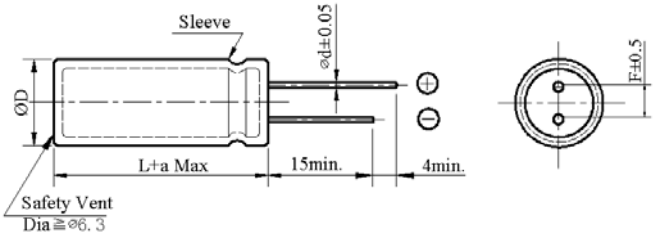
PQ Series

- **105℃ Long Life (10,000 hours), Miniature size**
  Body diameter of Φ10mm to Φ12.5mm with high ripple current capability.

◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-25 ~ +105℃
Working Voltage Range	200 ~ 450Vdc
Capacitance Range	33 ~ 220 μF
Capacitance Tolerance	±20% (at 25℃ and 120Hz)
Dissipation Factor (tanδ) (at 25℃ , 120Hz)	Rated Voltage (V): 200 / 220 / 250 / 400 / 420 / 450 tanδ(Max): 0.20 / 0.20 / 0.20 / 0.20 / 0.25 / 0.25 The above values should be increased by 0.02 for every additional 1000μF
Leakage Current	I=0.03CV + 10μA I : Leakage current (μA) C : Rated capacitance (μF) V : Rated voltage (V) Impress the rated voltage for 2 minutes.
Endurance	The following requirements shall be satisfied when the capacitor are restored to 25℃ after the rated voltage applied for 10,000 hours at 105℃ . Capacitance change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ specified value
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 25℃ after the rated voltage applied for 1,000 hours at 105℃ without voltage applied. Capacita ce change: ≦ ±20% of the initial value Dissipation factor(tanδ): ≦ 200% of the specified value Leakage current: ≦ 200% of the specified value
Others	Conforms to JIS-C-5101-4 (1998), characteristic W.

◆ DIMENSIONS (mm)



ΦD	10	12.5 L< 35	12.5 L≥35
ΦD	ΦD + 1.0 Max		
Φd	0.6	0.6	0.8
F	5.0	5.0	
a	L + 1.5 Max	≤ 35 L+1.5 Max ≥ 40 L+2.0 Max	

◆ PART NUMBERING SYSTEM (Example : 200V 220μF)

P	Q	2	D	2	2	1	M	N	N	1	2	5	0						

Special Request
Size code(1250 : 12.5×50)
Lead length code
Lead forming Type code
Capacitance tolerance code(M:±20%)
Capacitance code (220μF)
Voltage code (200V)
Series code (PQ)

PQ Series

◆ **Case size & Permissible rated ripple current: (mA rms) at 105℃ / 120Hz**

Vdc / uF	200		220		250	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
68					10×45	505
82			10×45	530	10×50	610
100	10×45	630	10×50	660	12.5×35	690
120	10×55	750	12.5×35	740	12.5×40	790
150	12.5×35	800	12.5×40	860	12.5×45	920
180	12.5×40	920	12.5×45	990		
220	12.5×50	1090				

Vdc / uF	400		420		450	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
33			10×50	370	10×55	360
					12.5×30	370
39	10×50	400	10×55	410	12.5×35	420
			12.5×30	390		
47	10×55	450	12.5×35	450	12.5×40	480
	12.5×35	440				
56	12.5×40	500	12.5×40	520	12.5×45	530
68	12.5×45	580	12.5×50	580		
82	12.5×55	650				

◆ **RIPPLE CURRENT MULTIPLIERS**
Frequency Multipliers

Vdc	Frequency (Hz)				
	60(50)	120	500	1K	10K≤
200 ~ 250	0.80	1.00	1.20	1.30	1.40
400 ~ 450	0.80	1.00	1.25	1.40	1.50