

## Overview

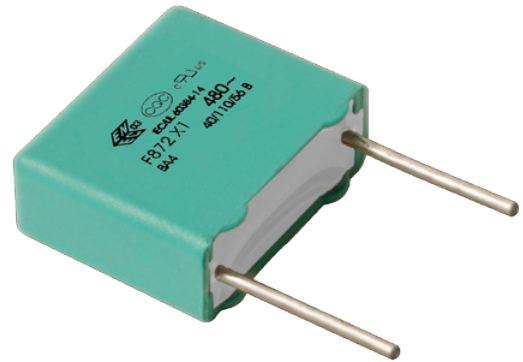
Metallized polypropylene film encapsulated with self-extinguishing resin in a box of material recognized to UL 94 V-0.

## Applications

For worldwide use as electromagnetic interference suppressor in all X1 and across-the-line applications.

## Benefits

- Approvals : ENEC, UL, cUL, CQC
- Rated voltage: 480 VAC 50/60 Hz
- Capacitance range: 0.001 – 5.6  $\mu$ F
- Lead spacing: 10 – 37.5 mm
- Capacitance tolerance:  $\pm$ 20%,  $\pm$ 10%,  $\pm$ 5% on request
- Climatic category 40/110/56, IEC 60068-1
- Tape and reel in accordance with IEC 60286-2
- RoHS Compliant and lead-free terminations
- Operating temperature range of -40°C to +110°C
- 100% screening factory test at 3,000 VDC



## Part Number System

F	872	B	S	104	M	480	C
Capacitor Class	Series	Lead Spacing (mm)	Size Code	Capacitance Code (pF)	Capacitance Tolerance	Voltage (VAC)	Lead and Packaging Code
F = Film	X1, Metallized Polypropylene	A = 10 B = 15 D = 22.5 F = 27.5 R = 37.5	See Dimension Table	First two digits represent significant figures. Third digit specifies number of zeros.	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%	480	See Ordering Options Table

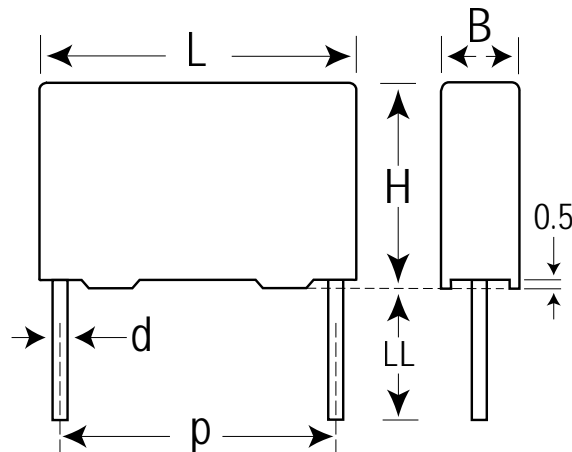
## Ordering Options Table

Lead Spacing Nominal (mm)	Type of Leads and Packaging	Lead Length (mm)	Lead and Packaging Code
10	<b>Standard Lead and Packaging Options</b>		
	Bulk (Bag)–Short Leads	4 +2/-0	C
	Bulk (Bag)–Long Leads	17 +0/-1	A
	Tape & Reel (Standard Reel)	H <sub>0</sub> = 18.5 +/-0.5	L
	<b>Other Lead and Packaging Options</b>		
	Bulk (Bag)–Max Length Leads	20 +5/-0	ALL0L
	Ammo Pack	H <sub>0</sub> = 18.5 +/-0.5	R
Tape & Reel (Large Reel)	H <sub>0</sub> = 18.5 +/-0.5	P	

## Ordering Options Table cont'd

Lead Spacing Nominal (mm)	Type of Leads and Packaging	Lead Length (mm)	Lead and Packaging Code
15	<b>Standard Lead and Packaging Options</b>		
	Bulk (Bag)–Short Leads	4 +2/-0	C
	Bulk (Bag)–Long Leads	17 +0/-1	A
	Tape & Reel (Standard Reel)	H <sub>0</sub> = 18.5 +/-0.5	L
	Pizza Pack	4 +2/-0	Z
	<b>Other Lead and Packaging Options</b>		
	Bulk (Bag)–Max Length Leads	25 +5/-0	ALROL
	Ammo Pack	H <sub>0</sub> = 18.5 +/-0.5	R
	Tape & Reel (Large Reel)	H <sub>0</sub> = 18.5 +/-0.5	P
22.5	<b>Standard Lead and Packaging Options</b>		
	Bulk (Tray)-Short Leads	4 +2/-0	C
	Bulk (Tray)-Long Leads	17 +0/-1	A
	Pizza Pack	4 +2/-0	Z
	<b>Other Lead and Packaging Options</b>		
	Tape & Reel (Standard Reel)	H <sub>0</sub> = 18.5 +/-0.5	L
	Tape & Reel (Large Reel)	H <sub>0</sub> = 18.5 +/-0.5	P
	Ammo Pack	H <sub>0</sub> = 18.5 +/-0.5	R
27.5	<b>Standard Lead and Packaging Options</b>		
	Bulk (Tray)-Short Leads	4 +2/-0	C
	Bulk (Tray)-Long Leads	17 +0/-1	A
	Pizza Pack	4 +2/-0	Z
37.5	<b>Standard Lead and Packaging Options</b>		
	Bulk (Tray)-Short Leads	4 +2/-0	C
	Bulk (Tray)-Long Leads	17 +0/-1	A
	Pizza Pack	4 +2/-0	Z

