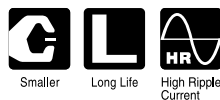
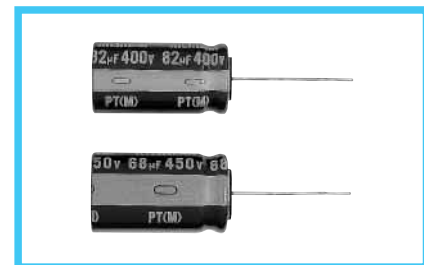
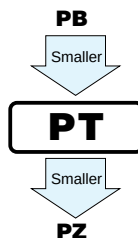


PT series Miniature Sized, High Ripple Current, Long Life



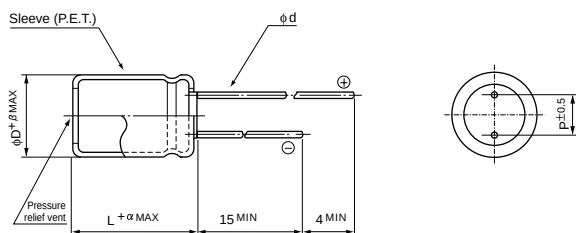
- High ripple current.
- Suited for ballast application.
- Adapted to the RoHS directive (2002/95/EC).



Specifications

Item	Performance Characteristics							
Category Temperature Range	-25 ~ +105°C							
Rated Voltage Range	200 ~ 450V							
Rated Capacitance Range	15 ~ 820μF							
Capacitance Tolerance	±20% at 120Hz, 20°C							
Leakage Current	After 2 minutes' application of rated voltage, leakage current is not more than 0.06CV+10 (μA) , whichever is greater.							
tan δ	Measurement frequency : 120Hz, Temperature : 20°C							
	Rated voltage (V)	200	220	250	400	420	450	
	tan δ (MAX.)	0.12	0.12	0.12	0.15	0.20	0.20	
Stability at Low Temperature	Measurement frequency : 120Hz							
	Rated voltage (V)	200	220	250	400	420	450	
	Impedance ratio ZT / Z20 (MAX.)	Z-25°C / Z+20°C	3	3	3	8	8	8
Endurance	After an application of D.C. bias voltage plus the rated ripple current for 5000 hours at 105°C the peak voltage shall not exceed the rated D.C. voltage, capacitors meet the characteristic requirements listed at right.						Capacitance change	Within ±20% of initial value
							tan δ	200% 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 1000 hours, they meet the specified value for endurance characteritics listed above.							
Marking	Printed with white color letter on dark brown sleeve.							

Radial Lead Type

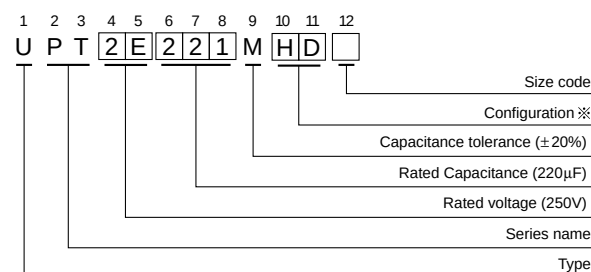


	(mm)						
φD	10	12.5	16	18	20	22	25
P	5.0	5.0	7.5	7.5	10.0	10.0	12.5
φd	0.6	0.6*	0.8	0.8	1.0	1.0	1.0
β	0.5	0.5	0.5	0.5	0.5	1.0	1.0

* In case L > 25 for the φ12.5 dia. unit, lead dia. φd = 0.8mm.

α	(φD < 20): 1.5
	(φD ≥ 20): 2.0

Type numbering system (Example : 250V 220μF)



※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
10	DD
12.5 ~ 18	HD
20 ~ 25	RD

Please refer to page 21, 22, 23 about the formed or taped product spec.
Please refer to page 3 for the minimum order quantity.

● Dimension table in next page.

■ Dimensions

φ D × L (mm)

Cap	Code	200		220		250		400		420		450	
		2D		2P		2E		2G		W6		2W	
15	150											10 × 31.5	0.15
18	180									10 × 31.5	0.17	12.5 × 25	0.18
22	220							10 × 31.5	0.21	12.5 × 25	0.20	12.5 × 31.5	0.22
27	270							12.5 × 25	0.24	12.5 × 31.5	0.24	12.5 × 31.5	0.25
33	330							12.5 × 31.5	0.29	12.5 × 31.5	0.27	12.5 × 35.5	0.28
39	390							12.5 × 31.5	0.32	12.5 × 35.5	0.31	12.5 × 40	0.32
47	470					10 × 31.5	0.27	12.5 × 35.5	0.37	12.5 × 40	0.36	16 × 31.5	0.38
56	560			10 × 31.5	0.29	12.5 × 25	0.31	12.5 × 40	0.42	16 × 31.5	0.43	16 × 35.5	0.44
68	680	10 × 31.5	0.35	12.5 × 25	0.34	12.5 × 31.5	0.36	16 × 31.5	0.46	16 × 35.5	0.51	16 × 40	0.49
										▲18 × 31.5	0.51	▲18 × 31.5	0.48
82	820	12.5 × 25	0.41	12.5 × 31.5	0.39	12.5 × 31.5	0.40	16 × 31.5	0.50	16 × 40	0.57	18 × 35.5	0.55
										▲18 × 31.5	0.57		
100	101	12.5 × 31.5	0.48	12.5 × 31.5	0.43	12.5 × 35.5	0.46	16 × 35.5	0.58	18 × 35.5	0.61	18 × 40	0.65
								▲18 × 31.5	0.58				
120	121	12.5 × 31.5	0.53	12.5 × 35.5	0.49	12.5 × 40	0.53	16 × 40	0.66	18 × 40	0.66	22 × 40	0.77
								▲18 × 35.5	0.67				
150	151	12.5 × 35.5	0.62	12.5 × 40	0.58	16 × 31.5	0.62	18 × 40	0.77	22 × 40	0.80	22 × 50	0.92
												▲25 × 40	0.92
180	181	12.5 × 40	0.70	16 × 31.5	0.67	16 × 35.5	0.72	22 × 40	0.85	22 × 50	0.95	25 × 50	1.10
						▲18 × 31.5	0.72			▲25 × 40	0.95		
220	221	16 × 31.5	0.76	16 × 35.5	0.77	16 × 40	0.83						
		▲18 × 31.5	0.81	▲18 × 31.5	0.77	▲18 × 35.5	0.83						
270	271	16 × 35.5	0.88	16 × 40	0.88	18 × 40	0.95	22 × 50	1.30	25 × 50	1.20		
		▲18 × 31.5	0.87	▲18 × 35.5	0.88			▲25 × 40	1.30				
330	331	18 × 35.5	1.01	18 × 40	1.01	22 × 40	1.05	25 × 50	1.40				
390	391	18 × 40	1.13	22 × 40	1.15								
470	471	22 × 40	1.20			22 × 50	1.45						
						▲25 × 40	1.45						
560	561			22 × 50	1.50	25 × 50	1.55						
				▲25 × 40	1.50								
680	681	22 × 50	1.50	25 × 50	1.60								
		▲25 × 40	1.50										
820	822	25 × 50	1.60									Case size	※

※ : Rated Ripple (A rms) at 105°C 120Hz
 ▲ : In this case, 6 will be put at 12th digit of type numbering system.

• Frequency coefficient of rated ripple current

Frequency	50Hz	120Hz	300Hz	1kHz	10kHz~
Coefficient	0.80	1.00	1.25	1.40	1.60