# RSB Series, 5 mm Lead Spacing, 50 – 630 VDC (Automotive Grade)



#### **Overview**

The RSB Series is constructed of metallized polyester film (stacked technology) with radial leads of tinned wire. Radial leads are electrically welded to the contact metal layer on the ends of the capacitor winding. The capacitor is encapsulated in a self-extinguishing solvent resistant plastic case with thermosetting resin material meeting the UL 94V–0 requirements.

Automotive grade devices are available and meet the demanding Automotive Electronics Council's AEC–Q200 qualification requirements.

## **Applications**

Typical applications include high performance, high temperature, blocking, coupling, decoupling for a signal from DC to high frequency, pulse, logic and timing circuit, lamp capacitor for electronic compact lamps, inverter for LCD monitors, automotive DC motor suppression. Not suitable for across-the-line application (see Suppressor Capacitors).

#### **Benefits**

Voltage range: 50 – 630 VDC
Capacitance range: 0.001 – 2.2 μF

· Lead spacing: 5 mm

 Capacitance tolerance: ±20%, ±10% standard, ±5% on request

• Climatic category: 55/125/56

Operating temperature range of -55°C to +125°C

· RoHS Compliant and lead-free terminations

Tape and reel packaging in accordance with IEC 60286–2

Self-healing

· Automotive (AEC-Q200) grades available

## **Part Number System**

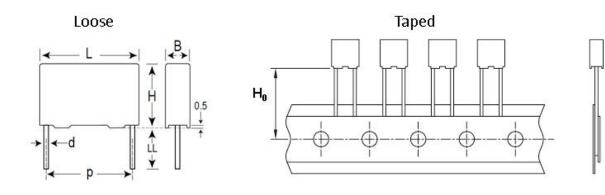
RSB	D	С	3100	AA	00	K
Series	Rated Voltage (VDC)	Length (mm)	Capacitance Code (pF)	Lead and Packaging Code	Internal Use	Capacitance Tolerance
Metallized Polyester	C = 50 D = 63 E = 100 I = 250 M = 400 W = 500 P = 630	C = 5.0	Digits 2-4 indicate the first three digits of the capacitance value. First digit indicates the number of zeros to be added.	See Ordering Options Table	30 50 60 70	J = ±5% K = ±10% M = ±20%



## **Ordering Options Table**

Lead Spacing Nominal (mm)	Type of Leads and Packaging	LL Lead Length (mm)	Lead and Packaging Code
	Standard Lead and Packaging Options		
	Bulk (Bag)–Short Leads	4 +1.5/-0	AA
	Ammo Pack	H <sub>0</sub> =18.5 +/- 0.5	DQ
	Other Lead and Packaging Options		
	Tape & Reel (Standard Reel)	H <sub>0</sub> =18.5 +/- 0.5	CK
5	Bulk (Bag)-Short Leads	2.7 +0.5/-0	JA
	Bulk (Bag)-Short Leads	3.5 +0.5/-0	JB
	Bulk (Bag)-Short Leads	10 +/- 1	JC
	Bulk (Bag)-Short Leads	3.2 +0.3/-0.2	JH
	Bulk (Bag)-Long Leads	21 +/- 1	JG
	Bulk (Bag)-Long Leads	17 +1/-2	Z3
	Bulk (Bag)-Long Leads	30 +5/-0	40

## **Dimensions - Millimeters**



ı	0	В		Н		L		d	
Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance	Nominal	Tolerance
5.0	+/-0.4	2.5	+0.1	6.5	+0.1	7.2	+0.2	0.6	+/-0.05
5.0	+/-0.4	3.5	+0.1	7.5	+0.1	7.2	+0.2	0.6	+/-0.05
5.0	+/-0.4	4.5	+0.1	9.5	+0.1	7.2	+0.3	0.6	+/-0.05
5.0	+/-0.4	5.0	+0.1	10.0	+0.1	7.2	+0.3	0.6	+/-0.05
5.0	+/-0.4	6.0	+0.1	11.0	+0.1	7.2	+0.3	0.6	+/-0.05
		Note: See Ordering Options Table for lead length (LL/H.) options.							



