

**R47 Series Polypropylene Metallized Film, Class X2, 520 VAC****KEMET**  
CHARGED®**Overview**

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

**Applications**

For worldwide use in electromagnetic interference suppression in all X2 and across-the-line applications.

**Benefits**

- Approvals: ENEC, UL, cUL
- Rated voltage: 520 VAC 50/60 Hz
- Capacitance range: 0.0047 – 2.2  $\mu$ F
- Lead spacing: 10.0 – 37.5 mm
- Capacitance tolerance:  $\pm$ 20%,  $\pm$ 10%,  $\pm$ 5% on request
- Climatic category 40/85/56, 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 +85°C
- 100% screening factory test at 2,700 VDC/1,700 VAC

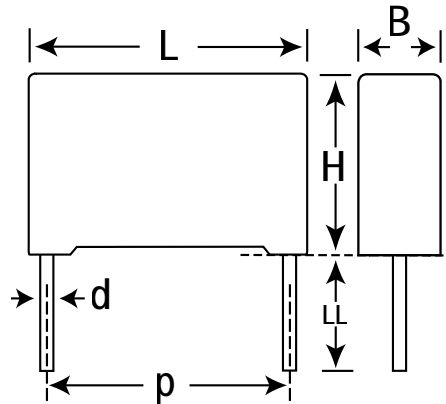
**Part Number System**

R47	5	F	1470	00	01	M
Series	Rated Voltage (VAC)	Lead Spacing (mm)	Capacitance Code (pF)	Lead and Packaging Code	Internal Use	Capacitance Tolerance
X2, Metallized Polypropylene	5 = 520	F = 10.0 I = 15.0 N = 22.5 R = 27.5 W = 37.5	Digits 2-4 indicate the first three digits of the capacitance value. First digit indicates the number of zeros to be added.	See Ordering Options Table	01, 02 (Standard)	J = $\pm$ 5% K = $\pm$ 10% M = $\pm$ 20%

## 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	00
	Ammo Pack	$H_0 = 18.5 \pm 0.5$	DQ
	<b>Other Lead and Packaging Options</b>		
	Tape & Reel (Large Reel)	$H_0 = 18.5 \pm 0.5$	CK
	Bulk (Bag)– Long Leads	25 +2/-1	50
	Bulk (Bag)– Max Length Leads	30 +5/-0	40
15	<b>Standard Lead and Packaging Options</b>		
	Bulk (Bag)– Short Leads	4 +2/-0	00
	Ammo Pack	$H_0 = 18.5 \pm 0.5$	DQ
	<b>Other Lead and Packaging Options</b>		
	Tape & Reel (Large Reel)	$H_0 = 18.5 \pm 0.5$	CK
	Bulk (Bag)– Long Leads	25 +2/-1	50
	Bulk (Bag)– Max Length Leads	30 +5/-0	40
	Pizza Pack	4 +2/-0	BB
22.5	<b>Standard Lead and Packaging Options</b>		
	Bulk (Tray)– Short Leads	4 +2/-0	00
	Ammo Pack	$H_0 = 18.5 \pm 0.5$	DQ
	<b>Other Lead and Packaging Options</b>		
	Tape & Reel (Large Reel)	$H_0 = 18.5 \pm 0.5$	CK
	Bulk (Tray)– Long Leads	25 +2/-1	50
	Bulk (Tray)– Max Length Leads	30 +5/-0	40
Pizza Pack	4 +2/-0	BB	
27.5	<b>Standard Lead and Packaging Options</b>		
	Bulk (Tray)– Short Leads	4 +2/-0	00
	<b>Other Lead and Packaging Options</b>		
	Tape & Reel (Large Reel)	$H_0 = 18.5 \pm 0.5$	CK
	Bulk (Tray)– Long Leads	25 +2/-1	50
37.5	<b>Standard Lead and Packaging Options</b>		
	Bulk (Tray)– Short Leads	4 +2/-0	00
	<b>Other Lead and Packaging Options</b>		
	Bulk (Tray)– Long Leads	25 +2/-1	50
	Bulk (Tray)– Max Length Leads	30 +5/-0	40

