

# 积层陶瓷电容器

带导线，中耐压 (Edc: 100 to 630V)

## FK 系列

Type:           FK28, FK18  
                  FK24, FK14  
                  FK26, FK16  
                  FK20, FK11  
                  FK22

Issue date:     May 2011

# 积层型带导线陶瓷电容器

## 中耐压 FK 系列

RoHS指令对应产品

### 特点

- 针对高电压的独特设计结构，体积小而具有高耐压的特性。
- 额定电压 $E_{dc}$ : 可适应100, 250, 630V。
- 通过导线上设置扭结的成型加工，插入使能保持一定高度，同时容易避开焊接时的气体，从而提高焊接的可靠度。
- 也备有自动插入用的卷带仕様，从而可以降低插件成本。

### 产品名称的识别法

FK 28 C0G 1H 101 J □□□□

(1) (2) (3) (4) (5) (6) (7)

#### (1) 系列名称

#### (2) 尺寸·导线形状

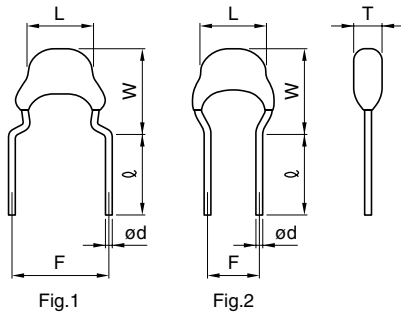


Fig.1

Fig.2

单位:mm

型号	最大 L	最大 W	最大 T	F	l	ød	图
28	4.0	5.5	2.5	5.0±1.0	7±2	0.5+0.1, -0.03	1
24	4.5	5.5	2.5	5.0±1.0	7±2	0.5+0.1, -0.03	1
26	5.5	6.0	3.5	5.0±1.0	7±2	0.5+0.1, -0.03	1
20	5.5	7.0	4.0	5.0±1.0	7±2	0.5+0.1, -0.03	1
22	7.5	8.0	4.0	5.0±1.0	7±2	0.5+0.1, -0.03	1
18	4.0	5.5	2.5	2.5±0.8	5+3, -1	0.5+0.1, -0.03	2
14	4.5	5.5	2.5	2.5±0.8	5+3, -1	0.5+0.1, -0.03	2
16	5.5	6.0	3.5	2.5±0.8	5+3, -1	0.5+0.1, -0.03	2
11	5.5	7.0	4.0	2.5±0.8	5+3, -1	0.5+0.1, -0.03	2

#### (3) 电容温度特性

##### 种类1 (温度补偿用)

温度特性	温度系数	温度范围
C0G	0±30ppm/°C	-55 to +125°C

##### 种类2 (高介电率类)

温度特性	容量变化率	温度范围
X7R	±15%	-55 to +125°C
X7S	±22%	-55 to +125°C

#### (4) 额定电压 $E_{dc}$

2A	100V
2E	250V
2J	630V

#### (5) 标称电容

以 pF(微微法拉) 为单位, 并用三位数表示。

最初两位数: 有效数字

最后一位数: 接在有效数字后的零数

102	1,000pF
333	33,000pF
474	470,000pF

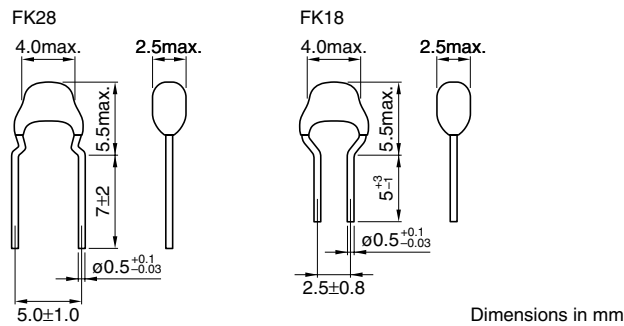
#### (6) 电容公差

记号	容差
J	±5%
K	±10%

#### (7) 本公司内部管理记号

● RoHS 指令的对应: 表示除了依据 EU Directive 2002/95/EC 免除的用途之外, 未使用铅, 镉, 汞, 六价铬及特定溴系难燃剂 PBB, PBDE 等。