## **Performance Characteristics**

Dielectric	Polyester film (	Polyester film (polyethylene terephthalate).						
Plates	, ,	osited by evapora						
Winding	Non-inductive t	Non-inductive type.						
Leads	Tinned wire.	**						
Protection	Plastic case, th	ermosetting resin	filled. Box materia	l is solvent resistan	t and flame retar	dant according to	UL94.	
Related Documents	IEC 60384-2							
Rated Voltage V <sub>R</sub> (VDC)	50	63	100	250	400	500	630	
Rated Voltage V <sub>R</sub> (VAC)	30	40	63	160	200	220	220	
Capacitance Range (µF)	2.2	0.1 – 1.5	0.0047 – 0.47	0.001 – 0.15	0.001 – 0.047	0.001 – 0.015	0.001 - 0.01	
Capacitance Values	E6 series (IEC	60063) measured	@ 1 kHz and +20	±1°C			·	
Capacitance Tolerance	±5% on reques	t, ±10%, ±20%						
Operating Temperature Range	-55°C to 125°C							
Rated Temperature T <sub>R</sub>	+85°C							
Voltage Derating	Above +85°C DC and AC voltage derating is 1.25%/°C							
	55/125/56 IEC	60068-1						
Climatic Category	Average relative humidity ≤75%							
Cilifiatic Category	RH = 95% for 30 days per year							
	RH = 85% for further days limited by average value per year							
Test Voltage	1.6 x V <sub>R</sub> VDC fo	or 2 seconds (betw	veen terminations)	@ +25°C ±5°C				
Capacitance Drift	Maximum 3% a	ifter a 2 year stora	ge period at a tem	perature of +10°C	to +40°C and a re	elative humidity o	f 40% to 60%	
	Operational life >200,000 hours							
Reliability (Reference MIL-HDBK-217)	Failure rate ≤ 1	FIT, T = +40°C, V	$' = 0.5 \text{ x V}_{R}$					
	Failure criteria: open or short circuit, cap. change > 10%, DF 2 times the catalog limits, IR < 0.005 x initial limit							
Maximum Pulse Steepness	dV/dt according to Table 1. For peak to peak voltages lower than rated voltage (Vpp $<$ V $_R$ ), the specified dv/dt can be multiplied by the factor V $_R$ /Vpp							
Temperature Coefficient	+400 (±200)pp	m/°C at 1 kHz						
Self Inductance (Lead Length ~ 2 mm)	Approximately	7 nH. Maximum 1r	nH per 1 mm lead	and capacitor lengt	h.			



### **Performance Characteristics cont'd**

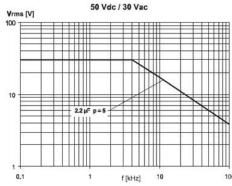
	Maximum Values @ 25°C ±5°C						
	Frequency		C ≤ 0.1 µF	C > 1 µF			
Dissipation Factor tanδ	1 kHz		0.80%	0.80%			
	10 kHz		1.20%	1.20%			
	100 kHz		2.50%	_			
	Measured @ +25°C ±5°C, according to IEC 60384-2						
	Minimum Values Between Terminals						
Insulation Resistance	Voltage Charge/Time	C ≤ 0.33 µF	0.33 μF < C ≤ 1.0 μF	C > 1.0 µF			
	50 VDC for V <sub>R</sub> ≤ 100 VDC 1 minute	≥ 15,000 MΩ	≥ 5,000 MΩ • µF	≥ 1,000 MΩ • µF			
	100 VDC for V <sub>R</sub> > 100 VDC 1 minute		≥ 30,000 MΩ				

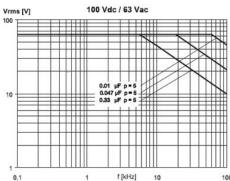
## Qualification

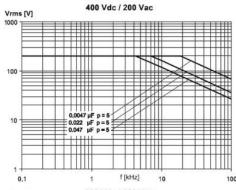
Automotive Grade products meet or exceed the requirements outlined by the Automotive Electronics Council. Details regarding test methods and conditions are referenced in document AEC–Q200, Stress Test Qualification for Passive Components. For additional information regarding the Automotive Electronics Council and AEC–Q200, please visit their website at www.aecouncil.com.

