



# Film Capacitors

## Taping and packing

Date: June 2018

© EPCOS AG 2018. Reproduction, publication and dissemination of this publication, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

EPCOS AG is a TDK Group Company.

## Taping and packing

### 1 Capacitors with radial leads

Taping to IEC 60286-2:2015.

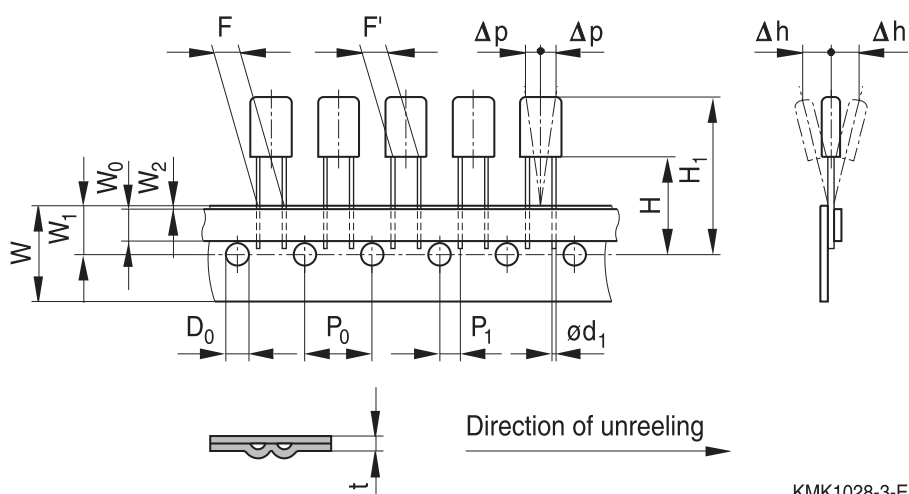
#### 1.1 Tape dimensions

##### Lead spacing 5 mm

Types: B32529, B32559 (MKT)

Standard 5 mm

$P_0 = 12.7$  mm



KMK1028-3-E

#### Dimensions

Symbol	$\varnothing d_1$	$D_0$	F	F'	H	$H_1$	$P_0$	$P_1$
Dimension (mm)	0.5	4.0	5.0	5.0	18.5	32.2	12.7	3.8
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.4$	$\pm 0.5$	max.	$\pm 0.2^{\text{*)}}$	$\pm 0.7$

Symbol	W	$W_0$	$W_1$	$W_2$	t	$\Delta h$	$\Delta p$
Dimension (mm)	18.0	6.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	+2.5	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

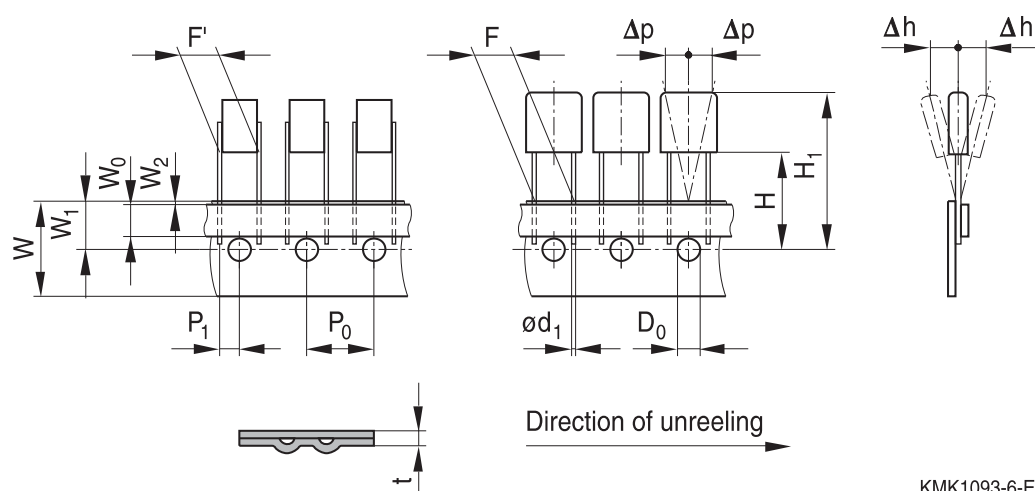
<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