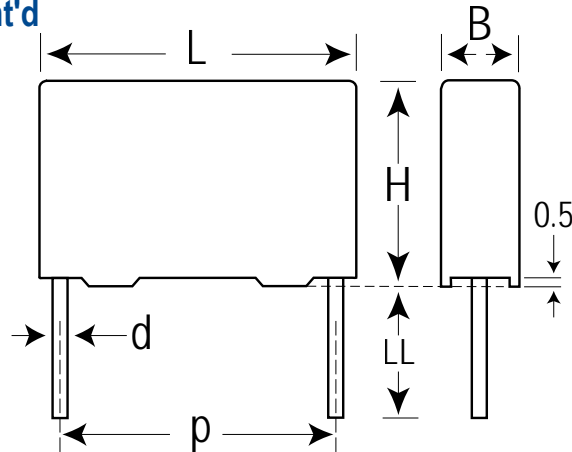
## Dimensions – Millimeters



Size Code	Version	$p$		$B$		$H$		$L$		$d$	
		Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance
AG		10.0	+/-0.4	4.0	Max	9.0	Max	13.0	Max	0.6	+/-0.05
AK		10.0	+/-0.4	5.0	Max	11.0	Max	13.0	Max	0.6	+/-0.05
AP		10.0	+/-0.4	6.0	Max	12.0	Max	13.0	Max	0.6	+/-0.05
AO		10.0	+/-0.4	7.0	Max	17.0	Max	13.0	Max	0.6	+/-0.05
AL	Low Profile	10.0	+/-0.4	9.5	Max	7.5	Max	13.0	Max	0.6	+/-0.05
AE	Special Version	10.0	+/-0.4	4.0	Max	8.0	Max	13.0	Max	0.6	+/-0.05
BB		15.0	+/-0.4	4.0	Max	10.0	Max	18.0	Max	0.8	+/-0.05
BC		15.0	+/-0.4	5.0	Max	11.0	Max	18.0	Max	0.8	+/-0.05
BE		15.0	+/-0.4	5.5	Max	12.5	Max	18.0	Max	0.8	+/-0.05
BG		15.0	+/-0.4	6.0	Max	12.0	Max	18.0	Max	0.8	+/-0.05
BI	High Profile	15.0	+/-0.4	6.0	Max	17.5	Max	18.0	Max	0.8	+/-0.05
BK		15.0	+/-0.4	7.5	Max	13.5	Max	18.0	Max	0.8	+/-0.05
BO	High Profile	15.0	+/-0.4	7.5	Max	18.5	Max	18.0	Max	0.8	+/-0.05
BP		15.0	+/-0.4	8.5	Max	14.5	Max	18.0	Max	0.8	+/-0.05
BT		15.0	+/-0.4	9.0	Max	12.5	Max	18.0	Max	0.8	+/-0.05
BS		15.0	+/-0.4	10.0	Max	16.0	Max	18.0	Max	0.8	+/-0.05
BY		15.0	+/-0.4	11.0	Max	19.0	Max	18.0	Max	0.8	+/-0.05
BZ	Special Version	15.0	+/-0.4	12.0	Max	20.0	Max	18.0	Max	0.8	+/-0.05
BR	Low Profile	15.0	+/-0.4	13.0	Max	12.0	Max	18.0	Max	0.8	+/-0.05
DB		22.5	+/-0.4	6.0	Max	14.5	Max	26.0	Max	0.8	+/-0.05
DI		22.5	+/-0.4	7.0	Max	16.0	Max	26.0	Max	0.8	+/-0.05
DH		22.5	+/-0.4	8.0	Max	16.0	Max	26.0	Max	0.8	+/-0.05
DJ		22.5	+/-0.4	8.5	Max	17.0	Max	26.0	Max	0.8	+/-0.05
DM		22.5	+/-0.4	9.0	Max	18.5	Max	26.0	Max	0.8	+/-0.05
DO		22.5	+/-0.4	10.0	Max	18.5	Max	26.0	Max	0.8	+/-0.05
DP		22.5	+/-0.4	11.0	Max	20.0	Max	26.0	Max	0.8	+/-0.05
DU		22.5	+/-0.4	13.0	Max	22.0	Max	26.0	Max	0.8	+/-0.05
DY		22.5	+/-0.4	15.5	Max	24.5	Max	26.0	Max	0.8	+/-0.05
FB		27.5	+/-0.4	9.0	Max	17.0	Max	31.5	Max	0.8	+/-0.05
FC		27.5	+/-0.4	11.0	Max	20.0	Max	31.5	Max	0.8	+/-0.05
FI		27.5	+/-0.4	13.0	Max	25.0	Max	31.5	Max	0.8	+/-0.05

Note: See Ordering Options Table for lead length (LL) options.