## Dimensions – Millimeters



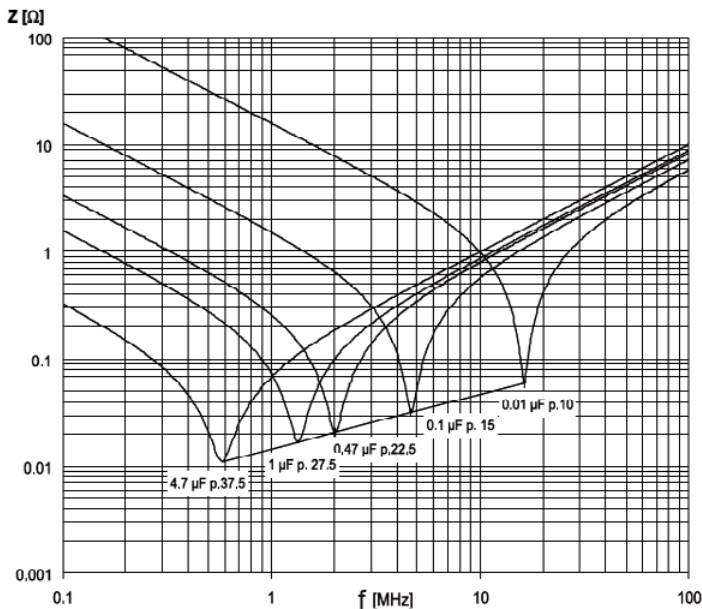
p		B		H		L		d	
Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance
10.0	+/-0.4	4.0	+0.2/-0	9.0	+0.1/-0	13.0	+0.2/-0	0.6	+/-0.05
10.0	+/-0.4	5.0	+0.2/-0	11.0	+0.1/-0	13.0	+0.2/-0	0.6	+/-0.05
10.0	+/-0.4	6.0	+0.2/-0	12.0	+0.1/-0	13.0	+0.2/-0	0.6	+/-0.05
15.0	+/-0.4	5.0	+0.2/-0	11.0	+0.1/-0	18.0	+0.3/-0	0.6	+/-0.05
15.0	+/-0.4	6.0	+0.2/-0	12.0	+0.1/-0	18.0	+0.3/-0	0.6	+/-0.05
15.0	+/-0.4	6.0	+0.2/-0	17.5	+0.1/-0	18.0	+0.3/-0	0.6	+/-0.05
15.0	+/-0.4	7.5	+0.2/-0	13.5	+0.1/-0	18.0	+0.5/-0	0.6	+/-0.05
15.0	+/-0.4	7.5	+0.2/-0	18.5	+0.1/-0	18.0	+0.5/-0	0.8	+/-0.05
15.0	+/-0.4	8.5	+0.2/-0	14.5	+0.1/-0	18.0	+0.5/-0	0.6	+/-0.05
15.0	+/-0.4	9.0	+0.2/-0	12.5	+0.1/-0	18.0	+0.5/-0	0.8	+/-0.05
15.0	+/-0.4	10.0	+0.2/-0	16.0	+0.1/-0	18.0	+0.5/-0	0.8	+/-0.05
15.0	+/-0.4	11.0	+0.2/-0	19.0	+0.1/-0	18.0	+0.5/-0	0.8	+/-0.05
15.0	+/-0.4	13.0	+0.2/-0	12.0	+0.1/-0	18.0	+0.5/-0	0.8	+/-0.05
22.5	+/-0.4	6.0	+0.2/-0	15.0	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
22.5	+/-0.4	6.5	+0.2/-0	13.5	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
22.5	+/-0.4	7.0	+0.2/-0	16.0	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
22.5	+/-0.4	8.5	+0.2/-0	17.0	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
22.5	+/-0.4	10.0	+0.2/-0	18.5	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
22.5	+/-0.4	11.0	+0.2/-0	20.0	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
22.5	+/-0.4	13.0	+0.2/-0	22.0	+0.1/-0	26.5	+0.3/-0	0.8	+/-0.05
27.5	+/-0.4	9.0	+0.2/-0	17.0	+0.1/-0	32.0	+0.3/-0	0.8	+/-0.05
27.5	+/-0.4	11.0	+0.2/-0	20.0	+0.1/-0	32.0	+0.3/-0	0.8	+/-0.05
27.5	+/-0.4	13.0	+0.2/-0	22.0	+0.1/-0	32.0	+0.3/-0	0.8	+/-0.05
27.5	+/-0.4	14.0	+0.2/-0	28.0	+0.1/-0	32.0	+0.3/-0	0.8	+/-0.05
27.5	+/-0.4	18.0	+0.2/-0	33.0	+0.1/-0	32.0	+0.3/-0	0.8	+/-0.05
27.5	+/-0.4	22.0	+0.2/-0	37.0	+0.1/-0	32.0	+0.3/-0	0.8	+/-0.05
37.5	+/-0.4	11.0	+0.3/-0	22.0	+0.1/-0	41.5	+0.3/-0	1	+/-0.05
37.5	+/-0.4	13.0	+0.3/-0	24.0	+0.1/-0	41.5	+0.3/-0	1	+/-0.05
37.5	+/-0.4	16.0	+0.3/-0	28.5	+0.1/-0	41.5	+0.3/-0	1	+/-0.05
37.5	+/-0.4	19.0	+0.3/-0	32.0	+0.1/-0	41.5	+0.3/-0	1	+/-0.05
37.5	+/-0.4	20.0	+0.3/-0	40.0	+0.1/-0	41.5	+0.3/-0	1	+/-0.05

