

YXJ SERIES

105°C Miniaturized, Long Life

*Load Life : 105°C 4000~10000 hours.

RoHS
compliance



◆SPECIFICATIONS

Items	Characteristics																																																					
Category Temperature Range	-40~+105℃																																																					
Rated Voltage Range	6.3~100Vdc																																																					
Capacitance Tolerance	±20% (20℃,120Hz)																																																					
Leakage Current(MAX)	I=0.01CV or 3μA whichever is greater.(After 2 minutes) I=Leakage Current(μA) C=Capacitance(μF) V=Rated Voltage(Vdc)																																																					
Dissipation Factor(MAX) (tanδ)	<table><tr><td>Rated Voltage (Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>tanδ</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td><td>0.10</td><td>0.09</td><td>0.08</td></tr></table> (20℃,120Hz) When capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.										Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100	tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08																										
Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100																																														
tanδ	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08																																														
Endurance	After applying rated voltage with rated ripple current for specified time at 105℃, the capacitors shall meet the following requirements. <table><tr><td>Capacitance Change</td><td colspan="9">Within ±25% of the initial value.(6.3V:±30%)</td></tr><tr><td>Dissipation Factor</td><td colspan="9">Not more than 200% of the specified value.</td></tr><tr><td>Leakage Current</td><td colspan="9">Not more than the specified value.</td></tr></table> <table><tr><td rowspan="2">Case Size</td><td colspan="2">Life Time(hrs)</td></tr><tr><td>6.3~10Vdc</td><td>16~100Vdc</td></tr><tr><td>φD=5</td><td>4000</td><td>5000</td></tr><tr><td>φD=6.3,8</td><td>6000</td><td>7000</td></tr><tr><td>φD≥10</td><td>8000</td><td>10000</td></tr></table>										Capacitance Change	Within ±25% of the initial value.(6.3V:±30%)									Dissipation Factor	Not more than 200% of the specified value.									Leakage Current	Not more than the specified value.									Case Size	Life Time(hrs)		6.3~10Vdc	16~100Vdc	φD=5	4000	5000	φD=6.3,8	6000	7000	φD≥10	8000	10000
Capacitance Change	Within ±25% of the initial value.(6.3V:±30%)																																																					
Dissipation Factor	Not more than 200% of the specified value.																																																					
Leakage Current	Not more than the specified value.																																																					
Case Size	Life Time(hrs)																																																					
	6.3~10Vdc	16~100Vdc																																																				
φD=5	4000	5000																																																				
φD=6.3,8	6000	7000																																																				
φD≥10	8000	10000																																																				
Low Temperature Stability Impedance Ratio(MAX)	<table><tr><td>Rated Voltage (Vdc)</td><td>6.3</td><td>10</td><td>16</td><td>25</td><td>35</td><td>50</td><td>63</td><td>100</td></tr><tr><td>Z(-25℃)/Z(20℃)</td><td>4</td><td>3</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td><td>2</td></tr><tr><td>Z(-40℃)/Z(20℃)</td><td>8</td><td>6</td><td>4</td><td>3</td><td>3</td><td>3</td><td>3</td><td>3</td></tr></table> (120Hz)										Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100	Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2	Z(-40℃)/Z(20℃)	8	6	4	3	3	3	3	3																	
Rated Voltage (Vdc)	6.3	10	16	25	35	50	63	100																																														
Z(-25℃)/Z(20℃)	4	3	2	2	2	2	2	2																																														
Z(-40℃)/Z(20℃)	8	6	4	3	3	3	3	3																																														

◆MULTIPLIER FOR RIPPLE CURRENT

(6.3Vdc~50Vdc)

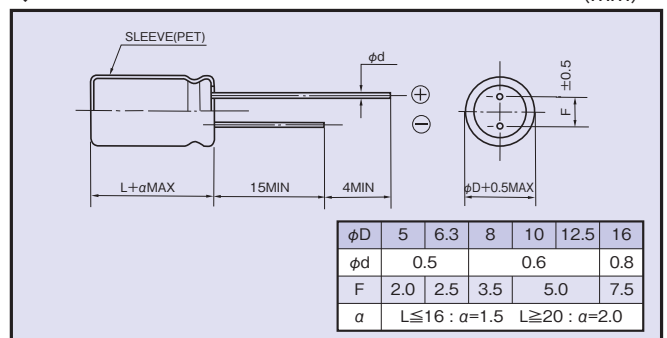
Frequency (Hz)	120	1k	10k	100k≤
Coefficient				
1uF	0.35	0.60	0.80	1.00
2.2~10uF	0.42	0.60	0.80	1.00
22~47uF	0.55	0.75	0.90	1.00
100~330uF	0.70	0.85	0.95	1.00
470~1000uF	0.75	0.90	0.98	1.00
2200~15000uF	0.80	0.95	1.00	1.00