**Dimensions – Millimeters cont'd**



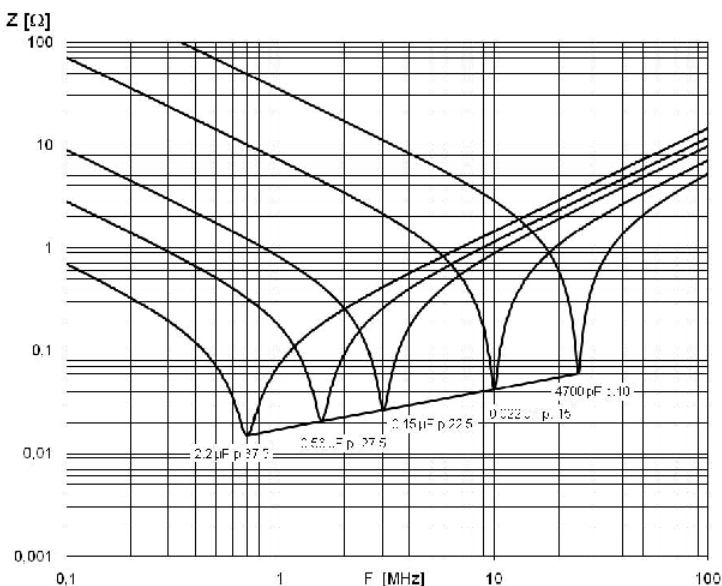
Size Code	Version	p		B		H		L		d	
		Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance
FN		27.5	+/-0.4	14.0	Max	28.0	Max	31.5	Max	0.8	+/-0.05
FO	High Profile	27.5	+/-0.4	17.0	Max	40.0	Max	31.5	Max	0.8	+/-0.05
FR		27.5	+/-0.4	17.5	Max	28.0	Max	31.5	Max	0.8	+/-0.05
FS		27.5	+/-0.4	19.0	Max	29.0	Max	31.5	Max	0.8	+/-0.05
FY		27.5	+/-0.4	22.0	Max	37.0	Max	31.5	Max	0.8	+/-0.05
FH	Low Profile	27.5	+/-0.4	21.0	Max	12.5	Max	31.5	Max	0.8	+/-0.05
FQ	Low Profile	27.5	+/-0.4	27.5	Max	16.0	Max	31.5	Max	0.8	+/-0.05
FT	Low Profile	27.5	+/-0.4	31.0	Max	19.0	Max	31.5	Max	0.8	+/-0.05
RB		37.5	+/-0.4	11.0	Max	22.0	Max	41.0	Max	1	+/-0.05
RF		37.5	+/-0.4	13.0	Max	24.0	Max	41.0	Max	1	+/-0.05
RH		37.5	+/-0.4	15.0	Max	26.0	Max	41.0	Max	1	+/-0.05
RC		37.5	+/-0.4	16.0	Max	28.5	Max	41.0	Max	1	+/-0.05
RD		37.5	+/-0.4	19.0	Max	32.0	Max	41.0	Max	1	+/-0.05
RP		37.5	+/-0.4	21.0	Max	38.0	Max	41.0	Max	1	+/-0.05
RO		37.5	+/-0.4	24.0	Max	44.0	Max	41.0	Max	1	+/-0.05
RU		37.5	+/-0.4	30.0	Max	45.0	Max	41.0	Max	1	+/-0.05
RV	Low Profile	37.5	+/-0.4	24.0	Max	15.0	Max	41.0	Max	1	+/-0.05
RW	Low Profile	37.5	+/-0.4	24.0	Max	19.0	Max	41.0	Max	1	+/-0.05

Note: See Ordering Options Table for lead length (LL) options.

## Performance Characteristics

Rated Voltage	480 VAC 50/60 Hz		
Capacitance Range	0.001 – 5.6 $\mu$ F		
Capacitance Tolerance	$\pm$ 20%, $\pm$ 10%, $\pm$ 5% on request		
Temperature Range	-40°C to +110°C		
Climatic Category	40/110/56		
Approvals	ENEC, UL, cUL, CQC (pending)		
Dissipation Factor	Maximum Values at +23°C		
		$C \leq 0.1 \mu$ F	$C > 0.1 \mu$ F
	1 kHz	0.3%	0.2%
Test Voltage Between Terminals	The 100% screening factory test is carried out at 2,500 VDC. The voltage level is selected to meet the requirements in applicable equipment standards. All electrical characteristics are checked after the test. It is not permitted to repeat this test as there is a risk to damage the capacitor. KEMET is not liable in such case for any failures.		
Insulation Resistance	Between Terminals:		
	$C \leq 0.33 \mu$ F	$\geq 30,000 \text{ M}\Omega$	
	$C > 0.33 \mu$ F	$\geq 10,000 \text{ M}\Omega \cdot \mu$ F	
In DC Applications	Recommended voltage $\leq 1,000$ VDC		




## Impedance Graph



## Environmental Test Data

Test	IEC Publication	Procedure
Endurance	IEC 60384-14	1.25 x V <sub>R</sub> VAC 50 Hz, once every hour increase to 1,000 VAC for 0.1 second, 1,000 hours at upper rated temperature
Vibration	IEC 60068-2-6 Test Fc	3 directions at 2 hours each 10 – 55 Hz at 0.75 mm or 98 m/s <sup>2</sup>
Bump	IEC 60068-2-29 Test Eb	1,000 bumps at 390 m/s <sup>2</sup>
Change of Temperature	IEC 60068-2-14 Test Na	Upper and lower rated temperature 5 cycles
Active Flammability	IEC 60384-14	V <sub>R</sub> + 20 surge pulses at 4 kV (pulse every 5 seconds)
Passive Flammability	IEC 60384-14	IEC 60384-1, IEC 60695-11-5 Needle-flame test
Damp Heat Steady State	IEC 60068-2-78 Test Cab	+40°C and 93% RH, 56 days

## Approvals

Mark	Specification	File Number
	EN/IEC 60384-14	In progress
	UL 60384-14 and CAN/CSA-E60384-14	In progress
	GB/T 14472	Pending

## Environmental Compliance

All KEMET EMI capacitors are RoHS Compliant and Halogen Free.