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

## Performance Characteristics

Rated Voltage	520 VAC 50/60 Hz	
Capacitance Range	0.0047 – 2.2 $\mu$ F	
Capacitance Tolerance	$\pm$ 20%, $\pm$ 10%, $\pm$ 5% on request	
Temperature Range	-40°C to +85°C	
Climatic Category	40/85/56	
Approvals	ENEC, UL, cUL, CQC	
Dissipation Factor	Maximum Values at +23°C	
	1 kHz	0.1%
Test Voltage Between Terminals	The 100% screening factory test is carried out at 2,700 VDC/1,700 VAC. 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:	
	$C \leq 0.33 \mu\text{F}$	$\geq 50,000 \text{ M}\Omega$
	$C > 0.33 \mu\text{F}$	$\geq 30,000 \text{ M}\Omega \cdot \mu\text{F}$
In DC Applications	Recommended Voltage $\leq 1,000 \text{ VDC}$	



## Impedance Graph



## Environmental Test Data

Test	IEC Publication	Procedure
Endurance	EN/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 2.5 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	CA08.00101
	UL 1414 (up to 1 µF, 85°C, 250 VAC)	E97797
	UL 1283 (440 VAC 110°C)	E85238

## Environmental Compliance

All KEMET EMI capacitors are RoHS Compliant.