· 记载内容, 在没有予告的情况下有可能改进和变更, 请予以谅解。

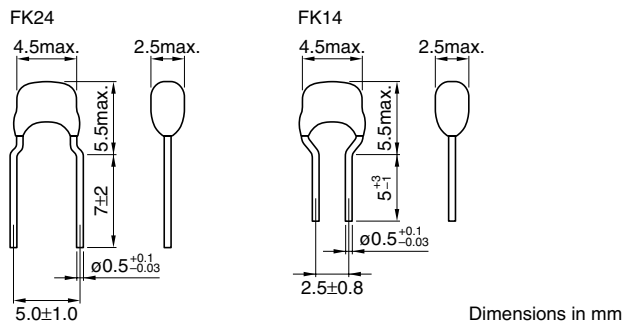
**电容取得范围：种类 1（温度补偿用）**
**FK28, FK18 型**
**形状・尺寸**


额定电压 Edc: 100 to 250V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK28 型	FK18 型
C0G	100pF	±5%	100	FK28C0G2A101J	FK18C0G2A101J
C0G	120pF	±5%	100	FK28C0G2A121J	FK18C0G2A121J
C0G	150pF	±5%	100	FK28C0G2A151J	FK18C0G2A151J
C0G	180pF	±5%	100	FK28C0G2A181J	FK18C0G2A181J
C0G	220pF	±5%	100	FK28C0G2A221J	FK18C0G2A221J
C0G	270pF	±5%	100	FK28C0G2A271J	FK18C0G2A271J
C0G	330pF	±5%	100	FK28C0G2A331J	FK18C0G2A331J
C0G	390pF	±5%	100	FK28C0G2A391J	FK18C0G2A391J
C0G	470pF	±5%	100	FK28C0G2A471J	FK18C0G2A471J
C0G	560pF	±5%	100	FK28C0G2A561J	FK18C0G2A561J
C0G	680pF	±5%	100	FK28C0G2A681J	FK18C0G2A681J
C0G	820pF	±5%	100	FK28C0G2A821J	FK18C0G2A821J
C0G	1000pF	±5%	100	FK28C0G2A102J	FK18C0G2A102J
C0G	1200pF	±5%	100	FK28C0G2A122J	FK18C0G2A122J
C0G	100pF	±5%	250	FK28C0G2E101J	FK18C0G2E101J
C0G	120pF	±5%	250	FK28C0G2E121J	FK18C0G2E121J
C0G	150pF	±5%	250	FK28C0G2E151J	FK18C0G2E151J
C0G	180pF	±5%	250	FK28C0G2E181J	FK18C0G2E181J
C0G	220pF	±5%	250	FK28C0G2E221J	FK18C0G2E221J
C0G	270pF	±5%	250	FK28C0G2E271J	FK18C0G2E271J
C0G	330pF	±5%	250	FK28C0G2E331J	FK18C0G2E331J
C0G	390pF	±5%	250	FK28C0G2E391J	FK18C0G2E391J
C0G	470pF	±5%	250	FK28C0G2E471J	FK18C0G2E471J
C0G	560pF	±5%	250	FK28C0G2E561J	FK18C0G2E561J
C0G	680pF	±5%	250	FK28C0G2E681J	FK18C0G2E681J