Table 1 – Ratings &amp; Part Number Reference

Cap Value ( $\mu$ F)	Size Code	Max Dimensions in mm			Lead Spacing (p)	dV/dt (V/ $\mu$ s)	Part Number
		B	H	L			
0.001	AE	4	8	13	10	750	F872AE102(1)480(2)
0.0012	AE	4	8	13	10	750	F872AE122(1)480(2)
0.0015	AE	4	8	13	10	750	F872AE152(1)480(2)
0.0018	AE	4	8	13	10	750	F872AE182(1)480(2)
0.0018	AL	9.5	7.5	13	10	750	F872AL182(1)480(2)
0.0022	AE	4	8	13	10	750	F872AE222(1)480(2)
0.0022	AL	9.5	7.5	13	10	750	F872AL222(1)480(2)
0.0025	AE	4	8	13	10	750	F872AE252(1)480(2)
0.0025	AL	9.5	7.5	13	10	750	F872AL252(1)480(2)
0.0027	AE	4	8	13	10	750	F872AE272(1)480(2)
0.0027	AL	9.5	7.5	13	10	750	F872AL272(1)480(2)
0.0033	AE	4	8	13	10	750	F872AE332(1)480(2)
0.0033	AL	9.5	7.5	13	10	750	F872AL332(1)480(2)
0.0039	AE	4	8	13	10	750	F872AE392(3)480(2)
0.0039	AG	4	9	13	10	750	F872AG392(1)480(2)
0.0039	AL	9.5	7.5	13	10	750	F872AL392(1)480(2)
0.0047	AG	4	9	13	10	750	F872AG472(1)480(2)
0.0047	AL	9.5	7.5	13	10	750	F872AL472(1)480(2)
0.0056	AK	5	11	13	10	750	F872AK562(1)480(2)
0.0056	AL	9.5	7.5	13	10	750	F872AL562(1)480(2)
0.0068	AK	5	11	13	10	750	F872AK682(1)480(2)
0.0068	AL	9.5	7.5	13	10	750	F872AL682(1)480(2)
0.0082	AK	5	11	13	10	750	F872AK822(3)480(2)
0.0082	AL	9.5	7.5	13	10	750	F872AL822(1)480(2)
0.01	AL	9.5	7.5	13	10	750	F872AL103(1)480(2)
0.01	AP	6	12	13	10	750	F872AP103(1)480(2)
0.012	AP	6	12	13	10	750	F872AP123(3)480(2)
0.015	AO	7	17	13	10	750	F872AO153(1)480(2)
0.018	AO	7	17	13	10	750	F872AO183(3)480(2)
0.0027	BB	4	10	18	15	600	F872BB272(1)480(2)
0.0033	BB	4	10	18	15	600	F872BB332(1)480(2)
0.0039	BB	4	10	18	15	600	F872BB392(1)480(2)
0.0047	BB	4	10	18	15	600	F872BB472(1)480(2)
0.0056	BB	4	10	18	15	600	F872BB562(1)480(2)
0.0068	BB	4	10	18	15	600	F872BB682(1)480(2)
0.0082	BB	4	10	18	15	600	F872BB822(1)480(2)
0.01	BB	4	10	18	15	600	F872BB103(1)480(2)
0.012	BB	4	10	18	15	600	F872BB123(1)480(2)
0.015	BB	4	10	18	15	600	F872BB153(1)480(2)
0.015	BT	9	12.5	18	15	600	F872BT153(1)480(2)
0.018	BC	5	11	18	15	600	F872BC183(1)480(2)
0.018	BT	9	12.5	18	15	600	F872BT183(1)480(2)
0.022	BC	5	11	18	15	600	F872BC223(1)480(2)
0.022	BT	9	12.5	18	15	600	F872BT223(1)480(2)
0.025	BE	5.5	12.5	18	15	600	F872BE253(1)480(2)
0.025	BT	9	12.5	18	15	600	F872BT253(1)480(2)
0.027	BE	5.5	12.5	18	15	600	F872BE273(1)480(2)
0.027	BT	9	12.5	18	15	600	F872BT273(1)480(2)
0.033	BE	5.5	12.5	18	15	600	F872BE333(3)480(2)
0.033	BG	6	12	18	15	600	F872BG333(1)480(2)
0.033	BT	9	12.5	18	15	600	F872BT333(1)480(2)
0.039	BI	6	17.5	18	15	600	F872BI393(3)480(2)
0.039	BI	6	17.5	18	15	600	F872BI393(1)480(2)
0.039	BK	7.5	13.5	18	15	600	F872BK393(1)480(2)
0.039	BR	13	12	18	15	600	F872BR393(1)480(2)
0.039	BT	9	12.5	18	15	600	F872BT393(1)480(2)
0.047	BI	6	17.5	18	15	600	F872BI473(1)480(2)
0.047	BK	7.5	13.5	18	15	600	F872BK473(1)480(2)
0.047	BR	13	12	18	15	600	F872BR473(1)480(2)
Cap Value ( $\mu$ F)	Size Code	B (mm)	H (mm)	L (mm)	Lead Spacing (p)	dV/dt (V/ $\mu$ s)	Part Number

(1)  $M = \pm 20\%$ ,  $K = \pm 10\%$ ,  $J = \pm 5\%$  on request.

(2) Insert lead and packaging code. See table for available options.

(3)  $M = \pm 20\%$  (only available tolerance).

