Safety Agency	Standard	File #	Rated Voltage	Class
UL	1414	E-317132	310 VAC	FOK X2*A FOK Y2*B
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

A- Antenna coupling, Line Bypass, Across the line
B- Electromagnetic Interference Filter