PHA Series

• 150℃ 2,000Hrs assured.

Solvent-proof

- Wide Temperature range.
- Suitable to fit for automotive equipment.
- RoHS compliant.
- Halogen-free capacitors are also available.

PXA → PHA

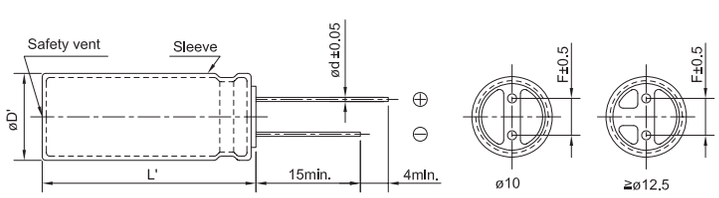
Wide Temp.

SPECIFICATIONS

Item	Characteristics
Rated Voltage Range	10 ~ 50 V_{DC}
Operating Temperature Range	-40 ~ +150℃
Capacitance Tolerance	±20%(M) (at 20℃, 120Hz)
Leakage Current	I = 0.03CV (μA) or 4μA, whichever is greater. Where, I:Max. leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V_{DC}) (at 20℃, 1 minute)
Dissipation Factor(Tanδ)	Rated Voltage(V_{DC}): 10 / 16 / 25 / 35 / 50 Tanδ(Max.): 0.24 / 0.20 / 0.16 / 0.14 / 0.12 (at 20℃,120Hz)
Temperature Characteristics (Max. impedance ratio)	Rate Voltage(V_{DC}): 10 ~ 50 Z(-25℃)/Z(+20℃): 2 Z(-40℃)/Z(+20℃): 4 (at 120Hz)
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied at 150℃ for 2,000 hours. Capacitance change ≦ ±30% of the initial value Tanδ ≦ 300% of the initial specified value Leakage Current ≦ The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 150℃ without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change ≦ ±30% of the initial value Tanδ ≦ 300% of the initial specified value Leakage Current ≦ The initial specified value
Others	Satisfied characteristics KS C IEC 60384-4

DIMENSIONS OF PHA Series

Unit(mm)



Marking : BLACK SLEEVE, WHITE INK

øD	10	12.5	16
ød	0.6	0.6	0.8
F	5.0	5.0	7.5
øD'	øD+0.5 max.		
L'	L+2.0 max.		

RATINGS OF PHA Series

WVDC	10		16		25	
Items / μF	ø D×L(mm)	Rated Ripple Current (mArms/150℃,120Hz)	ø D×L(mm)	Rated Ripple Current (mArms/150℃,120Hz)	ø D×L(mm)	Rated Ripple Current (mArms/150℃,120Hz)
220					10×16	370
330			10×16	370	12.5×20	600
470	10×16	370	12.5×20	600	16×31.5	1,100
1,000	12.5×20	600	16×31.5	1,100	16×35.5	1,150
2,200	16×31.5	1,100	16×35.5	1,150		
3,300	16×35.5	1,150				

WVDC	35		50	
Items / μF	ø D×L(mm)	Rated Ripple Current (mArms/150℃,120Hz)	ø D×L(mm)	Rated Ripple Current (mArms/150℃,120Hz)
100	10×16	370	10×20	300
220	10×20	460	12.5×20	400
330	12.5×20	600	12.5×25	500
470	12.5×25	750	16×35.5	700
1,000	16×35.5	1,150		

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Freq.(Hz) / Cap.(μF)	120	1k	10k	50k	100k
100 ~ 1,000	1.00	1.15	1.30	1.33	1.40
2,200 ~ 3,300	1.00	1.03	1.05	1.06	1.08