RoHS Compliant

**Table 1 – Ratings & Part Number Reference**

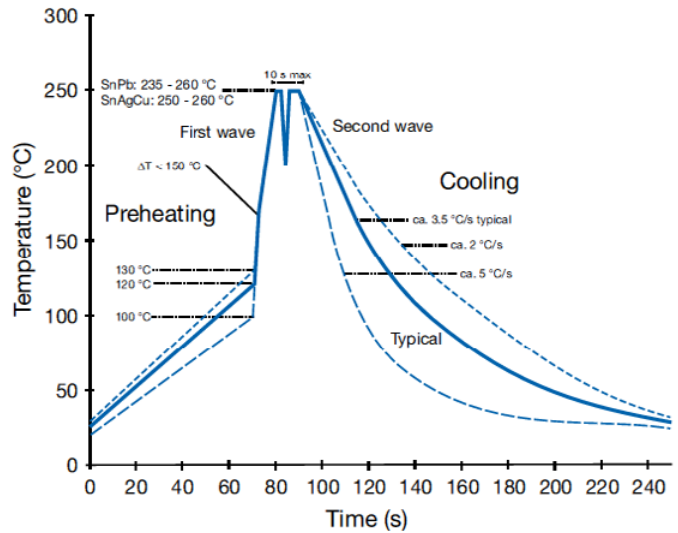
Cap Value (µF)	Dimensions in mm			Lead Spacing (p)	dV/dt (V/µs)	New KEMET Part Number	Legacy Part Number
	B	H	L				
0.0047	4.0	9.0	13.0	10.0	750	475F1470(1)01(2)	R475F1470(1)01(2)
0.0068	5.0	11.0	13.0	10.0	750	475F1680(1)01(2)	R475F1680(1)01(2)
0.0082	6.0	12.0	13.0	10.0	750	475F1820(1)01(2)	R475F1820(1)01(2)
0.010	6.0	12.0	13.0	10.0	750	475F2100(1)01(2)	R475F2100(1)01(2)
0.010	5.0	11.0	18.0	15.0	600	475I2100(1)01(2)	R475I2100(1)01(2)
0.012	5.0	11.0	18.0	15.0	600	475I2120(1)01(2)	R475I2120(1)01(2)
0.015	5.0	11.0	18.0	15.0	600	475I2150(1)01(2)	R475I2150(1)01(2)
0.018	5.0	11.0	18.0	15.0	600	475I2180(1)01(2)	R475I2180(1)01(2)
0.022	6.0	12.0	18.0	15.0	600	475I2220(1)01(2)	R475I2220(1)01(2)
0.027	6.0	12.0	18.0	15.0	600	475I2270(1)01(2)	R475I2270(1)01(2)
0.033	6.0	12.0	18.0	15.0	600	475I2330(1)01(2)	R475I2330(1)01(2)
0.039	7.5	13.5	18.0	15.0	600	475I2390(1)01(2)	R475I2390(1)01(2)
0.047	7.5	13.5	18.0	15.0	600	475I2470(1)01(2)	R475I2470(1)01(2)
0.047	6.0	17.5	18.0	15.0	600	475I2470(1)02(2)	R475I2470(1)02(2)
0.047	9.0	12.5	18.0	15.0	600	475I2470(1)03(2)	R475I2470(1)03(2)
0.056	8.5	14.5	18.0	15.0	600	475I2560(1)01(2)	R475I2560(1)01(2)
0.068	10.0	16.0	18.0	15.0	600	475I2680(1)01(2)	R475I2680(1)01(2)
0.068	7.5	18.5	18.0	15.0	600	475I2680(1)02(2)	R475I2680(1)02(2)
0.068	13.0	12.0	18.0	15.0	600	475I2680(1)03(2)	R475I2680(1)03(2)
0.082	10.0	16.0	18.0	15.0	600	475I2820(1)01(2)	R475I2820(1)01(2)
0.10	11.0	19.0	18.0	15.0	600	475I3100(1)01(2)	R475I3100(1)01(2)
0.047	6.0	15.0	26.5	22.5	300	475N2470(1)01(2)	R475N2470(1)01(2)
0.047	6.5	13.5	26.5	22.5	300	475N2470(1)02(2)	R475N2470(1)02(2)
0.068	6.0	15.0	26.5	22.5	300	475N2680(1)01(2)	R475N2680(1)01(2)
0.10	7.0	16.0	26.5	22.5	300	475N3100(1)01(2)	R475N3100(1)01(2)