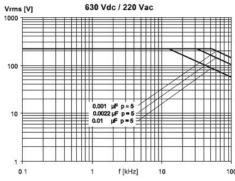


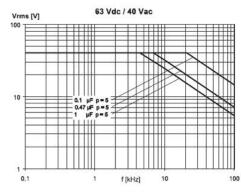
# Maximum Voltage ( $V_{rms}$ ) vs. Frequency (Sinusoidal Waveform/Th $\leq$ 40°C) Lead Spacing 5 mm

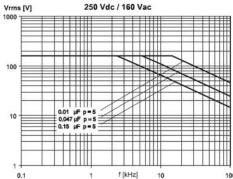


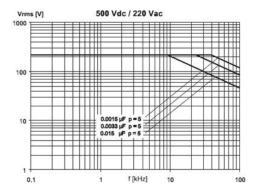






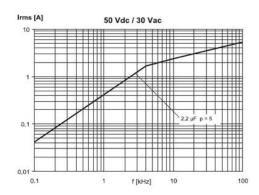


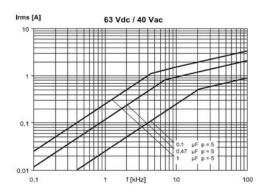


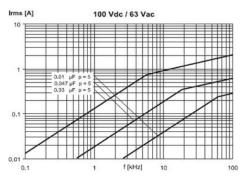


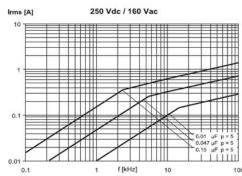


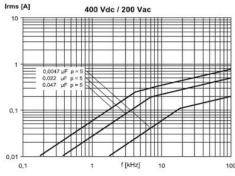
# Maximum Current ( $I_{rms}$ ) vs. Frequency (Sinusoidal Waveform/Th $\leq$ 40°C) Lead Spacing 5 mm

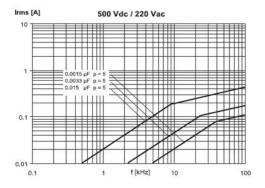


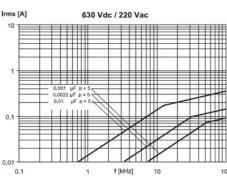














## **Environmental Test Data**

Test Cor	nditions:	Performances
Temperature: Relative humidity (RH): Test duration:	+40°C ±2°C 93% ±2% 56 days	$ \Delta$ C/C  ≤ 5%, $\Delta$ tan $\delta$ ≤ 0.005 @ 1 kHz IR after test ≥ 50% of initial limit
Test Co	nditions	Performances
Temperature: Voltage applied: Test duration:	+125°C ±2°C 1.25 x V <sub>C</sub> 2,000 hours	$ \Delta$ C/C  ≤ 5%, Δ tanδ ≤ 0.003 @10 kHz for C ≤ 1μF Δ tanδ ≤ 0.002 @ 1 kHz for C > 1μF IR after test ≥ 50% of initial limit
Test Conditions		Performances
Solder bath temperature: Dipping time (with heat	260°C ±5°C	Δ C/C  ≤ 2%, Δ tanδ ≤ 0.003 @10 kHz for C ≤ 1μF Δ tanδ ≤ 0.002 @ 1 kHz for C > 1μF IR after test ≥ initial limit
	Temperature: Relative humidity (RH): Test duration:  Test Col  Temperature: Voltage applied: Test duration:  Test Col  Solder bath temperature:	Relative humidity (RH): Test duration:  Test Conditions  Temperature: Voltage applied: Test duration:  Test Conditions  Test Conditions  Test Conditions  260°C ±5°C  Dipping time (with heat

# **Environmental Compliance**

All KEMET MKT capacitors are RoHS Compliant.