## FK24, FK14 型

### 形状・尺寸

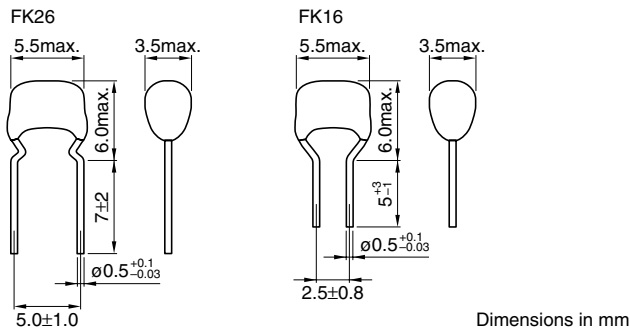


额定电压 Edc: 100 to 250V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK24 型	FK14 型
C0G	1000pF	±5%	100	FK24C0G2A102J	FK14C0G2A102J
C0G	1200pF	±5%	100	FK24C0G2A122J	FK14C0G2A122J
C0G	1500pF	±5%	100	FK24C0G2A152J	FK14C0G2A152J
C0G	1800pF	±5%	100	FK24C0G2A182J	FK14C0G2A182J
C0G	2200pF	±5%	100	FK24C0G2A222J	FK14C0G2A222J
C0G	2700pF	±5%	100	FK24C0G2A272J	FK14C0G2A272J
C0G	3300pF	±5%	100	FK24C0G2A332J	FK14C0G2A332J
C0G	3900pF	±5%	100	FK24C0G2A392J	FK14C0G2A392J
C0G	4700pF	±5%	100	FK24C0G2A472J	FK14C0G2A472J
C0G	820pF	±5%	250	FK24C0G2E821J	FK14C0G2E821J
C0G	1000pF	±5%	250	FK24C0G2E102J	FK14C0G2E102J
C0G	1200pF	±5%	250	FK24C0G2E122J	FK14C0G2E122J
C0G	1500pF	±5%	250	FK24C0G2E152J	FK14C0G2E152J
C0G	1800pF	±5%	250	FK24C0G2E182J	FK14C0G2E182J
C0G	2200pF	±5%	250	FK24C0G2E222J	FK14C0G2E222J
C0G	2700pF	±5%	250	FK24C0G2E272J	FK14C0G2E272J

## FK26, FK16 型

### 形状・尺寸

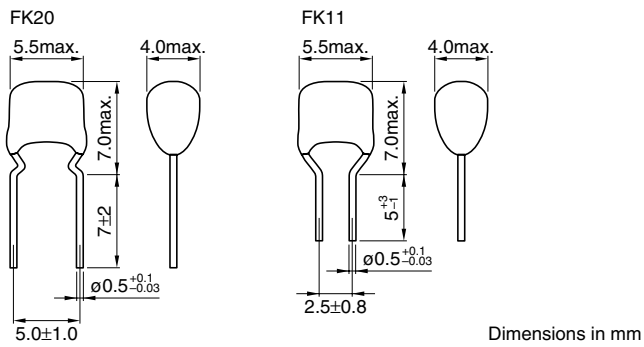


额定电压 Edc: 100 to 630V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK26 型	FK16 型
C0G	3900pF	±5%	100	FK26C0G2A392J	FK16C0G2A392J
C0G	4700pF	±5%	100	FK26C0G2A472J	FK16C0G2A472J
C0G	5600pF	±5%	100	FK26C0G2A562J	FK16C0G2A562J
C0G	6800pF	±5%	100	FK26C0G2A682J	FK16C0G2A682J
C0G	8200pF	±5%	100	FK26C0G2A822J	FK16C0G2A822J
C0G	10000pF	±5%	100	FK26C0G2A103J	FK16C0G2A103J
C0G	3300pF	±5%	250	FK26C0G2E332J	
C0G	3900pF	±5%	250	FK26C0G2E392J	
C0G	4700pF	±5%	250	FK26C0G2E472J	
C0G	5600pF	±5%	250	FK26C0G2E562J	
C0G	6800pF	±5%	250	FK26C0G2E682J	
C0G	8200pF	±5%	250	FK26C0G2E822J	
C0G	100pF	±5%	630	FK26C0G2J101J	
C0G	120pF	±5%	630	FK26C0G2J121J	
C0G	150pF	±5%	630	FK26C0G2J151J	
C0G	180pF	±5%	630	FK26C0G2J181J	
C0G	220pF	±5%	630	FK26C0G2J221J	
C0G	270pF	±5%	630	FK26C0G2J271J	
C0G	330pF	±5%	630	FK26C0G2J331J	
C0G	390pF	±5%	630	FK26C0G2J391J	
C0G	470pF	±5%	630	FK26C0G2J471J	
C0G	560pF	±5%	630	FK26C0G2J561J	
C0G	680pF	±5%	630	FK26C0G2J681J	
C0G	820pF	±5%	630	FK26C0G2J821J	
C0G	1000pF	±5%	630	FK26C0G2J102J	
C0G	1200pF	±5%	630	FK26C0G2J122J	
C0G	1500pF	±5%	630	FK26C0G2J152J	
C0G	1800pF	±5%	630	FK26C0G2J182J	
C0G	2200pF	±5%	630	FK26C0G2J222J	
C0G	2700pF	±5%	630	FK26C0G2J272J	
C0G	3300pF	±5%	630	FK26C0G2J332J	