Table 1 – Ratings &amp; Part Number Reference cont'd

Cap Value ( $\mu$ F)	Size Code	Max Dimensions in mm			Lead Spacing (p)	dV/dt (V/ $\mu$ s)	Part Number
		B	H	L			
0.047	BT	9	12.5	18	15	600	F872BT473(1)480(2)
0.056	BI	6	17.5	18	15	600	F872BI563(3)480(2)
0.056	BK	7.5	13.5	18	15	600	F872BK563(3)480(2)
0.056	BO	7.5	18.5	18	15	600	F872BO563(1)480(2)
0.056	BP	8.5	14.5	18	15	600	F872BP563(1)480(2)
0.056	BP	8.5	14.5	18	15	600	F872BP563(1)480(2)
0.056	BR	13	12	18	15	600	F872BR563(1)480(2)
0.068	BO	7.5	18.5	18	15	600	F872BO683(1)480(2)
0.068	BP	8.5	14.5	18	15	600	F872BP683(3)480(2)
0.068	BR	13	12	18	15	600	F872BR683(1)480(2)
0.082	BO	7.5	18.5	18	15	600	F872BO823(3)480(2)
0.082	BR	13	12	18	15	600	F872BR823(1)480(2)
0.082	BS	10	16	18	15	600	F872BS823(1)480(2)
0.1	BS	10	16	18	15	600	F872BS104(3)480(2)
0.1	BY	11	19	18	15	600	F872BY104(1)480(2)
0.12	BY	11	19	18	15	600	F872BY124(3)480(2)
0.12	BZ	12	20	18	15	600	F872BZ124(1)480(2)
0.15	BZ	12	20	18	15	600	F872BZ154(3)480(2)
0.039	DB	6	14.5	26	22.5	300	F872DB393(1)480(2)
0.047	DB	6	14.5	26	22.5	300	F872DB473(1)480(2)
0.056	DB	6	14.5	26	22.5	300	F872DB563(1)480(2)
0.068	DB	6	14.5	26	22.5	300	F872DB683(1)480(2)
0.082	DI	7	16	26	22.5	300	F872DI823(1)480(2)
0.1	DI	7	16	26	22.5	300	F872DI104(1)480(2)
0.12	DH	8	16	26	22.5	300	F872DH124(1)480(2)
0.12	DI	7	16	26	22.5	300	F872DI124(3)480(2)
0.15	DJ	8.5	17	26	22.5	300	F872DJ154(3)480(2)
0.15	DM	9	18.5	26	22.5	300	F872DM154(1)480(2)
0.18	DM	9	18.5	26	22.5	300	F872DM184(3)480(2)
0.18	DO	10	18.5	26	22.5	300	F872DO184(1)480(2)
0.22	DO	10	18.5	26	22.5	300	F872DO224(3)480(2)
0.22	DP	11	20	26	22.5	300	F872DP224(1)480(2)
0.25	DU	13	22	26	22.5	300	F872DU254(1)480(2)
0.27	DU	13	22	26	22.5	300	F872DU274(1)480(2)
0.33	DU	13	22	26	22.5	300	F872DU334(1)480(2)
0.39	DU	13	22	26	22.5	300	F872DU394(3)480(2)
0.39	DY	15.5	24.5	26	22.5	300	F872DY394(1)480(2)
0.47	DY	15.5	24.5	26	22.5	300	F872DY474(1)480(2)
0.15	FB	9	17	31.5	27.5	225	F872FB154(1)480(2)
0.18	FB	9	17	31.5	27.5	225	F872FB184(1)480(2)
0.22	FB	9	17	31.5	27.5	225	F872FB224(1)480(2)
0.25	FB	9	17	31.5	27.5	225	F872FB254(1)480(2)
0.25	FH	21	12.5	31.5	27.5	225	F872FH254(1)480(2)
0.27	FB	9	17	31.5	27.5	225	F872FB274(1)480(2)
0.27	FH	21	12.5	31.5	27.5	225	F872FH274(1)480(2)
0.33	FC	11	20	31.5	27.5	225	F872FC334(1)480(2)
0.33	FH	21	12.5	31.5	27.5	225	F872FH334(1)480(2)
0.39	FC	11	20	31.5	27.5	225	F872FC394(1)480(2)
0.39	FH	21	12.5	31.5	27.5	225	F872FH394(1)480(2)
0.47	FC	11	20	31.5	27.5	225	F872FC474(3)480(2)
0.47	FH	21	12.5	31.5	27.5	225	F872FH474(1)480(2)
0.47	FI	13	25	31.5	27.5	225	F872FI474(1)480(2)
0.56	FH	21	12.5	31.5	27.5	225	F872FH564(3)480(2)
0.56	FI	13	25	31.5	27.5	225	F872FI564(1)480(2)
0.56	FQ	27.5	16	31.5	27.5	225	F872FQ564(1)480(2)
0.68	FI	13	25	31.5	27.5	225	F872FI684(1)480(2)
0.68	FQ	27.5	16	31.5	27.5	225	F872FQ684(1)480(2)
0.82	FI	13	25	31.5	27.5	225	F872FI824(3)480(2)
0.82	FN	14	28	31.5	27.5	225	F872FN824(1)480(2)

(1)  $M = \pm 20\%$ ,  $K = \pm 10\%$ ,  $J = \pm 5\%$  on request.

(2) Insert lead and packaging code. See table for available options.

(3)  $M = \pm 20\%$  (only available tolerance).

Table 1 – Ratings &amp; Part Number Reference cont'd

Cap Value ( $\mu\text{F}$ )	Size Code	Max Dimensions in mm			Lead Spacing (p)	dV/dt (V/ $\mu\text{s}$ )	Part Number
		B	H	L			
0.82	FQ	27.5	16	31.5	27.5	225	F872FQ824(1)480(2)
1	FO	17	40	31.5	27.5	225	F872FO105(1)480(2)
1	FQ	27.5	16	31.5	27.5	225	F872FQ105(3)480(2)
1	FR	17.5	28	31.5	27.5	225	F872FR105(1)480(2)
1	FT	31	19	31.5	27.5	225	F872FT105(1)480(2)
1.2	FO	17	40	31.5	27.5	225	F872FO125(1)480(2)
1.2	FR	17.5	28	31.5	27.5	225	F872FR125(1)480(2)
1.2	FS	19	29	31.5	27.5	225	F872FS125(1)480(2)
1.2	FT	31	19	31.5	27.5	225	F872FT125(1)480(2)
1.5	FO	17	40	31.5	27.5	225	F872FO155(1)480(2)
1.5	FS	19	29	31.5	27.5	225	F872FS155(3)480(2)
1.5	FY	22	37	31.5	27.5	225	F872FY155(1)480(2)
1.8	FY	22	37	31.5	27.5	225	F872FY185(1)480(2)
2.2	FY	22	37	31.5	27.5	225	F872FY225(3)480(2)
0.33	RB	11	22	41	37.5	150	F872RB334(1)480(2)
0.39	RB	11	22	41	37.5	150	F872RB394(1)480(2)
0.47	RB	11	22	41	37.5	150	F872RB474(1)480(2)
0.56	RB	11	22	41	37.5	150	F872RB564(1)480(2)
0.56	RV	24	15	41	37.5	150	F872RV564(1)480(2)
0.68	RB	11	22	41	37.5	150	F872RB684(1)480(2)
0.68	RV	24	15	41	37.5	150	F872RV684(1)480(2)
0.82	RB	11	22	41	37.5	150	F872RB824(3)480(2)
0.82	RF	13	24	41	37.5	150	F872RF824(1)480(2)
0.82	RV	24	15	41	37.5	150	F872RV824(1)480(2)
1	RF	13	24	41	37.5	150	F872RF105(1)480(2)
1	RV	24	15	41	37.5	150	F872RV105(1)480(2)
1.2	RH	15	26	41	37.5	150	F872RH125(1)480(2)
1.2	RV	24	15	41	37.5	150	F872RV125(3)480(2)
1.2	RW	24	19	41	37.5	150	F872RW125(1)480(2)
1.5	RC	16	28.5	41	37.5	150	F872RC155(1)480(2)
1.5	RH	15	26	41	37.5	150	F872RH155(3)480(2)
1.5	RW	24	19	41	37.5	150	F872RW155(1)480(2)
1.8	RC	16	28.5	41	37.5	150	F872RC185(3)480(2)
1.8	RD	19	32	41	37.5	150	F872RD185(1)480(2)
2.2	RD	19	32	41	37.5	150	F872RD225(1)480(2)
2.5	RP	21	38	41	37.5	150	F872RP255(1)480(2)
2.7	RP	21	38	41	37.5	150	F872RP275(1)480(2)
3.3	RO	24	44	41	37.5	150	F872RO335(1)480(2)
3.9	RO	24	44	41	37.5	150	F872RO395(1)480(2)
4.7	RO	24	44	41	37.5	150	F872RO475(3)480(2)
4.7	RU	30	45	41	37.5	150	F872RU475(1)480(2)
5.6	RU	30	45	41	37.5	150	F872RU565(1)480(2)
Cap Value ( $\mu\text{F}$ )	Size Code	B (mm)	H (mm)	L (mm)	Lead Spacing (p)	dV/dt (V/ $\mu\text{s}$ )	Part Number