## Taping and packing

### Lead spacing 7.5 mm

Types: B32520, B32560 (MKT)  
B32620 (MKP)

Standard 7.5 mm  
 $P_0 = 12.7$  mm



KMK1093-6-E

### Dimensions

Symbol	$\phi d_1$	$D_0$	$F$	$F'$	$H$	$H_1$	$P_0$	$P_1$
Dimension (mm)	0.5	4.0	7.5	7.5	18.5	32.2	12.7	3.8
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.4$	$\pm 0.5$	max.	$\pm 0.2^{\text{*)}}$	$\pm 0.7$

Symbol	$W$	$W_0$	$W_1$	$W_2$	$t$	$\Delta h$	$\Delta p$
Dimension (mm)	18.0	6.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

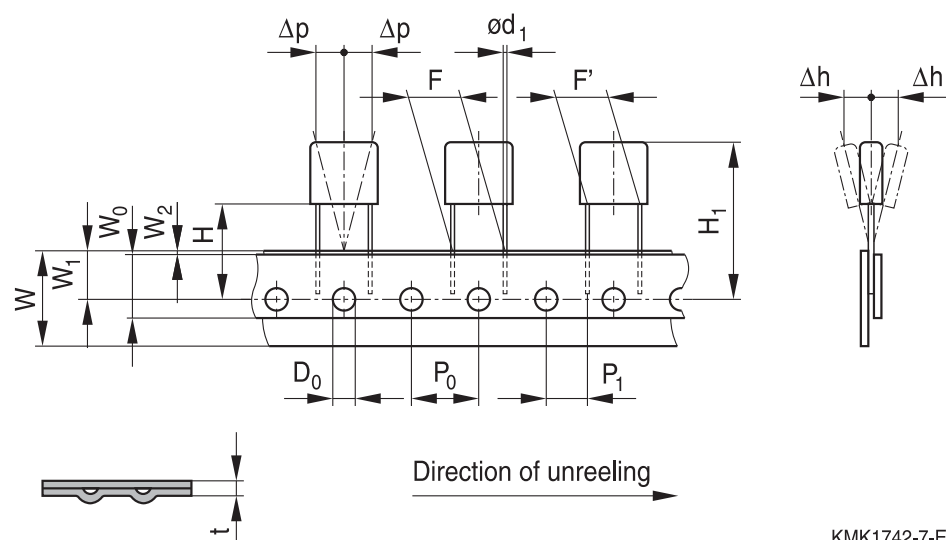
## Taping and packing

### Lead spacing 10 mm

Types:	B32521, B32561 (MKT)
	B32621, B32641, B32651, B32671 (MKP)
	B32021, B32911, B32921 (EMI suppression)

Standard 10 mm

$P_0 = 12.7$  mm



KMK1742-7-E

### Dimensions

Symbol	$\phi d_1$	$D_0$	$F$	$F'$	$H$	$H_1$
Dimension (mm)	0.5; 0.6	4.0	10.0	10.0	18.5	32.2
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.4$	$\pm 0.5$	max.

Symbol	$P_0$	$P_1$	$W$	$W_0$	$W_1$	$W_2$	$t$	$\Delta h$	$\Delta p$
Dimension (mm)	12.7	7.7	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.2^*)$	$\pm 0.7$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