0.12	8.5	17.0	26.5	22.5	300	475N3120(1)01(2)	R475N3120(1)01(2)
0.15	10.0	18.5	26.5	22.5	300	475N3150(1)01(2)	R475N3150(1)01(2)
0.18	10.0	18.5	26.5	22.5	300	475N3180(1)01(2)	R475N3180(1)01(2)
0.22	11.0	20.0	26.5	22.5	300	475N3220(1)01(2)	R475N3220(1)01(2)
0.27	13.0	22.0	26.5	22.5	300	475N3270(1)01(2)	R475N3270(1)01(2)
0.33	13.0	22.0	26.5	22.5	300	475N3330(1)01(2)	R475N3330(1)01(2)
0.15	9.0	17.0	32.0	27.5	225	475R3150(1)01(2)	R475R3150(1)01(2)
0.18	9.0	17.0	32.0	27.5	225	475R3180(1)01(2)	R475R3180(1)01(2)
0.22	9.0	17.0	32.0	27.5	225	475R3220(1)01(2)	R475R3220(1)01(2)
0.27	9.0	17.0	32.0	27.5	225	475R3270(1)02(2)	R475R3270(1)02(2)
0.33	11.0	20.0	32.0	27.5	225	475R3330(1)02(2)	R475R3330(1)02(2)
0.39	11.0	20.0	32.0	27.5	225	475R3390(1)01(2)	R475R3390(1)01(2)
0.47	13.0	22.0	32.0	27.5	225	475R3470(1)01(2)	R475R3470(1)01(2)
0.56	13.0	22.0	32.0	27.5	225	475R3560(1)01(2)	R475R3560(1)01(2)
0.68	14.0	28.0	32.0	27.5	225	475R3680(1)01(2)	R475R3680(1)01(2)
0.82	18.0	33.0	32.0	27.5	225	475R3820(1)01(2)	R475R3820(1)01(2)
1.0	18.0	33.0	32.0	27.5	225	475R4100(1)01(2)	R475R4100(1)01(2)
1.2	18.0	33.0	32.0	27.5	225	475R4120(1)01(2)	R475R4120(1)01(2)
1.5	22.0	37.0	32.0	27.5	225	475R4150(1)01(2)	R475R4150(1)01(2)
0.47	11.0	22.0	41.5	37.5	150	475W3470(1)01(2)	R475W3470(1)01(2)
0.56	11.0	22.0	41.5	37.5	150	475W3560(1)01(2)	R475W3560(1)01(2)
0.68	13.0	24.0	41.5	37.5	150	475W3680(1)01(2)	R475W3680(1)01(2)
0.82	16.0	28.5	41.5	37.5	150	475W3820(1)01(2)	R475W3820(1)01(2)
1.0	16.0	28.5	41.5	37.5	150	475W4100(1)01(2)	R475W4100(1)01(2)
1.2	19.0	32.0	41.5	37.5	150	475W4120(1)01(2)	R475W4120(1)01(2)
1.5	19.0	32.0	41.5	37.5	150	475W4150(1)01(2)	R475W4150(1)01(2)
1.8	20.0	40.0	41.5	37.5	150	475W4180(1)01(2)	R475W4180(1)01(2)
2.2	20.0	40.0	41.5	37.5	150	475W4220(1)01(2)	R475W4220(1)01(2)
Cap Value (µF)	B (mm)	H (mm)	L (mm)	Lead Spacing (p)	dV/dt (V/µs)	New KEMET Part Number	Legacy Part Number