(63Vdc~100Vdc)

Frequency (Hz)	120	1k	10k	100k≤
Coefficient	0.42	0.60	0.80	1.00

◆DIMENSIONS

(mm)



◆OPTION

	Code
PET Sleeve	Blank

◆PART NUMBER

□□□ YXJ □□□□□ M □□□ □□ D×L
 Rated Voltage Series Capacitance Capacitance Tolerance Option Lead Forming Case Size

◆STANDARD SIZE

Rated Voltage (Vdc)	Capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
				20°C, 100kHz	-10°C, 100kHz
6.3	100	5×11	150	0.90	3.6
	220	5×11	250	0.40	1.2
	330	6.3×11	340	0.22	0.87
	470	6.3×11	400	0.22	0.87
	1000	8×11.5	640	0.13	0.52
	2200	10×16	1300	0.062	0.25
	3300	10×20	1400	0.046	0.18
	4700	12.5×25	2230	0.032	0.11
	6800	12.5×25	2230	0.032	0.11
	10000	16×25	2930	0.021	0.060
	15000	16×35.5	3610	0.015	0.044
10	100	5×11	150	0.90	3.6
	220	5×11	250	0.40	1.2
	330	6.3×11	400	0.22	0.87
	470	6.3×11	400	0.22	0.87
	1000	10×12.5	865	0.080	0.32
	2200	10×20	1400	0.046	0.18
	3300	12.5×20	1900	0.041	0.14
	4700	12.5×25	2230	0.032	0.11
	6800	16×25	2930	0.021	0.060
16	1000	16×31.5	3450	0.019	0.056
	47	5×11	250	0.40	1.2
	100	5×11	250	0.40	1.2
	220	6.3×11	400	0.22	0.87
	330	6.3×11	400	0.22	0.87
	470	8×11.5	640	0.13	0.52
	1000	10×16	1210	0.062	0.25
	2200	12.5×20	1900	0.041	0.14
	3300	12.5×25	2230	0.032	0.11
25	4700	16×25	2930	0.021	0.060
	6800	16×31.5	3450	0.019	0.056
	33	5×11	250	0.40	1.2
	47	5×11	250	0.40	1.2
	100	5×11	250	0.40	1.2
	220	6.3×11	400	0.22	0.87
	330	8×11.5	640	0.13	0.52
	470	10×12.5	865	0.080	0.32
	1000	10×20	1400	0.046	0.18
35	2200	12.5×25	2230	0.032	0.11
	3300	16×25	2930	0.021	0.060
	4700	16×31.5	3450	0.019	0.056
	33	5×11	250	0.40	1.2
	47	5×11	250	0.40	1.2
	100	6.3×11	400	0.22	0.87
	220	8×11.5	640	0.13	0.52
	330	10×12.5	865	0.080	0.32
	470	10×16	1210	0.062	0.25