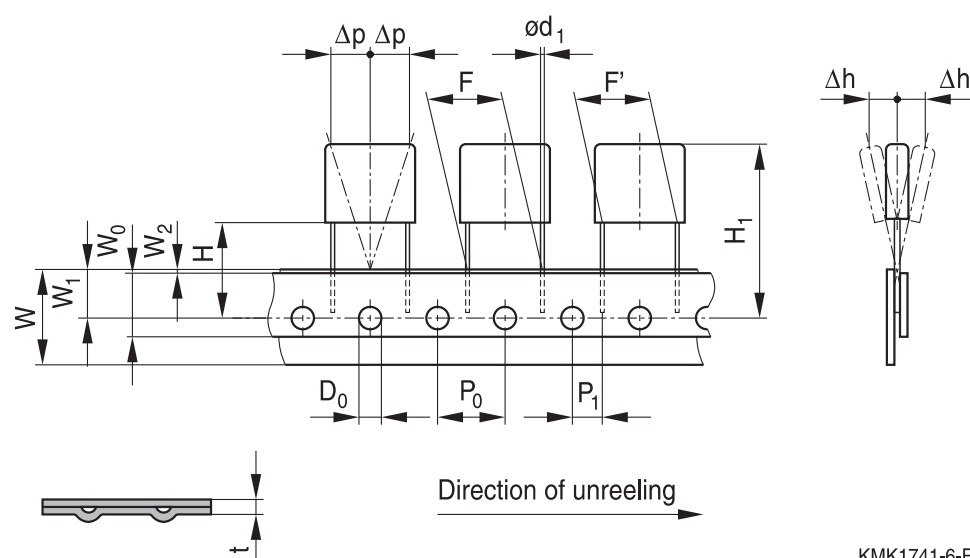
## Taping and packing

### Lead spacing 15 mm

Types:	B32522, B32562 (MKT)
	B32642, B32652, B32672 (MKP)
	B32682 (MFP)
	B32022, B32912, B32922, B32932, B81123 (EMI suppression)

Standard 15 mm

$P_0 = 12.7$  mm



KMK1741-6-E

### Dimensions

Symbol	$\varnothing d_1$	$D_0$	F	F'	H	$H_1$
Dimension (mm)	0.6; 0.8	4.0	15.0	15.0	18.5	37.5
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.4$	$\pm 0.5$	max.

Symbol	$P_0$	$P_1$	W	$W_0$	$W_1$	$W_2$	t	$\Delta h$	$\Delta p$
Dimension (mm)	12.7	5.2	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.2^*)$	$\pm 0.7$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

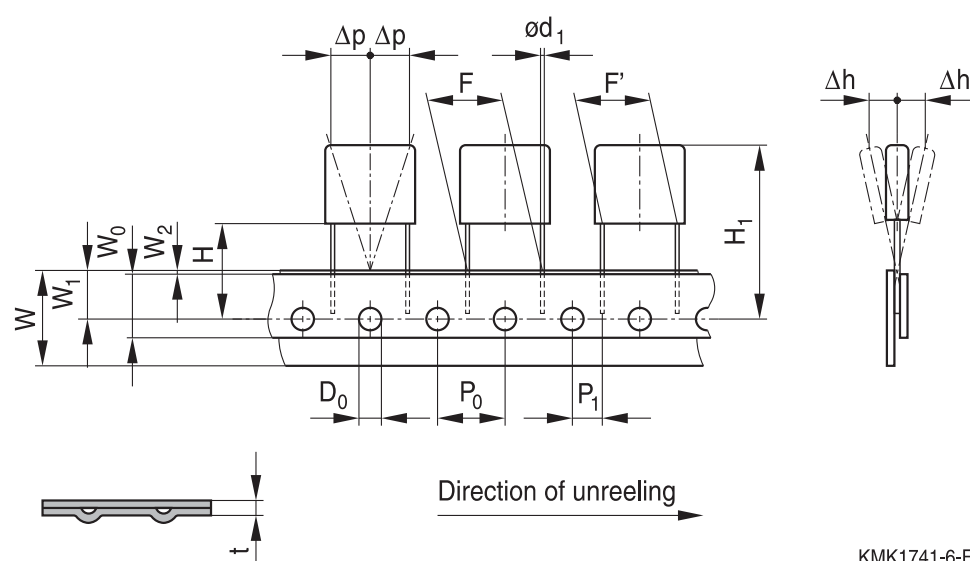
## Taping and packing

### Lead spacing 22.5 mm

Types:	B32523, B32593 (MKT)
	B32613, B32643, B32653, B32673 (MKP)
	B32683 (MFP)
	B32023, B32033, B32913, B32923, B32933, B81123 (EMI suppression)

Standard 22.5 mm

$P_0 = 12.7$  mm



### Dimensions

Symbol	$\varnothing d_1$	$D_0$	F	F'	H	$H_1$
Dimension (mm)	0.8	4.0	22.5	22.5	18.5	39.5
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.4$	$\pm 0.5$	max.

