

HD series

- 105°C high-temperature resistance, high ripple current and long life.
- 10000hours load life.
- Suitable for LED and electronic rectifier.
- RoHS Compliance
- 105°C耐高溫、高紋波、長壽命。
- 壽命10000小時。
- 適用於節能燈與電子整流器。



SPECIFICATIONS

Items 項目	Characteristics 特性							
Capacitance Tolerance 靜電容量誤差	± 20%(120Hz,20°C)							
Operating Temperature Range 適用溫度範圍	-40 ~ +105°C				-25 ~ +105°C			
Rated Voltage Range 額定電壓範圍	160 ~ 400VDC				450VDC			
Leakage Current 洩漏電流	I ≤ 0.02CV + 10 (µA) (After 2 minutes application of DC rated voltage, at 20 °C)				I ≤ 0.03CV + 10 (µA) (After 2 minutes application of DC rated voltage, at 20 °C)			
Dissipation Factor 散逸因素(tan δ)	Measurement Frequency: 120Hz. Temperature: 20°C							
	Rated Voltage(V)	160	200	250	350	400	450	420~500
	tan δ(Max)	0.15	0.15	0.15	0.15	0.20	0.20	0.20
Low Temperature Stability 低溫特性 Impedance Ratio(Max) 阻抗比率(最大值)	Measurement Frequency: 120Hz.							
	Rated Voltage(V)	160	200	250	350	400	450	
	Z(-25°C)/Z(20°C)	3	3	3	5	5	6	
	Z(-40°C)/Z(20°C)	6	6	6	6	6	-	
Load Life 負荷壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 10,000 hours(8 φ ~10 φ :8,000 hours) at 105°C.							
	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 放置壽命	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to them 4.1 of JIS C5101-4.							
	Capacitance Change	Within ± 20% of Initial Value						
	tan δ	200% or less of Initial Specified Value						
	Leakage Current	500% or less of Initial Specified Value						
Standards 參照標準	JIS C 5101-4 (IEC 60384)							

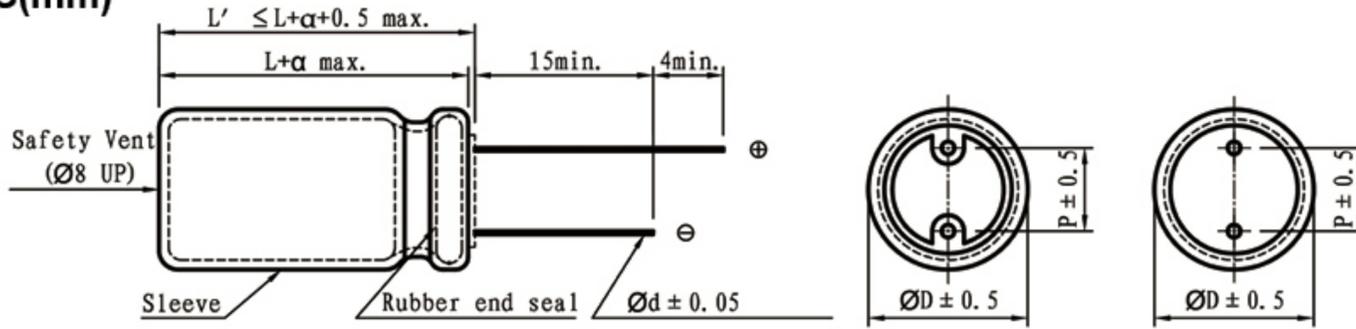
Frequency Coefficient of Permissible Ripple Current

Frequency (Hz)	50	120	1K	10K	100K
Coefficient	0.45	0.55	0.75	0.90	1.00

The endurance of capacitors is reduced with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use , the rms ripple current has to be reduced.

HD series

DIMENSIONS(mm)



ϕD	8	10	13	16	18	22
P	3.5	5.0	5.0	7.5	7.5	10
ϕd	0.5	0.6	0.6	0.8	0.8	0.8

α	(L < 16) 1.0 (L ≥ 16) 2.0
----------	------------------------------

STANDARD RATINGS

D×L(mm) ; R.C.(mA rms) at 105°C 100KHz.

Cap (μF)	V	160		200		250	
		D x L	R.C.	D x L	R.C.	D x L	R.C.
2.2		8x12	80	8x12	90	8x12	90
3.3		8x12	90	8x12	102	10x13	110
4.7		8x12	98	8x16	110	10x16	120
5.6		8x16	104	8x16	118	10x16	125
6.8		8x16	115	10x13	128	10x16	130
8.2		10x16	125	10x16	220	10x16	240
10		10x16	255	10x16	260	10x20	290
15		10x16	430	10x20	430	13x21	460
22		10x20	510	13x21	510	13x21	610
33		13x21	580	13x21	610	13x25	650
47		13x25	670	13x25	670	16x26	730
68		16x26	770	16x26	770	16x32	930
100		16x26	900	16x26	1030	18x32	1210
150		18x32	1270	18x35	1330	22x35	1530
220		18x35	1410	22x35	1710		

Cap (μF)	V	350		400		450	
		D x L	R.C.	D x L	R.C.	D x L	R.C.
1		8x12	74	8x16	85	10x13	90
1.5		10x13	80	10x13	95	10x16	100
2.2		10x16	98	10x16	105	10x16	110
3.3		10x16	110	10x16	115	10x16	120
4.7		10x20	145	10x20	148	10x20	150
5.6		13x21	165	13x21	180	13x21	200
6.8		13x21	200	13x21	230	13x21	260
8.2		13x21	250	13x21	270	13x21	290
10		13x21	290	13x21	300	13x21	330
15		13x25	350	13x25	390	13x25	430
22		16x26	450	16x26	500	16x32	600
33		16x32	510	16x32	650	16x36	710
47		16x36	670	18x26	850	18x32	900
68		18x32	860	18x32	960	18x35	1150
82		18x32	1150	18x35	1300	18x40	1400
100		18x35	1250	18x40	1400		

※ 13mm may be replaced by 12.5mm upon customer's request.

HD