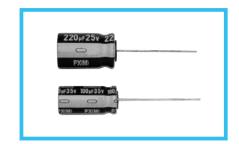




- Load life of 20000 hours at 105°C.
- Compliant to the RoHS directive (2002/95/EC).

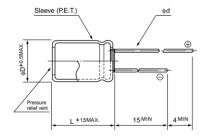




## Specifications

Item	Performance Characteristitcs										
Category Temperature Range	−55 to +105°C										
Rated Voltage Range	10 to 35V										
Rated Capacitance Range	1 to 4700μF										
Capacitance Tolerance	±20% (120Hz, 20°C)										
Leakage Current	After 1 minute's application of rated voltage, leakage current is not more than 0.03CV or 4 (mA), whichever is greater.										
_	Rated voltage (V) 10 16 25 3					35	Measurement frequency : 120Hz				
Tangent of loss angle (tan $\delta$ )	tan δ (MAX) 0.20		0.20	0.16	0.14	0.12	2	Tempe	Temperature : 20°C		
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.										
	Rated voltage (V)			10	16	25		35	Measureme	ent frequency : 120Hz	
Stability at Low Temperature	Impedance ratio	Z-25°C / Z+20°C		3	2	2		2			
	(MAX.)	Z-40°C	/ Z+20°C	4	4	4		4			
	The specifications listed at right shall be met when the Capac				Capacitance change Within ±30% of the initial capacitance va		Within ±30% of the initial capacitance value				
Endurance	capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 20000 hours at 105°C, $\tan \delta$ 300% or less than the initial specified value									300% or less than the initial specified value	
				Less than or equal to the initial specified value							
Shelf Life							2000 hours and then performing voltage treatment based on JIS C 5101-4 for the endurance characteristics listed above.				
Marking	Printed with white color letter on dark brown sleeve.										

## Radial Lead Type

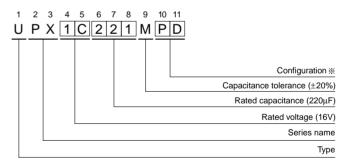




				(mm)
φD	10	12.5	16	18
Р	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.8	0.8

• Please refer to page 20 about the end seal configulation.

Type numbering system (Example : 16V 220μF)



Please refer to page 20, 21, 22 about the formed or taped product spec. Please refer to page 4 for the minimum order quantity.



## Dimensions

V (Code)		10	(1A)	16	(1C)	25	(1E)	35 (1V)	
Cap. (μF)	Item Code	Case size φD X L (mm)	Rated ripple (mArms) 105°C / 100kHz	Case size φD × L (mm)	Rated ripple (mArms) 105°C / 100kHz	Case size $\phi D \times L$ (mm)	Rated ripple (mArms) 105°C / 100kHz	Case size φD × L (mm)	Rated ripple (mArms) 105°C / 100kHz
1	010		1 1 1		1		1 1 1	10×12.5	59
2.2	2R2		1 1				] ] ]	10× 12.5	84
3.3	3R3		 		 		! !	10×12.5	101
4.7	4R7						1	10× 12.5	143
10	100						1	10× 12.5	294
22	220		! !		1		1	10× 12.5	336
33	330		1 1 1		1		1 1 1	10× 12.5	378
47	470		 		1		1	10× 12.5	420
100	101		 		1	10× 12.5	420	10×20	672
220	221		1	10×16	504	12.5×20	840	12.5×25	1008
330	331	10×16	504	10×20	672	12.5×25	1008	16×25	1344
470	471	10×20	672	12.5×20	1008	16×25	1344	16×31.5	1680
1000	102	12.5 × 25	1008	16×25	1344	16×31.5	1680	18×40	2184
2200	222	16×31.5	1680	18×35.5	2016		1 1		_
3300	332	18×35.5	2016	18×40	2184		 		
4700	472	18×40	2184		1		1		

## • Frequency coefficient of rated ripple current

Frequency	120Hz	1kHz	10kHz	100kHz or more	
Coefficient	0.75	0.80	0.90	1.00	