Symbol	$P_0$	$P_1$	W	$W_0$	$W_1$	$W_2$	t	$\Delta h$	$\Delta p$
Dimension (mm)	12.7	7.8	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.2^*)$	$\pm 0.7$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

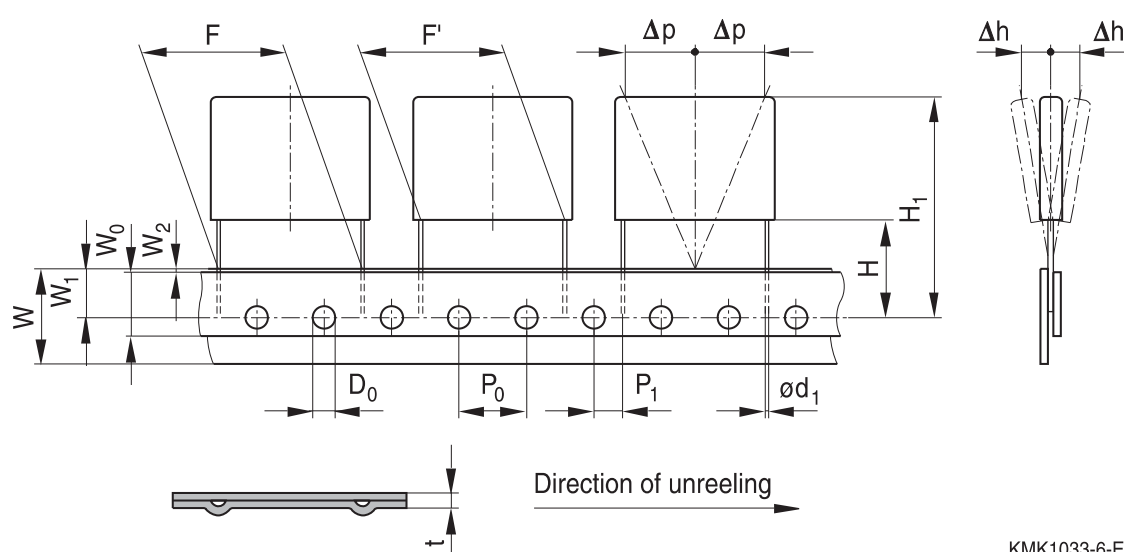
## Taping and packing

### Lead spacing 27.5 mm

Types:	B32524 (MKT)
	B32654, B32674, B32774 (MKP)
	B32684 (MFP)
	B32024, B32034, B32914, B32924, B32934 (EMI suppression)

Standard 27.5 mm

$P_0 = 12.7$  mm



KMK1033-6-E

### Dimensions

Symbol	$\phi d_1$	$D_0$	$F$	$F'$	$H$	$H_1$
Dimension (mm)	0.8	4.0	27.5	27.5	18.5	42.0
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.4$	$\pm 0.5$	max.

Symbol	$P_0$	$P_1$	$W$	$W_0$	$W_1$	$W_2$	$t$	$\Delta h$	$\Delta p$
Dimension (mm)	12.7	5.3	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.2^*)$	$\pm 0.7$	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