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

1/7.0		Capacitance	Dime	nsions i	n mm	Lead	dV/dt	Maximum K	New KEMET	Legacy Part
VDC	VAC	Value (µF)	В	Н	L	Spacing	(V/µs)	(V²/μs)	Part Number	Number
50	30	2.2	6.0	11.0	7.2	5.0	200	20000	SBCC4220(1)10(2)	RSBCC4220(1)10(2)
63	40	0.10	2.5	6.5	7.2	5.0	250	31500	SBDC3100(1)00(2)	RSBDC3100(1)00(2)
63	40	0.15	2.5	6.5	7.2	5.0	250	31500	SBDC3150(1)00(2)	RSBDC3150(1)00(2)
63	40	0.22	2.5	6.5	7.2	5.0	250	31500	SBDC3220(1)10(2)	RSBDC3220(1)10(2)
63	40	0.33	3.5	7.5	7.2	5.0	250	31500	SBDC3330(1)00(2)	RSBDC3330(1)00(2)
63	40	0.47	3.5	7.5	7.2	5.0	250	31500	SBDC3470(1)10(2)	RSBDC3470(1)10(2)
63	40	0.68	4.5	9.5	7.2	5.0	250	31500	SBDC3680(1)10(2)	RSBDC3680(1)10(2)
63	40	1.0	5.0	10.0	7.2	5.0	250	31500	SBDC4100(1)10(2)	RSBDC4100(1)10(2)
63	40	1.5	6.0	11.0	7.2	5.0	250	31500	SBDC4150(1)10(2)	RSBDC4150(1)10(2)
100	63	0.0047	2.5	6.5	7.2	5.0	300	60000	SBEC1470(1)00(2)	RSBEC1470(1)00(2)
100 100	63 63	0.0068 0.010	2.5 2.5	6.5 6.5	7.2 7.2	5.0 5.0	300 300	60000 60000	SBEC1680(1)00(2) SBEC2100(1)00(2)	RSBEC1680(1)00(2) RSBEC2100(1)00(2)
100	63	0.015	2.5	6.5	7.2	5.0	300	60000	SBEC2150(1)00(2)	RSBEC2150(1)00(2)
100	63	0.013	2.5	6.5	7.2	5.0	300	60000	SBEC2220(1)00(2)	RSBEC2220(1)00(2)
100	63	0.033	2.5	6.5	7.2	5.0	300	60000	SBEC2330(1)00(2)	RSBEC2330(1)00(2)
100	63	0.047	2.5	6.5	7.2	5.0	300	60000	SBEC2470(1)00(2)	RSBEC2470(1)00(2)
100	63	0.07	2.5	6.5	7.2	5.0	300	60000	SBEC2680(1)10(2)	RSBEC2680(1)10(2)
100	63	0.10	3.5	7.5	7.2	5.0	300	60000	SBEC3100(1)00(2)	RSBEC3100(1)00(2)
100	63	0.15	4.5	9.5	7.2	5.0	300	60000	SBEC3150(1)00(2)	RSBEC3150(1)00(2)
100	63	0.22	5.0	10.0	7.2	5.0	300	60000	SBEC3220(1)00(2)	RSBEC3220(1)00(2)
100	63	0.33	6.0	11.0	7.2	5.0	300	60000	SBEC3330(1)00(2)	RSBEC3330(1)00(2)
100	63	0.47	6.0	11.0	7.2	5.0	300	60000	SBEC3470(1)10(2)	RSBEC3470(1)10(2)
250	160	0.0010	2.5	6.5	7.2	5.0	400	200000	SBIC1100(1)00(2)	RSBIC1100(1)00(2)
250	160	0.0015	2.5	6.5	7.2	5.0	400	200000	SBIC1150(1)00(2)	RSBIC1150(1)00(2)
250	160	0.0022	2.5	6.5	7.2	5.0	400	200000	SBIC1220(1)00(2)	RSBIC1220(1)00(2)
250	160	0.0033	2.5	6.5	7.2	5.0	400	200000	SBIC1330(1)00(2)	RSBIC1330(1)00(2)
250	160	0.0047	2.5	6.5	7.2	5.0	400	200000	SBIC1470(1)00(2)	RSBIC1470(1)00(2)
250	160	0.0068 0.010	2.5 2.5	6.5	7.2 7.2	5.0	400	200000 200000	SBIC1680(1)00(2)	RSBIC1680(1)00(2)
250 250	160 160	0.010	2.5	6.5 6.5	7.2 7.2	5.0 5.0	400 400	200000	SBIC2100(1)00(2) SBIC2150(1)00(2)	RSBIC2100(1)00(2) RSBIC2150(1)00(2)