Rated Voltage (Vdc)	Capacitance (μ F)	Size ϕ D×L(mm)	Rated ripple current (mA r.m.s./105°C, 100kHz)	Impedance (Ω MAX)	
				20°C, 100kHz	-10°C, 100kHz
50	1	5×11	30	4.0	8.0
	2.2	5×11	43	2.5	6.0
	3.3	5×11	53	2.2	5.6
	4.7	5×11	88	1.9	5.0
	10	5×11	100	1.5	4.0
	22	5×11	180	0.70	2.8
	33	5×11	250	0.70	2.8
	47	6.3×11	295	0.30	1.2
	100	8×11.5	555	0.17	0.68
	220	10×16	1050	0.084	0.34
	330	10×20	1220	0.060	0.24
	470	12.5×20	1660	0.045	0.15
	1000	16×25	2730	0.032	0.096
	2200	16×35.5	3150	0.019	0.057
63	10	5×11	173	0.88	3.5
	22	5×11	173	0.88	3.5
	33	6.3×11	278	0.35	1.4
	47	6.3×11	278	0.35	1.4
	100	10×12.5	725	0.15	0.60
	220	10×20	1200	0.078	0.31
	330	12.5×20	1570	0.060	0.19
	470	12.5×25	1990	0.043	0.14
	1000	16×25	2730	0.032	0.096
100	1	5×11	20	4.5	15.0
	2.2	5×11	30	3.0	13.0
	3.3	5×11	40	2.7	11.0
	4.7	5×11	65	2.5	10.0
	10	6.3×11	267	0.57	2.3
	22	6.3×11	267	0.57	2.3
	33	8×11.5	462	0.36	1.4
	47	8×16	585	0.25	1.0
	100	10×20	1040	0.12	0.52
	220	12.5×25	1620	0.060	0.23
	330	16×25	2210	0.044	0.16

◆CHIP TYPE PART NUMBER

Rated Voltage		Series		Capacitance		Capacitance Tolerance		Option ※1	D×L Case Size
Rated Voltage(Vdc)	Code	Cap.(μF)	Code	Tolerance	Code				
6.3	6.3	4.7	4R7	±20%	M				4×6.1 8×10.5 16×21.5
10	10	220	220						
25	25	3300	3300						
100	100								

Please indicate the above information, when ordering.

Example
35 TZV 330 M 10×10.5

※1 Option : Standard item is blank.

◆RADIAL LEAD TYPE PART NUMBER

Rated Voltage		Series		Capacitance		Capacitance Tolerance		Option ※2	Lead Forming ※3	D×L Case Size
Rated Voltage(Vdc)	Code	Cap.(μF)	Code	Tolerance	Code			EFC etc	TA, KC, CA etc	5×11 10×12.5 12.5×40
6.3	6.3	0.1	OR1	±20%	M					
10	10	0.47	OR47							
25	25	1	1							
100	100	10	10							
		1000	1000							

Please indicate the above information, when ordering.

Example
 *Long lead type 50 PX 2R2 M EFC 5×11
 *Taping type 35 ZLJ 220 M TA 8×16

※2 Option : Please confirm each series page.

※3 Lead Forming : Please refer to TAPING SPECIFICATIONS and LEAD CUTTING FORMING SPECIFICATIONS. (P46~48)

PACKAGING SPECIFICATION

◆RADIAL LEAD TYPE

Q'ty (pcs)

SIZE (mm)		LONG LEAD		LEAD FORMING		TAPING
		BULK PACKAGE	ALIGNED PACKAGE	BULK PACKAGE	ALIGNED PACKAGE	
φ4	4×5	5,000	—	5,000	—	2,000
	4×7	5,000	—	5,000	—	2,000
φ5	5×5	5,000	—	5,000	—	2,000
	5×7	5,000	—	5,000	—	2,000
	5×11	3,000	—	5,000	—	2,000
φ6.3	6.3×5	3,000	—	5,000	—	2,000
	6.3×7	3,000	—	5,000	—	2,000
	6.3×11	2,000	—	3,000	—	2,000
	6.3×14	2,000	—	3,000	—	2,000
	6.3×25	1,000	—	1,000	—	—
	6.3×30	1,000	—	1,000	—	—
	6.3×40	1,000	—	1,000	—	—
	6.3×50	1,000	—	1,000	—	—
	8×5	3,000	—	5,000	—	1,000
	8×7	3,000	—	5,000	—	1,000
φ8	8×7.5	2,000	—	2,000	—	1,000
	8×9	2,000	—	2,000	—	1,000
	8×10.8	2,000	—	2,000	—	1,000
	8×11.5	2,000	—	2,000	—	1,000
	8×16	1,000	—	1,000	—	1,000
	8×20	1,000	—	1,000	—	1,000
	8×23	1,000	—	1,000	—	1,000
	8×25	—	500	—	500	—
	8×30	—	500	—	500	—
	8×35	—	500	—	500	—
	8×40	—	500	—	500	—
	8×45	—	500	—	500	—
	8×50	—	500	—	500	—
	8×55	—	500	—	500	—
	8×60	—	500	—	500	—
φ10	10×9	1,000	—	1,000	—	500
	10×10	1,000	—	1,000	—	500
	10×12.5	1,000	—	1,000	—	500
	10×16	1,000	—	1,000	—	500
	10×20	1,000	—	1,000	—	500
	10×23	1,000	—	1,000	—	500
	10×25	1,000	500	1,000	500	500
	10×28	1,000	500	1,000	500	500
	10×30	—	500	—	500	—
	10×35	—	500	—	500	—
	10×40	—	500	—	500	—
	10×45	—	500	—	500	—
	10×50	—	500	—	500	—
	10×55	—	500	—	500	—
	10×60	—	500	—	500	—