## Taping and packing

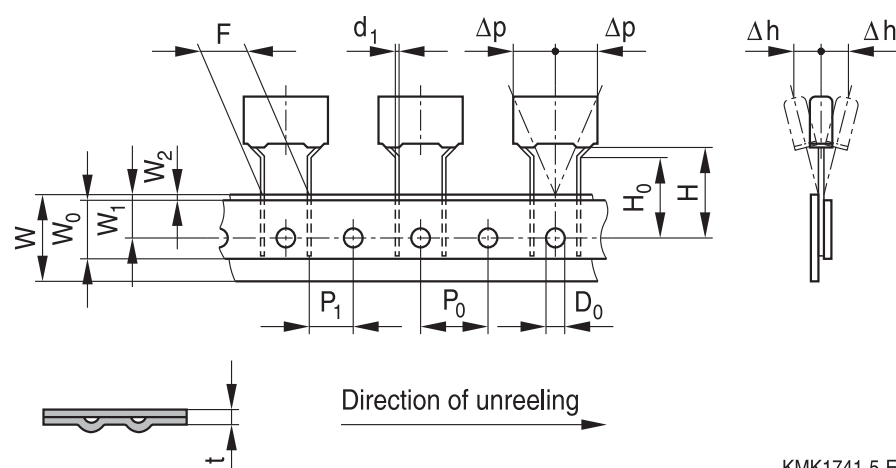
### 1.2 Crimping

#### Lead spacing 10 mm crimped down to 7.5 mm

$P_0 = 15.0$  mm, ending code 140 for Reel, ending code 240 for Ammo pack

Standard 10 mm

$P_0 = 15$  mm



KMK1741-5-E

Symbol	$\varnothing d_1$	$D_0$	F	H	$H_0$	$P_0$	$P_1$
Dimension (mm)	0.5; 0.6	4.0	7.5	18.5	17.0	15.0	3.75
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.5$	$\pm 0.5$	$\pm 0.2^{*)}$	$\pm 0.7$

Symbol	W	$W_0$	$W_1$	$W_2$	t	$\Delta h$	$\Delta p$
Dimension (mm)	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

<sup>\*)</sup>  $\pm 1$  per  $20 \times P_0$

Packing unit and MOQ upon request.



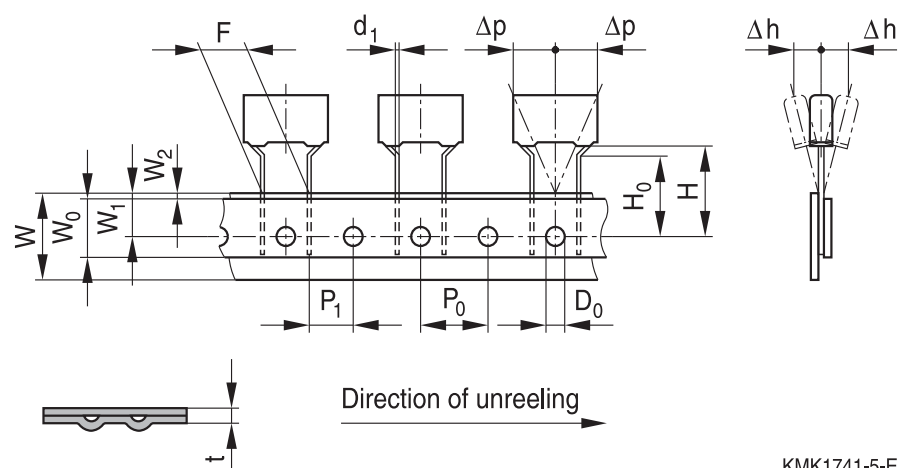
## Taping and packing

### Lead spacing 15 mm crimped down to 7.5 mm

$P_0 = 15.0$  mm, ending code 155 for Reel, ending code 255 for Ammo pack

Standard 15 mm

$P_0 = 15$  mm



KMK1741-5-E

Symbol	$\varnothing d_1$	$D_0$	F	H	$H_0$	$P_0$	$P_1$
Dimension (mm)	0.6; 0.8	4.0	7.5	18.5	17.0	15.0	3.75
Tolerance (mm)	$\pm 0.05$	$\pm 0.2$	$+0.6/-0.1$	$\pm 0.5$	$\pm 0.5$	$\pm 0.2^{*)}$	$\pm 0.7$

Symbol	W	$W_0$	$W_1$	$W_2$	t	$\Delta h$	$\Delta p$
Dimension (mm)	18.0	12.0	9.0	0.5	0.7	0	0
Tolerance (mm)	$\pm 0.5$	$\pm 0.5$	$\pm 0.5$	$+2.5$	$\pm 0.2$	$\pm 2.0$	$\pm 1.3$