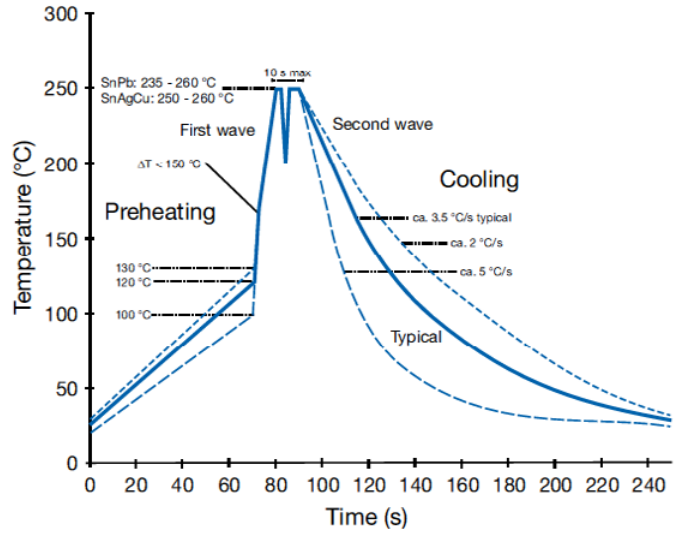
(1)  $M = \pm 20\%$ ,  $K = \pm 10\%$ ,  $J = \pm 5\%$  on request.

(2) Insert lead and packaging code. See table for available options.

(3)  $M = \pm 20\%$  (only available tolerance).

## Soldering Process

The implementation of the RoHS Directive has required the use of SnAuCu (SAC) or SnCu alloys as primary solder. These alloys require a higher liquidus temperature (217°C – 221°C) as compared to SnPb eutectic alloy (183°C). Due to the higher pre-heat and wave temperatures, the heat stress to components has increased considerably. Polypropylene capacitors are especially sensitive to soldering temperature due to the relatively low melting point of polypropylene material (160°C – 170°C). As a result, wave soldering can be destructive, especially to mechanically small polypropylene capacitors with lead spacings of 5 – 10 mm. For more information, please refer to KEMET's Recommended Soldering Profiles or contact a KEMET representative. IEC Publication 61760–1 Edition 2 may also be consulted for general guidelines.



## Marking

- KEMET or KEC
- Series
- Capacitance
- Capacitance tolerance
- Rated voltage
- X1
- Approval marks
- Manufacturing date code
- IEC climatic category
- Passive flammability class