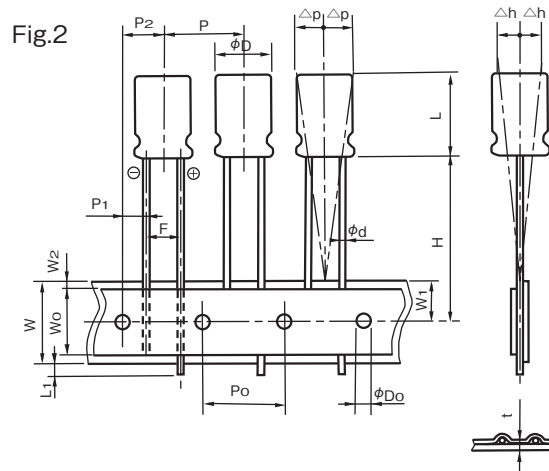
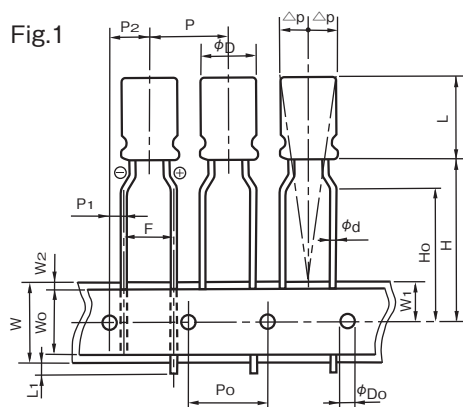
SIZE (mm)		LONG LEAD		LEAD FORMING		TAPING
		BULK PACKAGE	ALIGNED PACKAGE	BULK PACKAGE	ALIGNED PACKAGE	
φ12.5	12.5×16	1,000	—	1,000	500	500
	12.5×20	1,000	500	1,000	500	500
	12.5×25	1,000	500	1,000	500	500
	12.5×30	600	500	600	500	500
	12.5×35	600	500	600	500	500
	12.5×40	600	500	600	500	500
	12.5×45	—	500	—	500	—
	12.5×50	—	500	—	500	—
	12.5×60	—	500	—	500	—
φ14.5	14.5×20	—	500	—	500	—
	14.5×25	—	500	—	500	—
	14.5×30	—	500	—	500	—
	14.5×31.5	—	500	—	500	—
	14.5×35	—	500	—	500	—
	14.5×40	—	500	—	500	—
	14.5×45	—	500	—	500	—
φ16	16×16	600	—	600	400	250
	16×20	600	200	600	400	250
	16×25	600	200	600	400	250
	16×30	—	200	—	200	250
	16×31.5	—	200	—	200	250
	16×35	—	200	—	200	250
	16×35.5	—	200	—	200	250
	16×40	—	200	—	200	250
	16×45	—	200	—	200	—
	16×50	—	200	—	200	—
φ18	18×16	500	—	—	200	250
	18×20	500	200	—	200	250
	18×25	500	200	—	200	250
	18×30	—	200	—	200	250
	18×31.5	—	200	—	200	250
	18×35	—	200	—	200	250
	18×35.5	—	200	—	200	250
	18×40	—	200	—	200	250
	18×45	—	200	—	200	—
	18×50	—	200	—	200	—

•There are some differences between actual package quantity and above list.

•For the sizes stated both bulk and aligned package, aligned package is standard for exporting carton.