## FK20, FK11 型

### 形状・尺寸

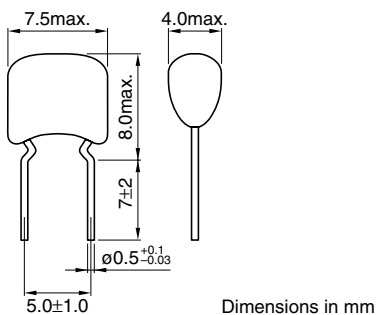


额定电压 Edc: 100 to 630V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK20 型	FK11 型
C0G	15000pF	±5%	100	FK20C0G2A153J	FK11C0G2A153J
C0G	22000pF	±5%	100	FK20C0G2A223J	FK11C0G2A223J
C0G	33000pF	±5%	100	FK20C0G2A333J	FK11C0G2A333J
C0G	47000pF	±5%	100	FK20C0G2A473J	FK11C0G2A473J
C0G	10000pF	±5%	250	FK20C0G2E103J	
C0G	15000pF	±5%	250	FK20C0G2E153J	
C0G	3900pF	±5%	630	FK20C0G2J392J	
C0G	4700pF	±5%	630	FK20C0G2J472J	
C0G	5600pF	±5%	630	FK20C0G2J562J	
C0G	6800pF	±5%	630	FK20C0G2J682J	

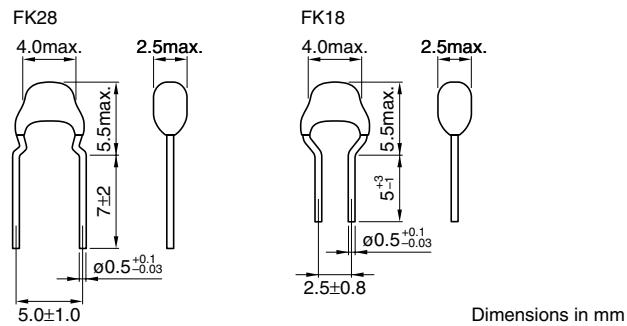
## FK22 型

### 形状・尺寸



额定电压 Edc: 100 to 630V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK22 型	
C0G	68000pF	±5%	100	FK22C0G2A683J	
C0G	0.1μF	±5%	100	FK22C0G2A104J	
C0G	22000pF	±5%	250	FK22C0G2E223J	
C0G	33000pF	±5%	250	FK22C0G2E333J	
C0G	47000pF	±5%	250	FK22C0G2E473J	
C0G	8200pF	±5%	630	FK22C0G2J822J	
C0G	10000pF	±5%	630	FK22C0G2J103J	
C0G	15000pF	±5%	630	FK22C0G2J153J	
C0G	22000pF	±5%	630	FK22C0G2J223J	

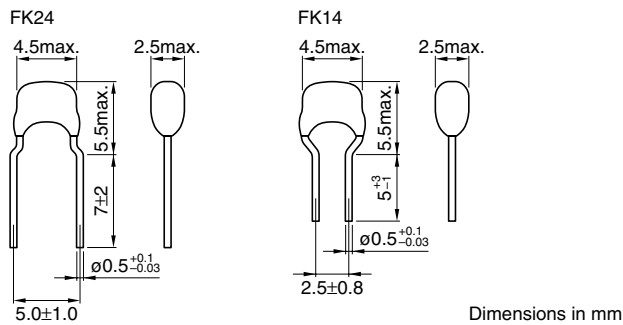
**电容取得范围：种类 2（高介电率类）**
**FK28, FK18 型**
**形状・尺寸**