250	160	0.013	3.5	7.5	7.2	5.0	400	200000	SBIC2220(1)00(2)	RSBIC2220(1)00(2)
250	160	0.033	3.5	7.5	7.2	5.0	400	200000	SBIC2330(1)00(2)	RSBIC2330(1)00(2)
250	160	0.047	4.5	9.5	7.2	5.0	400	200000	SBIC2470(1)00(2)	RSBIC2470(1)00(2)
250	160	0.068	4.5	9.5	7.2	5.0	400	200000	SBIC2680(1)00(2)	RSBIC2680(1)00(2)
250	160	0.10	5.0	10.0	7.2	5.0	400	200000	SBIC3100(1)00(2)	RSBIC3100(1)00(2)
250	160	0.15	6.0	11.0	7.2	5.0	400	200000	SBIC3150(1)00(2)	RSBIC3150(1)00(2)
400	200	0.0010	2.5	6.5	7.2	5.0	600	480000	SBMC1100(1)00(2)	RSBMC1100(1)00(2)
400	200	0.0015	2.5	6.5	7.2	5.0	600	480000	SBMC1150(1)00(2)	RSBMC1150(1)00(2)
400	200	0.0022	2.5	6.5	7.2	5.0	600	480000	SBMC1220(1)00(2)	RSBMC1220(1)00(2)
400	200	0.0033	2.5	6.5	7.2	5.0	600	480000	SBMC1330(1)00(2)	RSBMC1330(1)00(2)
400	200	0.0047	2.5	6.5	7.2	5.0	600	480000	SBMC1470(1)00(2)	RSBMC1470(1)00(2)
400	200	0.0068	3.5	7.5	7.2	5.0	600	480000	SBMC1680(1)00(2)	RSBMC1680(1)00(2)
400 400	200 200	0.010 0.015	3.5 3.5	7.5 7.5	7.2 7.2	5.0 5.0	600 600	480000 480000	SBMC2100(1)00(2)	RSBMC2100(1)00(2)
400	200	0.015	3.5 4.5	9.5	7.2	5.0	600	480000	SBMC2150(1)00(2) SBMC2220(1)00(2)	RSBMC2150(1)00(2) RSBMC2220(1)00(2)
400	200	0.022	5.0	10.0	7.2	5.0	600	480000	SBMC2330(1)00(2)	RSBMC2330(1)00(2)
400	200	0.047	6.0	11.0	7.2	5.0	600	480000	SBMC2470(1)00(2)	RSBMC2470(1)00(2)
500	220	0.0010	2.5	6.5	7.2	5.0	700	700000	SBWC1100(1)00(2)	RSBWC1100(1)00(2)
500	220	0.0015	2.5	6.5	7.2	5.0	700	700000	SBWC1150(1)00(2)	RSBWC1150(1)00(2)
500	220	0.0022	3.5	7.5	7.2	5.0	700	700000	SBWC1220(1)00(2)	RSBWC1220(1)00(2)
500	220	0.0033	3.5	7.5	7.2	5.0	700	700000	SBWC1330(1)00(2)	RSBWC1330(1)00(2)
500	220	0.0047	3.5	7.5	7.2	5.0	700	700000	SBWC1470(1)00(2)	RSBWC1470(1)00(2)
500	220	0.0068	4.5	9.5	7.2	5.0	700	700000	SBWC1680(1)00(2)	RSBWC1680(1)00(2)
500	220	0.010	5.0	10.0	7.2	5.0	700	700000	SBWC2100(1)00(2)	RSBWC2100(1)00(2)
500	220	0.015	6.0	11.0	7.2	5.0	700	700000	SBWC2150(1)00(2)	RSBWC2150(1)00(2)
630	220	0.0010	2.5	6.5	7.2	5.0	800	1008000	SBPC1100(1)00(2)	RSBPC1100(1)00(2)
630	220	0.0015	3.5	7.5	7.2	5.0	800	1008000	SBPC1150(1)00(2)	RSBPC1150(1)00(2)
630	220	0.0022	3.5	7.5	7.2	5.0	800	1008000	SBPC1220(1)00(2)	RSBPC1220(1)00(2)
VDC	VAC	Capacitance Value (µF)	B (mm)	H (mm)	L (mm)	Lead Spacing	dV/dt (V/µs)	Max Κ <sub>0</sub> (V²/μs)	New KEMET Part Number	Legacy Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup>  $K = \pm 10\%$ ,  $M = \pm 20\%$ ,  $J = \pm 5\%$  on request.



