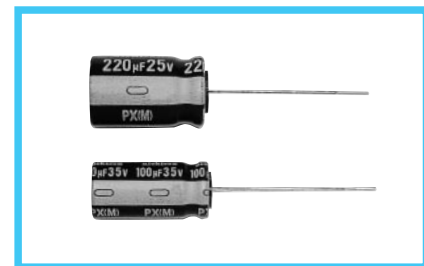


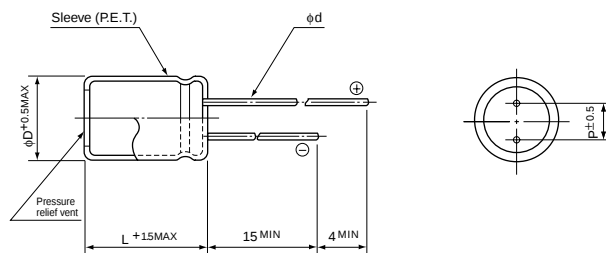
- Load life of 20000 hours at 105°C.



Specifications

Item	Performance Characteristics						
Category Temprature Range	-55 ~ +105°C						
Rated Voltage Range	10 ~ 35V						
Rated Capacitance Range	1 ~ 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 (μA), whichever is greater.						
tan δ	Rated voltage (V)	10	16	25	35	Measurement frequency : 120Hz	
	tan δ (MAX)	0.20	0.16	0.14	0.12	Temperature : 20°C	
	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF.						
Stability at Low Temperature	Rated voltage (V)		10	16	25	35	Measurement frequency : 120Hz
	Impedance ratio	Z-25°C / Z+20°C	3	2	2	2	
		Z-40°C / Z+20°C	4	4	4	4	
Endurance	After an application of D.C. bias voltage plus the rated ripple current for 20000 hours at 105°C, the peak voltage shall not exceed the rated D.C. voltage, capacitor meet the characteristic requirements listed below.						
	Capacitance change		Within ±30% of initial value				
	tan δ		300% or less of initial specified value				
	Leakage current		Initial specified value or less				
Shelf Life	After leaving capacitors under no load at 105°C for 1000hours, they meet the specified value for endurance characteristics listed above.						
Marking	Printed with white color letter on dark brown sleeve.						

Radial Lead Type



φD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
φd	0.6	0.6	0.8	0.8

Type numbering system (Example : 16V 220µF)

1	2	3	4	5	6	7	8	9	10	11
U	P	X	1	C	2	2	1	M	P	D
			Configuration ※							
					Capacitance tolerance (±20%)					
					Rated Capacitance (220µF)					
					Rated voltage (16V)					
					Series name					
					Type					

※ Configuration

φ D	Pb free lead finishing Pb free PET sleeve
10	PD
12.5 ~ 18	HD

※ Please contact to us if other configurations are required.

Please refer to page 19, 20, 21 about the formed or taped product spec.
Please refer to page 3 for the minimum order quantity.

● Dimension table in next page.

■ Dimensions

D × L (mm)

Cap. (μF)	V (Code) Item Code	10 (1A)		16 (1C)		25 (1E)		35 (1V)	
		Case size φD × L (mm)	Rated Ripple (mA rms) 105°C / 100kHz	Case size φD × L (mm)	Rated Ripple (mA rms) 105°C / 100kHz	Case size φD × L (mm)	Rated Ripple (mA rms) 105°C / 100kHz	Case size φD × L (mm)	Rated Ripple (mA rms) 105°C / 100kHz
1	010							10 × 12.5	59
2.2	2R2							10 × 12.5	84
3.3	3R3							10 × 12.5	101
4.7	4R7							10 × 12.5	143
10	100							10 × 12.5	294
22	220							10 × 12.5	336
33	330							10 × 12.5	378
47	470							10 × 12.5	420
100	101					10 × 12.5	420	10 × 20	672
220	221			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				
3300	332	18 × 35.5	2016	18 × 40	2184				
4700	472	18 × 40	2184						

Ripple (mA rms) at 105°C 100kHz