额定电压 Edc: 100 to 250V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK28 型	FK18 型
X7R	1000pF	±10%	100	FK28X7R2A102K	FK18X7R2A102K
X7R	1500pF	±10%	100	FK28X7R2A152K	FK18X7R2A152K
X7R	2200pF	±10%	100	FK28X7R2A222K	FK18X7R2A222K
X7R	3300pF	±10%	100	FK28X7R2A332K	FK18X7R2A332K
X7R	4700pF	±10%	100	FK28X7R2A472K	FK18X7R2A472K
X7R	6800pF	±10%	100	FK28X7R2A682K	FK18X7R2A682K
X7R	10000pF	±10%	100	FK28X7R2A103K	FK18X7R2A103K
X7R	15000pF	±10%	100	FK28X7R2A153K	FK18X7R2A153K
X7R	22000pF	±10%	100	FK28X7R2A223K	FK18X7R2A223K
X7S	33000pF	±10%	100	FK28X7S2A333K	FK18X7S2A333K
X7S	47000pF	±10%	100	FK28X7S2A473K	FK18X7S2A473K
X7S	68000pF	±10%	100	FK28X7S2A683K	FK18X7S2A683K
X7S	0.1μF	±10%	100	FK28X7S2A104K	FK18X7S2A104K

## FK24, FK14 型

### 形状・尺寸



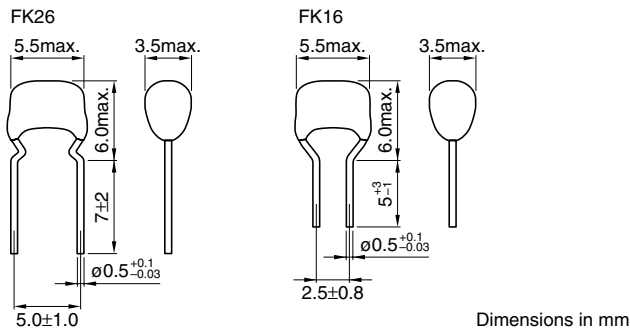
额定电压 Edc: 100 to 250V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK24 型	FK14 型
X7R	1000pF	±10%	100	FK24X7R2A102K	FK14X7R2A102K
X7R	1500pF	±10%	100	FK24X7R2A152K	FK14X7R2A152K
X7R	2200pF	±10%	100	FK24X7R2A222K	FK14X7R2A222K
X7R	3300pF	±10%	100	FK24X7R2A332K	FK14X7R2A332K
X7R	4700pF	±10%	100	FK24X7R2A472K	FK14X7R2A472K
X7R	6800pF	±10%	100	FK24X7R2A682K	FK14X7R2A682K
X7R	10000pF	±10%	100	FK24X7R2A103K	FK14X7R2A103K
X7R	15000pF	±10%	100	FK24X7R2A153K	FK14X7R2A153K
X7R	22000pF	±10%	100	FK24X7R2A223K	FK14X7R2A223K
X7R	33000pF	±10%	100	FK24X7R2A333K	FK14X7R2A333K
X7R	47000pF	±10%	100	FK24X7R2A473K	FK14X7R2A473K
X7R	68000pF	±10%	100	FK24X7R2A683K	FK14X7R2A683K
X7R	0.1μF	±10%	100	FK24X7R2A104K	FK14X7R2A104K
X7S	0.15μF	±10%	100	FK24X7S2A154K	FK14X7S2A154K
X7S	0.22μF	±10%	100	FK24X7S2A224K	FK14X7S2A224K
X7S	0.33μF	±10%	100	FK24X7S2A334K	FK14X7S2A334K
X7S	0.47μF	±10%	100	FK24X7S2A474K	FK14X7S2A474K
X7S	0.68μF	±10%	100	FK24X7S2A684K	FK14X7S2A684K
X7S	1μF	±10%	100	FK24X7S2A105K	FK14X7S2A105K
X7R	1000pF	±10%	250	FK24X7R2E102K	FK14X7R2E102K
X7R	1500pF	±10%	250	FK24X7R2E152K	FK14X7R2E152K
X7R	2200pF	±10%	250	FK24X7R2E222K	FK14X7R2E222K
X7R	3300pF	±10%	250	FK24X7R2E332K	FK14X7R2E332K
X7R	4700pF	±10%	250	FK24X7R2E472K	FK14X7R2E472K
X7R	6800pF	±10%	250	FK24X7R2E682K	FK14X7R2E682K
X7R	10000pF	±10%	250	FK24X7R2E103K	FK14X7R2E103K
X7R	15000pF	±10%	250	FK24X7R2E153K	FK14X7R2E153K
X7R	22000pF	±10%	250	FK24X7R2E223K	FK14X7R2E223K