(1) Insert ordering code for lead type and packaging. See table for available options.

(2) M = ±20%, K = ±10%, J = ±5% on request.

## 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.



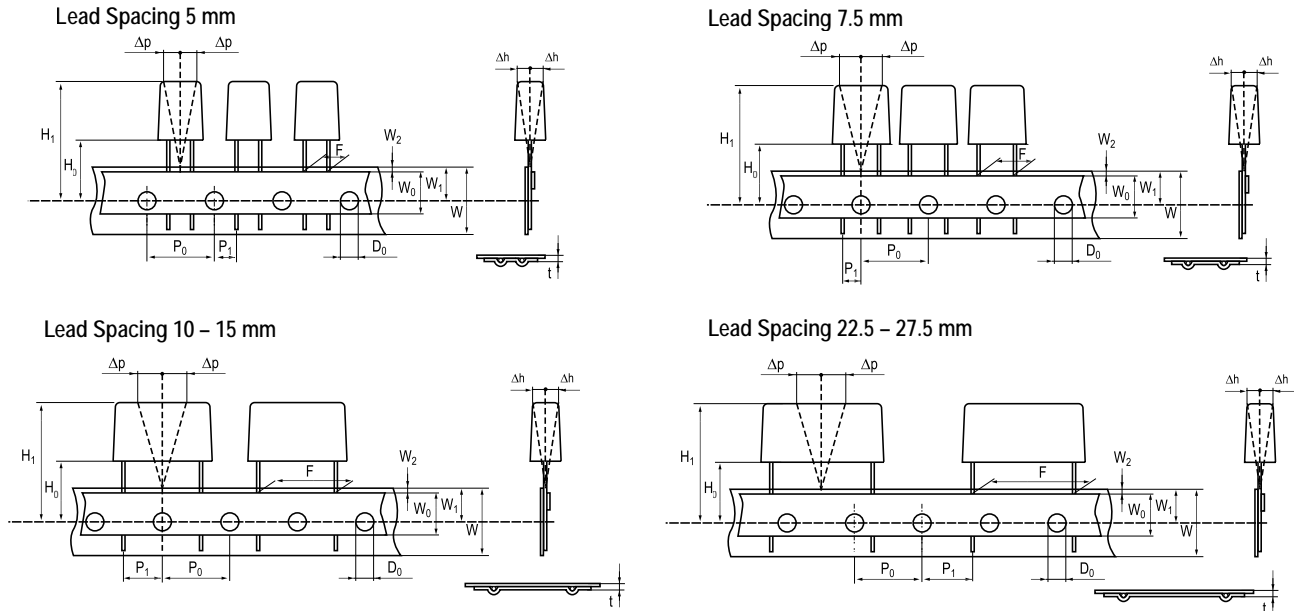
## Marking

- KEMET's logo
- Series
- Capacitance
- Capacitance tolerance
- Rated voltage
- Capacitor class
- Approval marks
- Manufacturing date code
- IEC climatic category
- Passive flammability class
- Manufacturing plant

## Packaging Quantities

Lead Spacing (mm)	Thickness (mm)	Height (mm)	Length (mm)	Bulk Short Leads	Bulk Long Leads	Standard Reel ∅ 355 mm	Large Reel ∅ 500 mm	Ammo	Pizza
10	4	9	13	2000	2200	750	1500	1000	
	5	11	13	1300	2000	600	1250	800	
	6	12	13	1000	1800	500	1000	680	
15	4	10	18	2500	1500	750	1500	1000	1411
	5	11	18	1000	1250	600	1250	800	1139
	6	12	18	1750	1000	500	1000	680	935
	7.5	13.5	18	1000	800	350	800	500	748
	6	17.5	18	1000	800	500	1000	680	935
	7.5	14.5	18	1000	750	350	800	500	748
	8.5	14.5	18	1000	650	300	700	440	663
	9	12.5	18	1000	700	270	650	410	629
	7.5	18.5	18	900	600	350	800	500	748
	10	16	18	750	550	300	600	380	561
	13	12	18	750	520	200	480	280	425
	11	19	18	450	400	250	500	340	510
22.5	6	15	26.5	1404	702	300	700	464	660
	7	16	26.5	1188	594	250	550	380	564
	8.5	17	26.5	972	486	250	450	280	468
	10	18.5	26.5	810	405	160	350	235	396
	11	20	26.5	630	378	190	350	217	360
	13	22	26.5	540	324	150	300	200	300
27.5	9	17	32	816	408		450		
	10	20	32	600	360		350		
	11	20	32	560	336		350		
	13	22	32	480	288		300		
	13	25	32	480	288				
	14	28	32	352	176				
	15	24.5	32	400	240				
	18	33	32	256	128				
	22	37	32	168	112				
37.5	11	22	41.5	420	252				
	13	24	41.5	360	216				
	16	28.5	41.5	216	108				
	19	32	41.5	192	96				
	20	40	41.5	126	84				
	24	44	41.5	108	72				
	30	45	41.5	90	60				