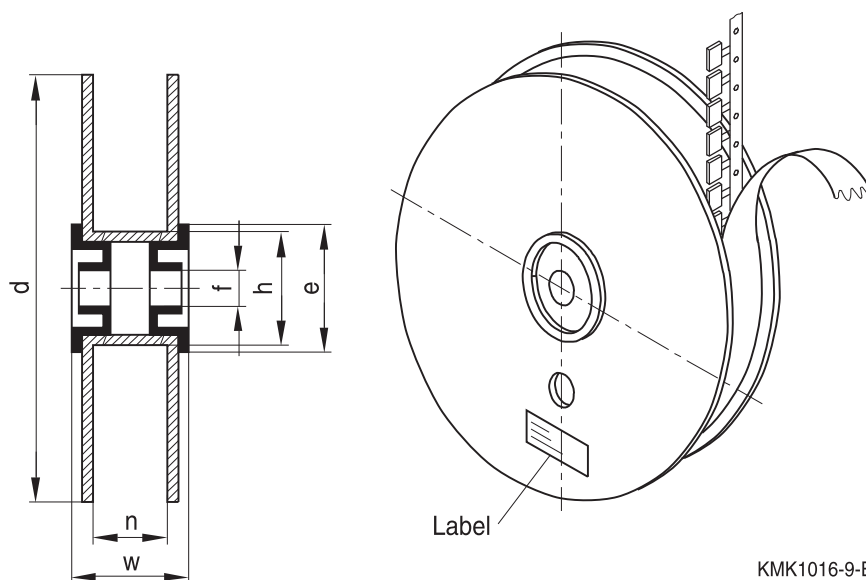
$^{*)} \pm 1$  per  $20 \times P_0$

Packing unit and MOQ upon request.

## Taping and packing

### 1.3 Packing

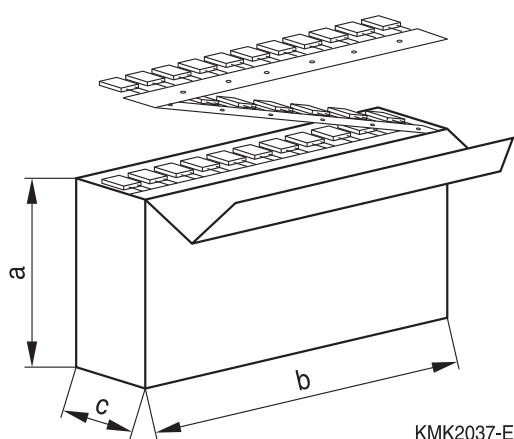
#### Reel packing



KMK1016-9-E

Dimensions (mm)	n	w	∅ d	∅ e	∅ f	∅ h
Lead spacing ≤7.5	42 +1	52 max.	360 -1	90	30.5 ±0.2	82 +1
Lead spacing 10, 15, 22.5, 27.5	54 +1	70 max.	500 -1	130	30.5 ±0.2	126 +1
<i>On request:</i>						
Lead spacing ≥10	54 +1	70 max.	360 -1	90	30.5 ±0.7	82 +1

#### Ammo packing



KMK2037-E

Dimensions (approximately)	Lead spacing (mm)							
	5	7.5	15	15	15	22.5	15	22.5
a (mm)		355		355		480		480
b (mm)		350		350		355		355
c (mm)		50		60		50		60

### 2 General notes on packing

When packing our products, we pay attention to the needs of the environment by reducing the amount of packing to an absolute minimum and using environmentally compatible materials for packing. In doing so we are also complying with the German packaging legislation which came into force on the 1<sup>st</sup> December 1991.

In order to further comply with the aims of this legislation concerning the reduction of commercial waste, we have implemented the following measures:

- The use of "Euro" pallets.
- Goods are secured on the pallets using straps and edge protectors made of environmentally compatible plastics (PE or PP).
- The shipping cartons (transport packing) qualify for and carry the RESY logo.
- Separating layers are of paper.
- The shipping cartons are sealed with paper adhesive tape in order to ensure that only a single, uniform material needs to be disposed of.
- We are prepared, on principle, to take back the packing material (especially product-specific plastic packages, e.g. magazines). However, we ask our customers to send cardboard cartons, corrugated cardboard, paper etc. to recycling or disposal companies in order to avoid unnecessary transportation of empty packing materials.