

PH series

- Super low ESR, Long Life capability
- Rated voltage :4.0~50V.
- Endurance:20,000hours at 105°C
- Applications:DC/DC Converter, Voltage Regulators, Decoupling Applications for Computer Motherboards, etc.
- ROHS compliant
- Halogen Free compliant



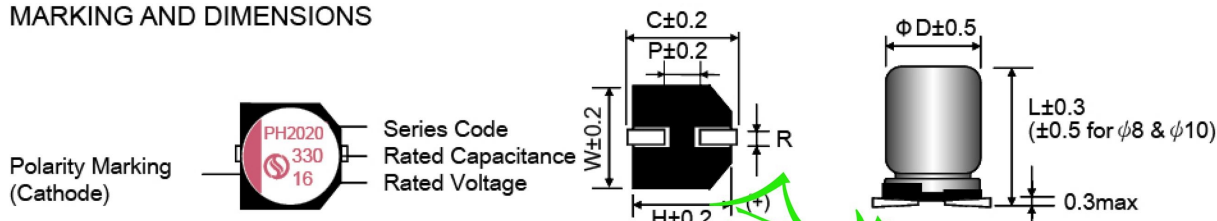
SPECIFICATIONS

Items	Conditions	Characteristics
Category Temperature Range	—	-55 to +105°C
Rated Voltage Range	—	4.0~50V
Capacitance Tolerance	at 20°C, 120HZ	±20%(M)
Surge Voltage	at 105°C	Rated voltage ×1.15V
Leakage Current	at 20°C After 2 minutes	I ≤ 0.2CV or 300(μA) Whichever is greater measured, after 2 minutes application of rated working voltage at +20°C.
Dissipation Factor (tan δ)	at 20°C, 120Hz	Please see the attached characteristics list
Characteristics of Impedance at low, high temperature	at -55°C, 100kHz	$Z(-55^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 1.25$
	at -25°C, 100kHz	$Z(-25^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 1.15$
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 20,000 hours at 105°C.	Appearance NO significant damage.
		Capacitance change ≤ ±20% of the initial value.
		DF(tanδ) ≤ 150% of the initial specified value.
		ESR ≤ 150% of the initial specified value.
		Leakage current ≤ The initial specified value.
Damp Heat (Steady State)	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjecting them to subjecting them to store at 60°C, 90 to 95% RH for 1,000 hours, without DC applied.	Appearance NO significant damage.
		Capacitance change ≤ ±20% of the initial value.
		DF(tanδ) ≤ 150% of the initial specified value.
		ESR ≤ 150% of the initial specified value.
		Leakage current ≤ The initial specified value.
Surge Voltage	The capacitors shall be subjected to 1,000 cycles each consisting of charge with the surge voltages specified at 105°C for 30 seconds through a protective resistor (R=1kΩ) and discharge for 5 minutes 30seconds	Appearance NO significant damage.
		Capacitance change ≤ ±20% of the initial value.
		DF(tanδ) ≤ 150% of the initial specified value.
		ESR ≤ 150% of the initial specified value.
		Leakage current ≤ The initial specified value.

※ Note: If any doubt arises, measure the leakage current after following voltage treatment.

Voltage treatment : DC rated voltage are applied to the capacitors for 120 minutes at 105°C.

MARKING AND DIMENSIONS



(Unit:mm)

Size Code	ϕD	L	W	H	C	R	P
6.3×6	6.3	6.0	6.6	6.6	7.3	0.5~0.8	2.1
6.3×7	6.3	7.0	6.6	6.6	7.3	0.5~0.8	2.1
6.3×9.5	6.3	9.5	6.6	6.6	7.3	0.5~0.8	2.1
8×7	8.0	7.0	8.3	8.3	9.3	0.8~1.1	3.2
8×9.5	8.0	9.5	8.3	8.3	9.3	0.8~1.1	3.2
8×12	8.0	12.0	8.3	8.3	9.0	0.8~1.1	3.2
10×10.5	10.0	10.5	10.3	10.3	11.0	0.8~1.1	4.6
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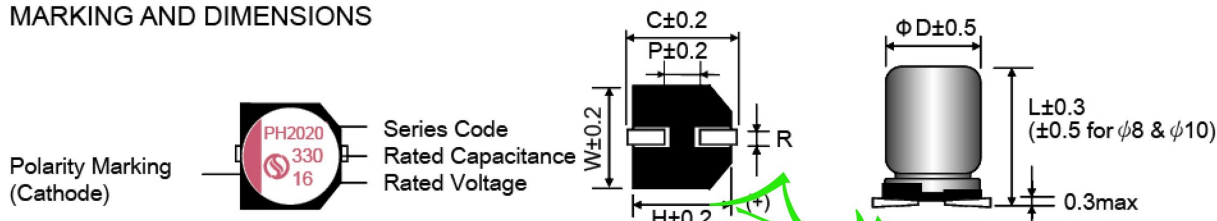
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