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

VDC	VAC	Capacitance	Dime	nsions i	n mm	Lead	dV/dt	Maximum K	New KEMET	Legacy Part
VDC	VAC	Value (µF)	В	Н	L	Spacing	(V/µs)	(V²/µs)	Part Number	Number
630	220	0.0033	4.5	9.5	7.2	5.0	800	1008000	SBPC1330(1)00(2)	RSBPC1330(1)00(2)
630	220	0.0047	4.5	9.5	7.2	5.0	800	1008000	SBPC1470(1)00(2)	RSBPC1470(1)00(2)
630	220	0.0068	5.0	10.0	7.2	5.0	800	1008000	SBPC1680(1)00(2)	RSBPC1680(1)00(2)
630	220	0.010	6.0	11.0	7.2	5.0	800	1008000	SBPC2100(1)00(2)	RSBPC2100(1)00(2)
VDC	VAC	Capacitance Value (µF)	B (mm)	H (mm)	L (mm)	Lead Spacing	dV/dt (V/μs)	Max K₀ (V²/µs)	New KEMET Part Number	Legacy Part Number

<sup>(1)</sup> Insert lead and packaging code. See Ordering Options Table for available options.

<sup>(2)</sup>  $K = \pm 10\%$ ,  $M = \pm 20\%$ ,  $J = \pm 5\%$  on request.



## **Soldering Process**

The implementation of the RoHS directive has resulted in the selection of SnAgCu (SAC) alloys or SnCu alloys as primary solder. This has increased the liquidus temperature from that of 183°C for SnPb eutectic alloy to 217 – 221°C for the new alloys. As a result, the heat stress to the components, even in wave soldering, has increased considerably due to higher pre-heat and wave temperatures. Polypropylene capacitors are especially sensitive to heat (the melting point of polypropylene is 160 – 170°C). Wave soldering can be destructive, especially for mechanically small polypropylene capacitors (with lead spacing of 5 mm to 15 mm), and great care has to be taken during soldering. The recommended solder profiles from KEMET should be used. Please consult KEMET with any questions. In general, the wave soldering curve from IEC Publication 61760-1 Edition 2 serves as a solid guideline for successful soldering. Please see Figure 1.

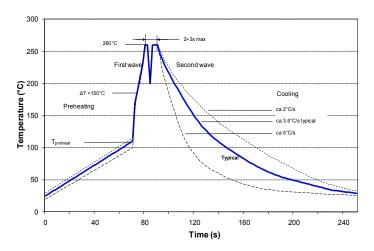
Reflow soldering is not recommended for through-hole film capacitors. Exposing capacitors to a soldering profile in excess of the above the recommended limits may result to degradation or permanent damage to the capacitors.

Do not place the polypropylene capacitor through an adhesive curing oven to cure resin for surface mount components. Insert through-hole parts after the curing of surface mount parts. Consult KEMET to discuss the actual temperature profile in the oven, if through-hole components must pass through the adhesive curing process. A maximum two soldering cycles is recommended. Please allow time for the capacitor surface temperature to return to a normal temperature before the second soldering cycle.

## Figure 1

Dielectric		imum Pre emperatu		Maximum Peak Soldering Temperature		
Film Material	Capacitor Lead Spacing <10 mm	Capacitor Lead Spacing = 15 mm	Capacitor Lead Spacing >15 mm	Capacitor Lead Spacing <15 mm	Capacitor Lead Spacing >15 mm	
Polyester	130°C	130°C	130°C	270°C	270°C	
Polypropylene	100°C	110°C	130°C	260°C	270°C	
Polyphenylene Sulphide	150°C	150°C	160°C	270°C	270°C	

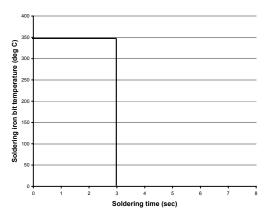
#### **Wave Soldering Recommendations**



## **Manual Soldering Recommendations**

Following is the recommendation for manual soldering with a soldering iron.