## FK26, FK16 型

### 形状・尺寸

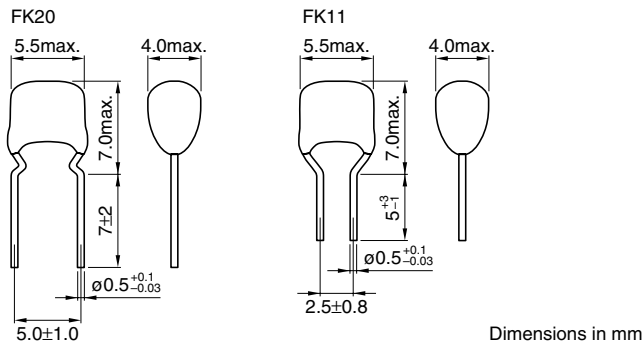


额定电压 Edc: 100 to 630V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK26 型	FK16 型
X7R	33000pF	±10%	100	FK26X7R2A333K	FK16X7R2A333K
X7R	47000pF	±10%	100	FK26X7R2A473K	FK16X7R2A473K
X7R	68000pF	±10%	100	FK26X7R2A683K	FK16X7R2A683K
X7R	0.1μF	±10%	100	FK26X7R2A104K	FK16X7R2A104K
X7R	0.15μF	±10%	100	FK26X7R2A154K	FK16X7R2A154K
X7R	0.22μF	±10%	100	FK26X7R2A224K	FK16X7R2A224K
X7R	0.33μF	±10%	100	FK26X7R2A334K	FK16X7R2A334K
X7R	0.47μF	±10%	100	FK26X7R2A474K	FK16X7R2A474K
X7R	0.68μF	±10%	100	FK26X7R2A684K	FK16X7R2A684K
X7R	1μF	±10%	100	FK26X7R2A105K	FK16X7R2A105K
X7S	1.5μF	±10%	100	FK26X7S2A155K	FK16X7S2A155K
X7S	2.2μF	±10%	100	FK26X7S2A225K	FK16X7S2A225K
X7R	15000pF	±10%	250	FK26X7R2E153K	
X7R	22000pF	±10%	250	FK26X7R2E223K	
X7R	33000pF	±10%	250	FK26X7R2E333K	
X7R	47000pF	±10%	250	FK26X7R2E473K	
X7R	68000pF	±10%	250	FK26X7R2E683K	
X7R	0.1μF	±10%	250	FK26X7R2E104K	
X7R	1000pF	±10%	630	FK26X7R2J102K	
X7R	1500pF	±10%	630	FK26X7R2J152K	
X7R	2200pF	±10%	630	FK26X7R2J222K	
X7R	3300pF	±10%	630	FK26X7R2J332K	
X7R	4700pF	±10%	630	FK26X7R2J472K	
X7R	6800pF	±10%	630	FK26X7R2J682K	
X7R	10000pF	±10%	630	FK26X7R2J103K	
X7R	15000pF	±10%	630	FK26X7R2J153K	
X7R	22000pF	±10%	630	FK26X7R2J223K	
X7R	33000pF	±10%	630	FK26X7R2J333K	