Lateral Marking	Top Marking

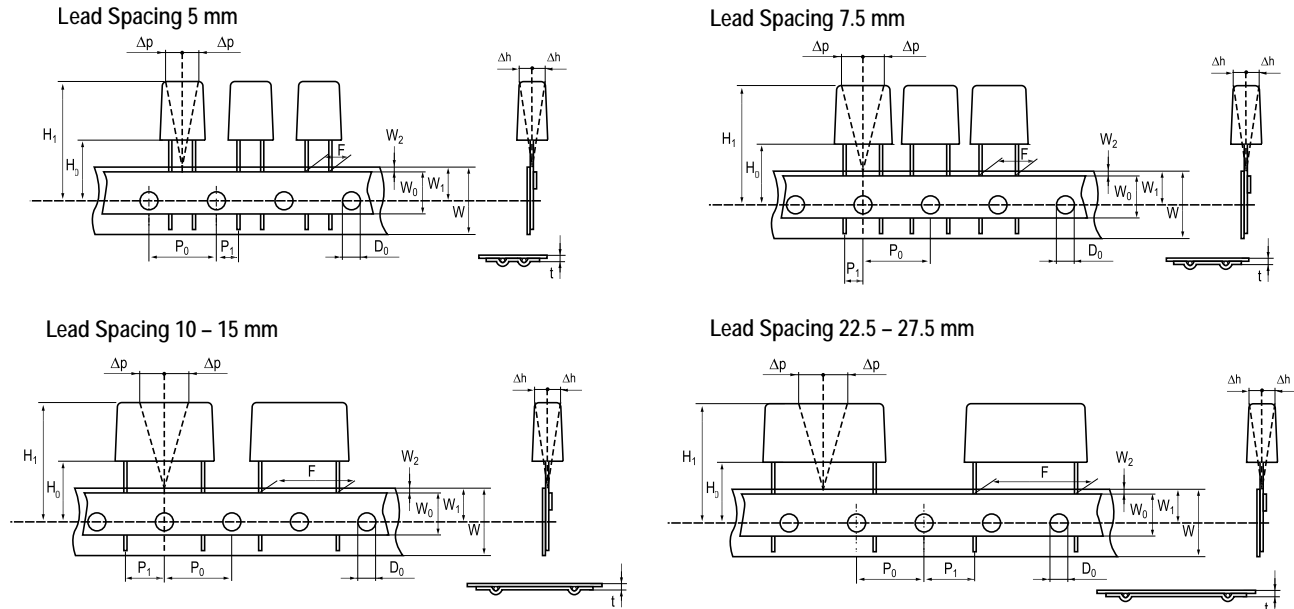
## Packaging Quantities

Size Code	Lead Spacing	Thickness (mm)	Height (mm)	Length (mm)	Bulk Short Leads	Bulk Long Leads	Standard Reel Ø 355 mm	Large Reel Ø 500 mm	Ammo	Pizza
AN	10	3.5	9	13	2200	3200	850	1700	1150	
AG		4	9	13	2000	2200	750	1500	1000	
AK		5	11	13	1300	2000	600	1250	800	
AP		6	12	13	1000	1800	500	1000	680	
AO		7	17	13	600	900	450	900	580	
AL		9.5	7.5	13	1100	2000	300	600	430	
AE		4	8	13	2000	2200	750	1500	1000	
BB	15	4	10	18	1300	1500	750	1500	1000	1411
BC		5	11	18	1000	1250	600	1250	800	1139
BE		5.5	12.5	18	800	1100	550	1100	750	1020
BG		6	12	18	1750	1000	500	1000	680	935
BK		7.5	13.5	18	1000	800	350	800	500	748
BI		6	17.5	18	1000	800	500	1000	680	935
BP		8.5	14.5	18	1000	650	300	700	440	663
BT		9	12.5	18	1000	700	270	650	410	629
BO		7.5	18.5	18	900	600	350	800	500	748
BS		10	16	18	750	550	300	600	380	561
BR		13	12	18	750	520	200	480	280	425
BY		11	19	18	450	400	250	500	340	510
BA		8.5	12.5	18	1000	650	300	700	440	663
BZ		12	20	18	350	300	220	450	330	459
DB	22.5	6	14.5	26	1638	702	300	700	464	660
DI		7	16	26	1188	594	250	550	380	564
DH		8.0	16.0	26	1026	513	240	500	330	492
DJ		8.5	17	26	972	486	250	450	280	468
DM		9	18.5	26	918	459	200	400	300	444
DO		10	18.5	26	810	405	160	350	235	396
DP		11	20	26	756	378	190	350	217	360
DU		13	22	26	540	324	150	300	200	300
DY		15.5	24.5	26	450	270	120	250	170	252

## Packaging Quantities cont'd

Size Code	Lead Spacing	Thickness (mm)	Height (mm)	Length (mm)	Bulk Short Leads	Bulk Long Leads	Standard Reel Ø 355 mm	Large Reel Ø 500 mm	Ammo	Pizza
FB	<b>27.5</b>	9.0	17.0	31.5	816	408				370
FC		11.0	20.0	31.5	672	336				300
FI		13.0	25.0	31.5	480	288				250
FN		14.0	28.0	31.5	352	176				230
FO		17.0	40.0	31.5	216	144				190
FR		17.5	28.0	31.5	256	128				190
FS		19.0	29.0	31.5	256	128				170
FY		22.0	37.0	31.5	168	112				150
FH		21.0	12.5	31.5	392	168				150
FQ		27.5	16.0	31.5	280	120				120
FT		31.0	19.0	31.5	240	120				100
RB	<b>37.5</b>	11.0	22.0	41.0	420	252				210
RF		13.0	24.0	41.0	360	216				175
RH		15.0	26.0	41.0	300	180				154
RC		16.0	28.5	41.0	216	108				140
RD		19.0	32.0	41.0	192	96				119
RP		21.0	38.0	41.0	126	84				105
RO		24.0	44.0	41.0	108	72				91
RU		30.0	45.0	41.0	90	60				77
RV		24.0	15.0	41.0	252	108				91
RW		24.0	19.0	41.0	216	108				91

## Lead Taping & Packaging (IEC 60286–2)



## Taping Specification

Dimensions in mm									Standard IEC 60286–2
Lead spacing	+6/-0.1	F	5	7.5	10	15	22.5	27.5	F
Carrier tape width	+1/-0.5	W	18	18	18	18	18	18	$18^{+1/-0.5}$
Hold-down tape width	MIN	$W_0$	6	6	9	10	10	10	
Position of sprocket hole	+/-0.5	$W_1$	9	9	9	9	9	9	$9^{+0.75/-0.5}$
Distance between tapes	MAX	$W_2$	3	3	3	3	3	3	3
Sprocket hole diameter	+/-0.2	$D_0$	4	4	4	4	4	4	4
Feed hole lead spacing	+/-0.2 <sup>(1)</sup>	$P_0$ <sup>(3)</sup>	12.7	12.7	12.7	12.7	12.7	12.7	12.7
Distance lead - feed hole	+/-0.7	$P_1$	3.85	3.75	7.7	5.2	7.8	5.3	$P^1$
Deviation tape - plane	MAX	$\Delta p$	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Lateral deviation	+/-2	$\Delta h$	2	2	2	2	2	2	2
Total thickness	+/-0.2	$t$	0.7	0.7	0.7	0.7	0.9 <sup>MAX</sup>	0.9 <sup>MAX</sup>	0.9 <sup>MAX</sup>
Sprocket hole/cap body	+/-0.5	$H_0$ <sup>(2)</sup>	$18.5^{+/-0.5}$	$18.5^{+/-0.5}$	$18.5^{+/-0.5}$	$18.5^{+/-0.5}$	$18.5^{+/-0.5}$	$18.5^{+/-0.5}$	$18^{+2/-0}$

(1) Maximum cumulative feed hole error, 1 mm per 20 parts.