#### **Recommended Soldering Temperature**



The soldering iron tip temperature should be set at 350°C (+10°C maximum) with the soldering duration not to exceed more than 3 seconds.



## **Soldering Process cont'd**

#### **Selective Soldering Recommendations**

Selective dip soldering is a variation of reflow soldering. In this method, the printed circuit board with through-hole components to be soldered is preheated and transported over the solder bath as in normal flow soldering without touching the solder. When the board is over the bath, it is stopped and pre-designed solder pots are lifted from the bath with molten solder only at the places of the selected components, and pressed against the lower surface of the board to solder the components.

The temperature profile for selective soldering is similar to the double wave flow soldering outlined in this document, **however**, **instead of two baths**, **there is only one bath with a time from 3 to 10 seconds**. In selective soldering, the risk of overheating is greater than in double wave flow soldering, and great care must be taken so that the parts are not overheated.

## Marking

- · KEMET's logo
- Series
- Capacitance
- · Capacitance tolerance
- · Rated DC voltage

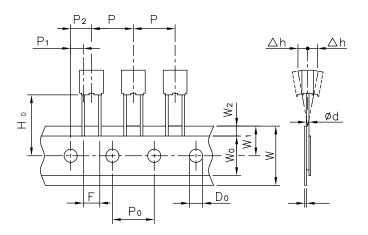
## **Packaging Quantities**

Lead Spacing	Thickness (mm)	Height (mm)	Length (mm)	Bulk Short Leads	Bulk Long Leads	Standard Reel 355 mm	Ammo Taped
	2.5	6.5	7.2	3,000	4,000	2,500	3,500
	3.5	7.5	7.2	2,000	3,000	1,800	2,500
5	4.5	9.5	7.2	1,500	2,000	1,400	1,900
	5.0	10.0	7.2	1,000	1,500	1,200	1,700
	6.0	11.0	7.2	2,000	1,000	1,000	1,400

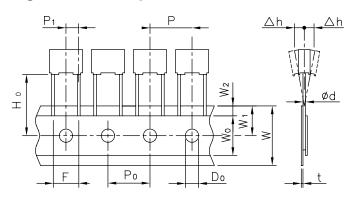


## Lead Taping & Packaging (IEC 60286–2)

## Figure 1 – Lead Space 5 & 7.5 mm



## Figure 2 – Lead Space 7.5 mm



			Dimensi	ons (mm)	
Description	Symbol				
Description	Cyllibol	5	7.5	7.5	Tolerance
		Figure 1	Figure 1	Figure 2	
Lead wire diameter	d	0.5-0.6	0.5-0.6	0.5-0.6	±0.05
Taping lead space	Р	12.7	12.7	12.7	±1
Feed hole lead space	P <sub>0</sub>	12.7	12.7	12.7	±0.2*
Centering of the lead wire	P <sub>1</sub>	3.85	2.6	3.75	±0.7
Centering of the body	P <sub>2</sub>	6.35	6.35		±1.3
Lead spacing	F	5	7.5	7.5	+0.6 -0.1
Component alignment	Δh	0	0	0	±2
Height of component from tape center	H <sub>0</sub> **	18.5	18.5	18.5	±0.5
Carrier tape width	W	18	18	18	+1 -0.5
Hold down tape width	W <sub>o</sub>	6	6	6	minimum
Hole position	W <sub>1</sub>	9	9	9	±0.5
Hold down tape position	W <sub>2</sub>	3	3	3	maximum
Feed hole diameter	D <sub>0</sub>	4	4	4	±0.2
Tape thickness	t	0.7	0.7	0.7	±0.2

<sup>\*</sup>Maximum 1 mm on 20 lead spaces.

For orders of capacitors with lead space = 7.5 mm, please specify the requested version (Figure 1 or Figure 2).