## FK20, FK11 型

### 形状・尺寸

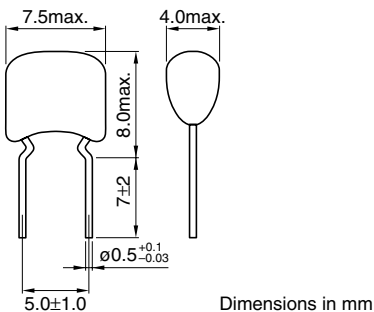


额定电压 Edc: 100 to 630V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK20 型	FK11 型
X7R	0.33 $\mu$ F	$\pm 10\%$	100	FK20X7R2A334K	FK11X7R2A334K
X7R	0.47 $\mu$ F	$\pm 10\%$	100	FK20X7R2A474K	FK11X7R2A474K
X7R	0.68 $\mu$ F	$\pm 10\%$	100	FK20X7R2A684K	FK11X7R2A684K
X7R	1 $\mu$ F	$\pm 10\%$	100	FK20X7R2A105K	FK11X7R2A105K
X7R	1.5 $\mu$ F	$\pm 10\%$	100	FK20X7R2A155K	FK11X7R2A155K
X7R	2.2 $\mu$ F	$\pm 10\%$	100	FK20X7R2A225K	FK11X7R2A225K
X7S	3.3 $\mu$ F	$\pm 10\%$	100	FK20X7S2A335K	FK11X7S2A335K
X7S	4.7 $\mu$ F	$\pm 10\%$	100	FK20X7S2A475K	FK11X7S2A475K
X7R	0.1 $\mu$ F	$\pm 10\%$	250	FK20X7R2E104K	
X7R	0.15 $\mu$ F	$\pm 10\%$	250	FK20X7R2E154K	
X7R	0.22 $\mu$ F	$\pm 10\%$	250	FK20X7R2E224K	
X7R	47000pF	$\pm 10\%$	630	FK20X7R2J473K	
X7R	68000pF	$\pm 10\%$	630	FK20X7R2J683K	

## FK22 型

### 形状・尺寸



额定电压 Edc: 100 to 630V

温度特性	电容	容差	额定电压 E <sub>dc</sub> (V)	品名	
				FK22 型	
X7R	0.68 $\mu$ F	$\pm 10\%$	100	FK22X7R2A684K	
X7R	1 $\mu$ F	$\pm 10\%$	100	FK22X7R2A105K	
X7R	1.5 $\mu$ F	$\pm 10\%$	100	FK22X7R2A155K	
X7R	2.2 $\mu$ F	$\pm 10\%$	100	FK22X7R2A225K	
X7R	0.15 $\mu$ F	$\pm 10\%$	250	FK22X7R2E154K	
X7R	0.22 $\mu$ F	$\pm 10\%$	250	FK22X7R2E224K	
X7R	0.33 $\mu$ F	$\pm 10\%$	250	FK22X7R2E334K	
X7R	0.47 $\mu$ F	$\pm 10\%$	250	FK22X7R2E474K	
X7R	0.1 $\mu$ F	$\pm 10\%$	630	FK22X7R2J104K	

