

EH series

- Low ESR, High Voltage, High ripple current capability
- Rated voltage :35~100V
- Endurance:2,000hours at 105°C
- Applications: LED Driver, LED Power Supply etc.
- ROHS compliant
- Halogen Free compliant



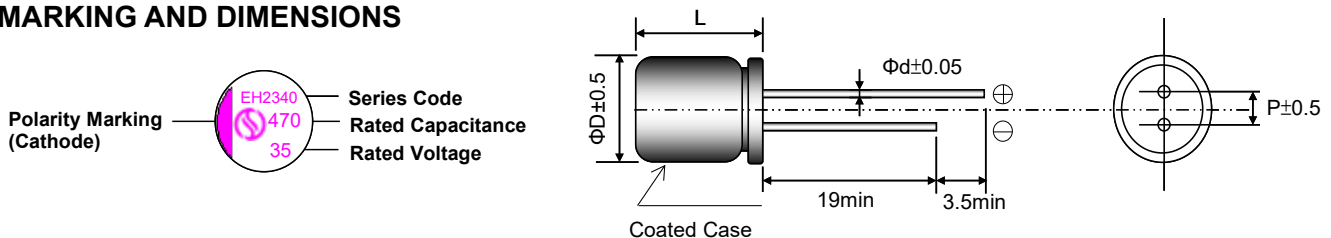
EH

SPECIFICATIONS

Items	Conditions	Characteristics	
Category Temperature Range	—	-55 to +105°C	
Rated Voltage Range	—	35 ~ 100V	
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. Please see the attached characteristics list	
Dissipation Factor (tan δ)	at 20°C, 120Hz	Please see the attached characteristics list	
Low Temperature Characteristics (Max. Impedance Ratio)	at -55°C, 100kHz	Z(-55°C)/Z(+20°C)	≤ 1.25
	at -25°C, 100kHz	Z(-25°C)/Z(+20°C)	≤ 1.15
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2,000 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 store 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 30 seconds.	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	6.3x6	6.3x8	8x6	8x8	8x11.5	10x10	10x11.5	10x16
ΦD	6.3	6.3	8	8	8	10	10	10
L	L+1.0 max	L+1.5 max	L+1.5 max	L+1.0 max	L+1.5 max	L+1.0 max	L+1.5 max	L+1.0 max
Φd	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
P	2.5	2.5	3.5	3.5	3.5	5.0	5.0	5.0

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STANDARD RATINGS

Rated Voltage (S.V.)	Cap (μF)	Size Code DxL	Leakage current (μA) max.	ESR (mΩ) max. 100k to 300kHz / 20°C	Rated Ripple Current (mA rms) 105°C/100kHz	D.F.(tanδ) max. 120Hz / 20°C
35 (40.3)	22	6.3×6	300	70	1450	0.12
	68	6.3×8	476	40	1500	0.12
	82	8×6	574	60	1800	0.12
	100	8×8	700	30	2100	0.12
	100	8×11.5	700	26	2300	0.12
	100	10×11.5	700	24	3000	0.12
	150	8×8	1050	30	2500	0.12
	180	8×11.5	1260	26	2800	0.12
	220	10×10	1540	26	3000	0.12
	220	10×11.5	1540	24	3200	0.12
	330	10×11.5	2310	24	3600	0.12
	470	10×16	3290	20	5000	0.12
50 (57.5)	12	6.3×8	300	60	1500	0.12
	33	6.3×8	330	60	1500	0.12
	33	8×6	330	60	1500	0.12
	47	8×8	470	32	1850	0.12
	68	8×11.5	680	30	2250	0.12
	47	8×11.5	470	30	2250	0.12
	100	10×11.5	1000	28	2560	0.12
	150	10×11.5	1500	28	2620	0.12
63 (72.5)	22	6.3×8	300	60	1500	0.12
	33	8×8	415	32	2050	0.12
	33	10×10	415	32	2200	0.12
	47	8×11.5	592	26	2200	0.12
	56	10×10	705	30	2300	0.12
	82	10×11.5	1033	26	2350	0.12
	100	10×11.5	1260	25	2550	0.12
80 (92.0)	22	8×8	352	35	1850	0.12
	33	8×11.5	528	32	1950	0.12
	47	10×10	752	33	2200	0.12
	68	10×11.5	1088	28	2350	0.12
100 (115.0)	15	8×11.5	300	40	1850	0.12
	22	10×11.5	440	38	2250	0.12
	27	10×11.5	540	38	2250	0.12



FREQUENCY COEFFICIENT FOR RIPPLE CURRENT

Frequency	120Hz ≤ f < 1kHz	1kHz ≤ f < 10kHz	10kHz ≤ f < 100kHz	100kHz ≤ f < 500kHz
Coefficient	0.05	0.3	0.7	1.0