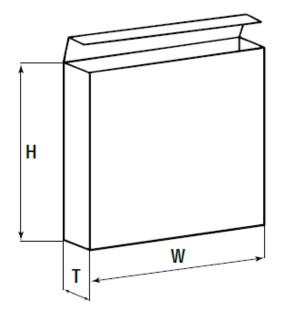
<sup>\*\*</sup>H<sub>o</sub> = 16.5 mm is available upon request.



# **Ammo Specifications**

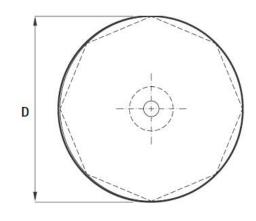
Dimensions in mm						
H W T						
360 * 340 59						

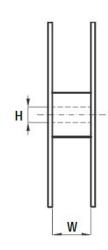
<sup>\*</sup> Lower dimension available upon request (maximum 295 mm)



# **Reel Specifications**

Dimensions in mm		
D	Н	W
355	30	55 maximum







# **KEMET Corporation World Headquarters**

2835 KEMET Way Simpsonville, SC 29681

Mailing Address: P.O. Box 5928 Greenville, SC 29606

www.kemet.com Tel: 864-963-6300 Fax: 864-963-6521

## **Corporate Offices**

Fort Lauderdale, FL Tel: 954-766-2800

### **North America**

#### Southeast

Lake Mary, FL Tel: 407-855-8886

#### **Northeast**

Wilmington, MA Tel: 978-658-1663

#### Central

Novi, MI

Tel: 248-306-9353

#### West

Milpitas, CA Tel: 408-433-9950

#### Mexico

Guadalajara, Jalisco Tel: 52-33-3123-2141

## Europe

### Southern Europe

Paris, France Tel: 33-1-4646-1006

Sasso Marconi, Italy Tel: 39-051-939111

#### **Central Europe**

Landsberg, Germany Tel: 49-8191-3350800

Kamen, Germany Tel: 49-2307-438110

### **Northern Europe**

Bishop's Stortford, United Kingdom Tel: 44-1279-460122

Espoo, Finland

Tel: 358-9-5406-5000

#### **Asia**

#### **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.



#### **Disclaimer**

All product specifications, statements, information and data (collectively, the "Information") in this datasheet are subject to change. The customer is responsible for checking and verifying the extent to which the Information contained in this publication is applicable to an order at the time the order is placed.

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

Statements of suitability for certain applications are based on KEMET Electronics Corporation's ("KEMET") knowledge of typical operating conditions for such applications, but are not intended to constitute – and KEMET specifically disclaims – any warranty concerning suitability for a specific customer application or use. The 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 KEMET with reference to the use of KEMET's products is given gratis, and KEMET assumes no obligation or liability for the advice given or results obtained.

Although KEMET designs and manufactures its 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 indicted or that other measures may not be required.

## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Film Capacitors category:

Click to view products by Kemet manufacturer:

Other Similar products are found below:

F339X134748MIP2T0 F450KG153J250ALH0J 750-1018 FKP1-1500160010P15 FKP1R031007D00JYSD FKP1R031507E00JYSD FKP1U024707E00KYSD 82DC4100CK60J 82EC1100DQ50K PFR5101J100J11L16.5TA18 PME261JB5220KR19T0 A451GK223M040A A561ED221M450A QXJ2E474KTPT QXL2B333KTPT R49AN347000A1K EEC2G505HQA406 B25668A6676A375 B25673A4282E140 BFC233868148 BFC2370GC222 C3B2AD44400B20K C4ASWBU3220A3EK CB027C0473J-- CB177I0184J-- CB182K0184J-- 23PW210 950CQW5H-F SBDC3470AA10J SCD105K122A3-22 2N3155 A571EH331M450A FKP1-2202KV5P15 FKS3-680040010P10 QXL2E473KTPT 445450-1 B25669A3996J375 46KI322000M1M 46KR415050M1K 4BSNBX4100ZBFJ MKP383510063JKP2T0 MKPY2-.02230020P15 MKT 1813-368-015 4055292001 46KN410000N1K EEC2E106HQA405 EEC2G205HQA402 EEC2G805HQA415 P409CP224M250AH470 82EC2150DQ50K