## 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 <sup>+1/-0.5</sup>
Hold-down tape width	MIN	W <sub>0</sub>	6	6	9	10	10	10	
Position of sprocket hole	+/-0.5	W <sub>1</sub>	9	9	9	9	9	9	9 <sup>+0.75/-0.5</sup>
Distance between tapes	MAX	W <sub>2</sub>	3	3	3	3	3	3	3
Sprocket hole diameter	+/-0.2	D <sub>0</sub>	4	4	4	4	4	4	4
Feed hole lead spacing	+/-0.2 <sup>(1)</sup>	P <sub>0</sub> <sup>(3)</sup>	12.7	12.7	12.7	12.7	12.7	12.7	12.7
Distance lead - feed hole	+/-0.7	P <sub>1</sub>	3.85	3.75	7.7	5.2	7.8	5.3	P <sup>1</sup>
Deviation tape - plane	MAX	Δp	1.3	1.3	1.3	1.3	1.3	1.3	1.3
Lateral deviation	+/-2	Δh	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 <sub>0</sub> <sup>(2)</sup>	18.5 <sup>+/-0.5</sup>	18.5 <sup>+/-0.5</sup>	18.5 <sup>+/-0.5</sup>	18.5 <sup>+/-0.5</sup>	18.5 <sup>+/-0.5</sup>	18.5 <sup>+/-0.5</sup>	18 <sup>+2/-0</sup>

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

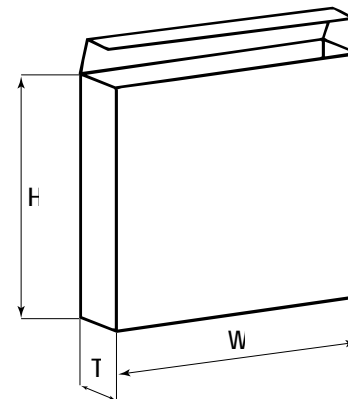
(2) 16.5 mm available on request.

(3) 15 mm available on request (F ≥ 10 mm).

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

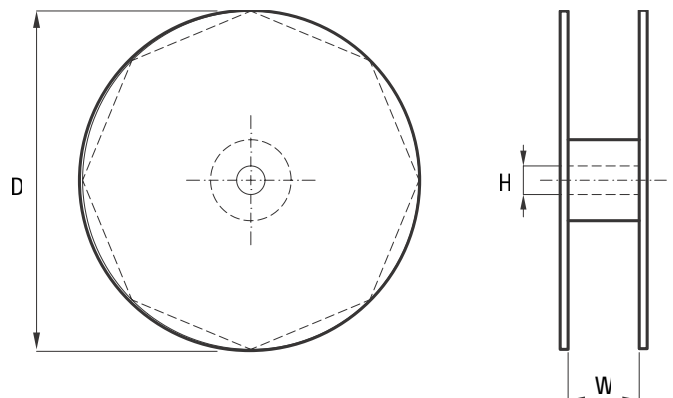
### Ammo Specifications

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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Milan, Italy  
Tel: 39-02-57518176

Rome, Italy  
Tel: 39-06-23231718

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

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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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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>

## Disclaimer

All product specifications, statements, information and data (collectively, the "Information") are subject to change without notice.

All Information given herein is believed to be accurate and reliable, but is presented without guarantee, warranty, or responsibility of any kind, expressed or implied.

Statements of suitability for certain applications are based on our knowledge of typical operating conditions for such applications, but are not intended to constitute – and we specifically disclaim – any warranty concerning suitability for a specific customer application or use. This Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by us with reference to the use of our products is given gratis, and we assume no obligation or liability for the advice given or results obtained.

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.