◆TAPING SPECIFICATIONS

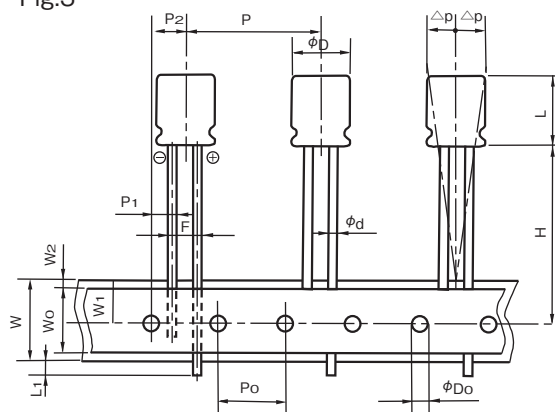
◆ DIMENSIONS



◆ SPECIFICATION TABLE

(mm)

Items	Code	5mm Height		7mm or 7.5mm Height				Tolerance
		$\phi 4 \sim \phi 8$		$\phi 4 \sim \phi 6.3$	$\phi 4 \sim \phi 6.3$	$\phi 8$		
Taping code		T5	TZ	T5	TZ	TA	T7	
Applicable Fig. No.		Fig.2	Fig.1	Fig.2	Fig.1	Fig.1	Fig.2	
Dia. of lead	ϕd	0.45		0.45				± 0.05
Height of body	L	6.5		8.5				MAX
Distance from center to center of next body	P	12.7		12.7				± 1.0
Distance from center to center of next driving hole	P ₀	12.7		12.7				± 0.2
Distance between center of driving hole and lead	P ₁	5.1	3.85	5.1	3.85		4.6	± 0.5
Distance between center of driving hole and body	P ₂	6.35		6.35				± 1.0
Pitch of lead	F	2.5	5.0	2.5	5.0		3.5	$+0.8$ -0.2
Width of mounting tape	W	18.0		18.0				± 0.3
Width of adhesive tape	W ₀	5.0		5.0				MIN
Distance between center of driving hole and mounting tape edge	W ₁	9.0		9.0				± 0.5
Max. allowable distance between mounting and adhesive tape edges	W ₂	1.5		1.5				MAX
Distance between center of driving hole and bottom of body	H	17.5		17.5		20.0		± 0.75
Distance between center of driving hole and clinch part of lead	H ₀	—	16.0	—	16.0		—	± 0.5
End of lead	L ₁	0.5		0.5				MAX
Dia. of driving hole	ϕD_0	4.0		4.0				± 0.2
Off alignment of body top	$\triangle h$	1.0		1.0				MAX
Off alignment of body top	$\triangle p$	1.0		1.0				MAX
Sum of thickness for mounting and adhesive tape without lead dia	t	0.6		0.6				± 0.3
Quantity (pcs)		2000 ($\phi 8$:1000)						

Fig.3

◆ SPECIFICATION TABLE

(mm)

Items	Code	9mm or more Height							※ Tolerance
		φ5, φ6.3		φ8		φ10	φ12.5	φ16	φ18
Taping code		T1	TA	TA	T7	T8	G4	GC	
Applicable Fig. No.		Fig.2	Fig.1	Fig.1	Fig.2	Fig.2	Fig.2	Fig.3	
Dia. of lead	φd	0.5		0.6			0.8		±0.05
Height of body	L	13.0		22.0		30.0	42.0		MAX
Distance from center to center of next body	P	12.7					15.0	30.0	±1.0
Distance from center to center of next driving hole	P ₀	12.7					15.0	15.0±0.3	±0.2
Distance between center of driving hole and lead	P ₁	5.1	3.85		4.6	3.85	5.0	3.75	±0.5
Distance between center of driving hole and body	P ₂	6.35					7.5		±1.0
Pitch of lead	F	2.5	5.0		3.5	5.0±0.8		7.5±0.8	+0.8 -0.2
Width of mounting tape	W	18.0							±0.3
Width of adhesive tape	W ₀	5.0							MIN
Distance between center of driving hole and mounting tape edge	W ₁	9.0							±0.5
Max. allowable distance between mounting and adhesive tape edges	W ₂	1.5							MAX
Distance between center of driving hole and bottom of body	H	18.5		20.0		18.5 ^{+0.75} _{-0.5}			±0.75
Distance between center of driving hole and clinch part of lead	H ₀	—	16.0		—	—			±0.5
End of lead	L ₁	0.5							MAX
Dia. of driving hole	φD ₀	4.0					±0.2		
Off alignment of body top	△h	1.0					MAX		
Off alignment of body top	△p	1.0					MAX		
Sum of thickness for mounting and adhesive tape without lead dia	t	0.6							±0.3
Quantity (pcs)		2000		1000		500		250	

※For the case that tolerance is specified individually, the value shall have the priority.

