

# LARGE CAN TYPE

# HF Series



- Withstanding 7000 hours application of high ripple current at 105°C.

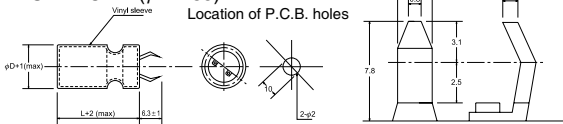


## SPECIFICATION

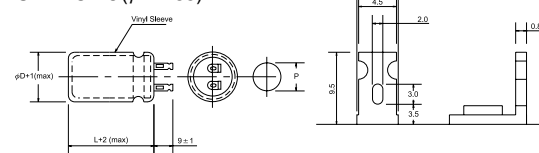
Item	Characteristic							
Operation Temperature Range	-40 ~ +105°C							
Rated Working Voltage	160 ~ 450VDC							
Capacitance Tolerance (120Hz 20°C)	±20%(M)							
Leakage Current (20°C)	$I \leq 0.02CV$ or 3 (mA) *Whichever is smaller after 5 minutes I : Leakage Current(μA) C : Rated Capacitance(μF) V : Working Voltage(V)							
Surge Voltage (20°C)	W.V.	160	200	250	350	400	450	
	S.V.	200	250	300	400	450	500	
Dissipation Factor (tan δ) (120Hz 20°C)	Rated Voltage	160	200	250	350	400	450	
	tan δ	0.15	0.15	0.15	0.15	0.15	0.15	
Low Temperature Stability	Impedance ratio at 120Hz							
	Rated Voltage	160 ~ 250V				350 ~ 450V		
	-25°C / +20°C	4				6		
Load Life	After 7000 hours application of W.V. and +105°C ripple current value, the capacitor shall meet the following limits. (DC + ripple peak voltage ≤ rate working voltage)							
	Capacitance Change	≤ ±20% of initial value						
	Dissipation Factor	≤ 175% of initial specified value						
	Leakage current	≤ initial specified value						
Shelf Life	At +105°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)							

## TERMINAL TYPE

▲ P.C.B. TERMINAL (SNAP IN)  
SYMBOL:W(φ22~35)

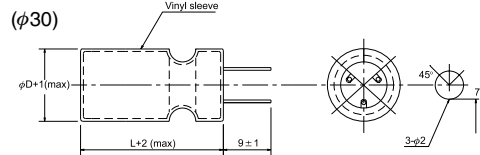
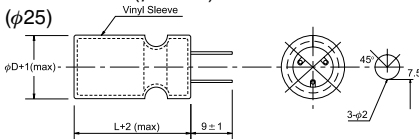


▲ LUG TERMINAL  
SYMBOL:G(φ22~35)

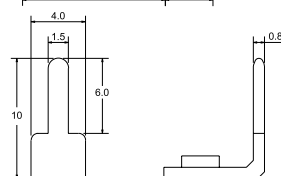
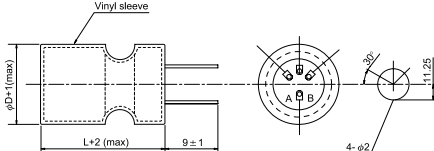


φD	22	25	30	35
P	8	10	10	14

▲ P.C.B. TERMINAL  
SYMBOL:V(φ25~35)



(φ35)  
A.B. blank terminals



## RIPPLE CURRENT COEFFICIENTS

Temperature(°C)	40	60	70	85	105
Multiplier	2.50	2.20	2.00	1.80	1.00

Frequency(Hz)	60	120	400	1k	10k
W.V.	Multiplier				
≥ 160V	0.80	1.00	1.10	1.30	1.40

● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)  
Max ripple current : A(rms) 105°C 120Hz

μF	Code	V(Code) φD	160 (2C)				200 (2D)				250 (2E)			
			22	25	30	35	22	25	30	35	22	25	30	35
180	181										25			
											0.84			
220	221					25					30			
						0.89					0.92			
270	271					30					35	25		
						1.06					1.09	1.02		
330	331	25				30	25				40	30		
		1.13				1.17	1.17				1.27	1.21		
390	391	30				35	30				45	35	25	
		1.27				1.30	1.31				1.39	1.34	1.30	
470	471	30	25			40	30	25			50	40	30	
		1.39	1.39			1.51	1.44	1.49			1.60	1.56	1.54	
560	561	35	30			45	35	30				45	35	
		1.55	1.56			1.65	1.59	1.66				1.70	1.70	
680	681	40	35	25			40	30				50	40	30
		1.80	1.83	1.78			1.86	1.83				1.97	1.98	1.93
820	821	50	40	30			45	35					45	35
		2.08	2.02	2.00			2.04	2.03					2.17	2.14
1000	102		45	35				45	30					40
			2.35	2.35				2.50	2.32					2.50
1200	122		50	40	30			50	40					50
			2.56	2.57	2.51			2.71	2.70					2.84
1500	152			45	35				45					
				2.90	2.86				3.04					
1800	182			50	40				50					
				3.32	3.30				3.48					
2200	222				50									L(mm)
					3.85									R.C.

μF	Code	V(Code) φD	350 (2V)				400 (2G)				450 (2W)			
			22	25	30	35	22	25	30	35	22	25	30	35
47	470										25			
											0.45			
56	560										30			
											0.53			
68	680					25					30	25		
						0.56					0.58	0.58		
82	820					30					35	30		
						0.66					0.68	0.69		
100	101	25				30	25				40	30	25	
		0.63				0.67	0.67				0.74	0.70	0.73	
120	121	30	25			35	30				45	35	30	
		0.74	0.74			0.79	0.80				0.85	0.82	0.85	
150	151	35	30			40	30	25				40	35	
		0.88	0.89			0.94	0.89	0.92				0.97	1.02	
180	181	40	30	25		45	35	30				45	35	30
		1.02	0.98	1.01		1.08	1.04	1.09				1.12	1.11	1.15
220	221	45	35	30			40	35					40	35
		1.09	0.99	1.10			1.12	1.17					1.19	1.24
270	271		40	35			50	40	30				50	40
			1.24	1.30			1.36	1.37	1.34				1.46	1.45
330	331		45	35	30			45	35					45
			1.44	1.44	1.48			1.60	1.57					1.68
390	391			40	35			50	40					50
				1.58	1.63			1.73	1.72					1.82
470	471			50	40				45					
				1.90	1.89				1.99					
560	561				40				50					
					1.97				2.16					
680	681				50									L(mm)
					2.38									R.C.