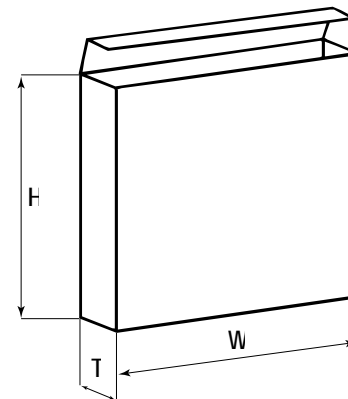
(2) 16.5 mm available on request.

(3) 15 mm available on request ( $F \geq 10$  mm).

## Lead Taping & Packaging (IEC 60286–2) cont'd

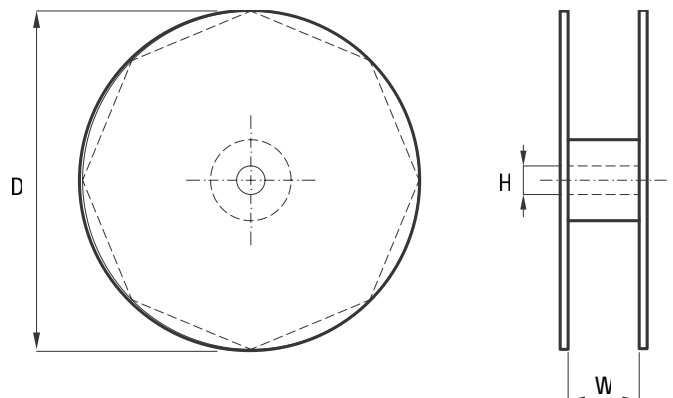
### Ammo Specifications

Series	Dimensions (mm)		
	H	W	T
R4x, R4x+R, R7x, RSB	360	340	59
F5A, F5B, F5D			
F6xx, F8xx			
PHExxx, PMExxx, PMRxxx	330	330	50



### Reel Specifications

Series	Dimensions (mm)		
	D	H	W
R4x, R4x+R, R7x, RSB	355 500	30	55 (Max)
F5A, F5B, F5D		25	
F6xx, F8xx			
PHExxx, PMExxx, PMRxxx	360 500	30	46 (Max)



### Manufacturing Date Code (IEC–60062)

Y = Year, Z = Month			
Year	Code	Month	Code
2000	M	January	1
2001	N	February	2
2002	P	March	3
2003	R	April	4
2004	S	May	5
2005	T	June	6
2006	U	July	7
2007	V	August	8
2008	W	September	9
2009	X	October	O
2010	A	November	N
2011	B	December	D
2012	C		
2013	D		
2014	E		
2015	F		
2016	H		
2017	J		
2018	K		
2019	L		
2020	M		

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Tel: 248-994-1030

Carmel, IN  
Tel: 317-706-6742

### West

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### Mexico

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Paris, France  
Tel: 33-1-4646-1009

Sasso Marconi, Italy  
Tel: 39-051-939111

Milan, Italy  
Tel: 39-02-57518176

Rome, Italy  
Tel: 39-06-23231718

Madrid, Spain  
Tel: 34-91-804-4303

### Central Europe

Landsberg, Germany  
Tel: 49-8191-3350800

Dortmund, Germany  
Tel: 49-2307-3619672

Kwidzyn, Poland  
Tel: 48-55-279-7025

### Northern Europe

Bishop's Stortford, United Kingdom  
Tel: 44-1279-757201

Weymouth, United Kingdom  
Tel: 44-1305-830747

Coatbridge, Scotland  
Tel: 44-1236-434455

Färjestaden, Sweden  
Tel: 46-485-563934

Espoo, Finland  
Tel: 358-9-5406-5000

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### Northeast Asia

Hong Kong  
Tel: 852-2305-1168

Shenzhen, China  
Tel: 86-755-2518-1306

Beijing, China  
Tel: 86-10-5829-1711

Shanghai, China  
Tel: 86-21-6447-0707

Taipei, Taiwan  
Tel: 886-2-27528585

### Southeast Asia

Singapore  
Tel: 65-6586-1900

Penang, Malaysia  
Tel: 60-4-6430200

Bangalore, India  
Tel: 91-806-53-76817

*Note: KEMET reserves the right to modify minor details of internal and external construction at any time in the interest of product improvement. KEMET does not assume any responsibility for infringement that might result from the use of KEMET Capacitors in potential circuit designs. KEMET is a registered trademark of KEMET Electronics Corporation.*

## Other KEMET Resources

Tools	
Resource	Location
Configure A Part: CapEdge	<a href="http://capacitoredge.kemet.com">http://capacitoredge.kemet.com</a>
SPICE & FIT Software	<a href="http://www.kemet.com/spice">http://www.kemet.com/spice</a>
Search Our FAQs: KnowledgeEdge	<a href="http://www.kemet.com/keask">http://www.kemet.com/keask</a>

Product Information	
Resource	Location
Products	<a href="http://www.kemet.com/products">http://www.kemet.com/products</a>
Technical Resources (Including Soldering Techniques)	<a href="http://www.kemet.com/technicalpapers">http://www.kemet.com/technicalpapers</a>
RoHS Statement	<a href="http://www.kemet.com/rohs">http://www.kemet.com/rohs</a>
Quality Documents	<a href="http://www.kemet.com/qualitydocuments">http://www.kemet.com/qualitydocuments</a>

Product Request	
Resource	Location
Sample Request	<a href="http://www.kemet.com/sample">http://www.kemet.com/sample</a>
Engineering Kit Request	<a href="http://www.kemet.com/kits">http://www.kemet.com/kits</a>

Contact	
Resource	Location
Website	<a href="http://www.kemet.com">www.kemet.com</a>
Contact Us	<a href="http://www.kemet.com/contact">http://www.kemet.com/contact</a>
Investor Relations	<a href="http://www.kemet.com/ir">http://www.kemet.com/ir</a>
Call Us	1-877-MyKEMET
Twitter	<a href="http://twitter.com/kemetcapacitors">http://twitter.com/kemetcapacitors</a>

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Although we design and manufacture our products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

Class X1

Polypropylene Metallized Film EMI Suppression Capacitors – F872 Series, Class X1, 480 VAC

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