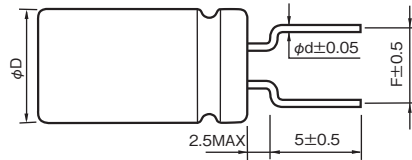
◆LEAD CUTTING FORMING SPECIFICATIONS

Rubycon provides lead-formed and lead-cut products to facilitate mounting on printed circuit boards, as well as products with leads specially processed (kink formed) for self supporting insertions to printed circuit boards.

•Lead forming

($\phi 5 \sim \phi 8$)

Lead forming code : FA

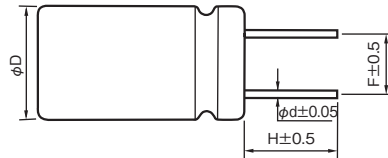


(mm)			
ϕD	5	6.3	8
ϕd	0.5		0.6
F	5.0		

•Lead cutting

($\phi 5 \sim \phi 18$)

Lead cutting code : CA
CC
CE

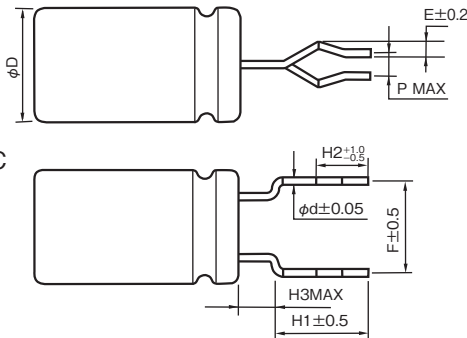


(mm)								
ϕD	5	6.3	8	10	12.5	14.5	16	18
H	5.0 (CA) 4.0 (CC) 3.5 (CE)							
ϕd	0.5		0.6		0.8			
F	2.0	2.5	3.5	5.0		7.5		

•Kinked lead forming

($\phi 5 \sim \phi 8$)

Kinked lead forming code : KC

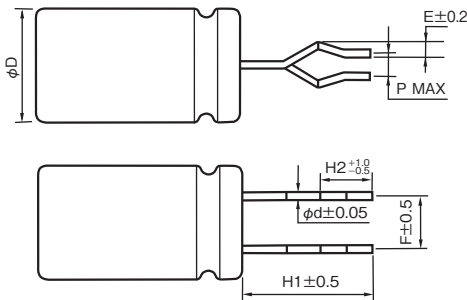


(mm)								
ϕD	5	6.3	8	10	12.5	14.5	16	18
H1	4.5							
H2	2.8							
H3	2.5			—				
F	5.0					7.5		
P	1.0							
E	1.2			1.3				
ϕd	0.5		0.6			0.8		

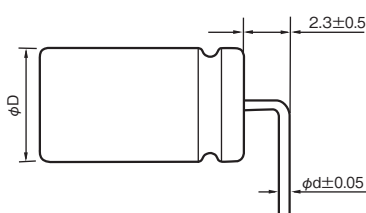
•Kinked lead cutting

($\phi 10 \sim \phi 18$)

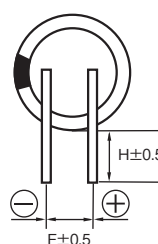
Kinked lead cutting code : KC



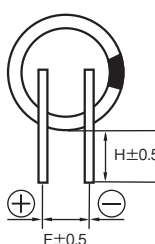
•Low profile with horizontal mounting ($\phi 10 \sim \phi 18$)



Type A



Type B



(mm)								
ϕD	10, 12.5				14.5, 16, 18			
Code	RI	RK	RX	SG	RI	RK	RX	SG
ϕd	0.6				0.8			
F	5.0				7.5			
H	4.0		3.5		4.0		3.5	
Type	A	B	A	B	A	B	A	B