●要了解没有记载的电容量及产品说明, 请向本公司询问。

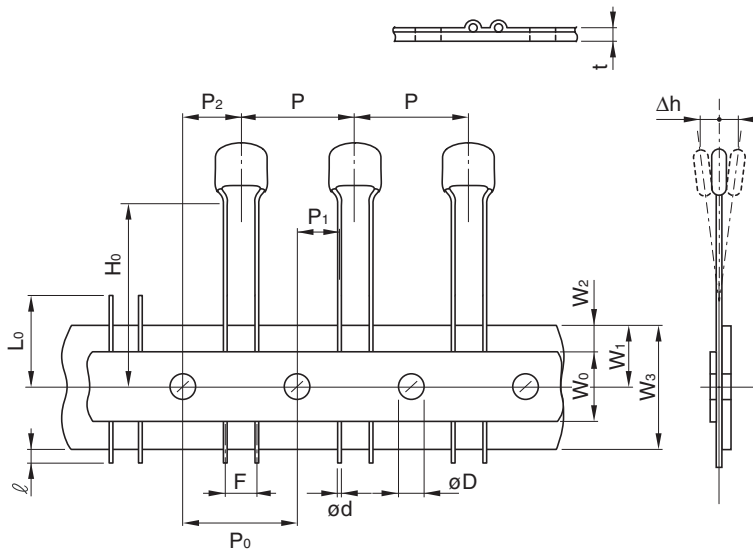
· 记载内容, 在没有予告的情况下有可能改进和变更, 请予以谅解。

## 包装形式

## 卷带尺寸

## FK1 系列

### (FK18/FK14/FK16/FK11 型)



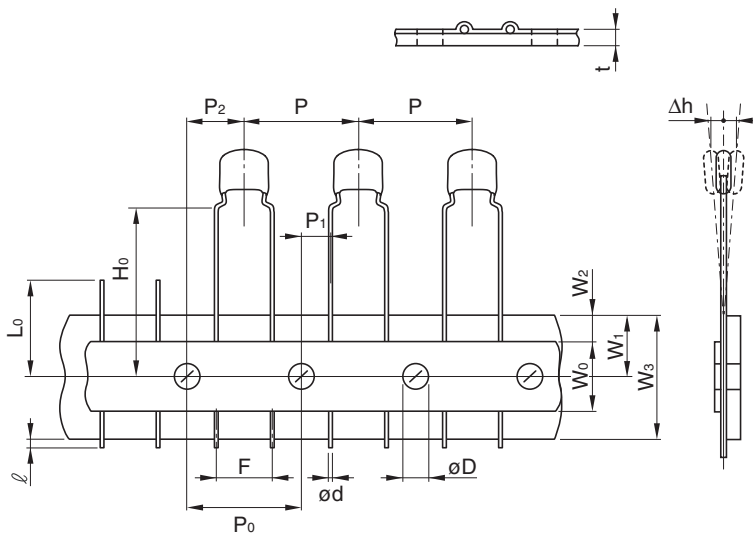
记号	尺寸(mm)
P	12.7±1.0
P <sub>0</sub> *1	12.7±0.3
P <sub>1</sub>	5.1±0.7
P <sub>2</sub>	6.35±1.3
W <sub>0</sub>	12.0±1.0
W <sub>1</sub>	9.0±0.5
W <sub>2</sub> *2	3.0max.
W <sub>3</sub>	18.0+1.0, -0.5
H <sub>0</sub>	16.0±0.5
ℓ	1.0max.
t	0.6±0.2
L <sub>0</sub>	11.0max.
F	2.5+0.5, -0.2
ød	ø0.5+0.1, -0.03
øD	ø4.0±0.2
Δh	0±2

\*1 20个间距时的累积间距偏差为±2mm。

\*2 粘贴胶带不得超出台纸。

## FK2 系列

### (FK28/FK24/FK26/FK20/FK22 型)



记号	尺寸(mm)
P	12.7±1.0
P <sub>0</sub> *1	12.7±0.3
P <sub>1</sub>	3.85±0.7
P <sub>2</sub>	6.35±1.3
W <sub>0</sub>	12.0±1.0
W <sub>1</sub>	9.0±0.5
W <sub>2</sub> *2	3.0max.
W <sub>3</sub>	18.0+1.0, -0.5
H <sub>0</sub>	16.0±0.5
ℓ	1.0max.
t	0.6±0.2
L <sub>0</sub>	11.0max.
F	5.0+0.8, -0.2
ød	ø0.5+0.1, -0.03
øD	ø4.0±0.2
Δh	0±2

\*1 20个间距时的累积间距偏差为±2mm。

\*2 粘贴胶带不得超出台纸。

## 包装个数

型名	个数
FK18, FK28	
FK14, FK24	2000个/1箱
FK16, FK26	
FK11, FK20, K22	1500个/1箱