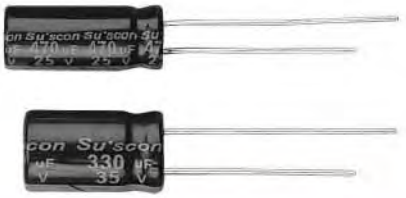
HF series

- Very low impedance at high frequency range.
- Endurance with ripple current: 105°C 2,000 to 8,000 hours.
- RoHS Compliance.
- 在高頻迴路中具有很低的阻抗。
- 耐高紋波電流，105°C壽命達到2,000~8,000小時。



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	-55 ~ +105°C							
Rated Voltage Range 工作電壓範圍	6.3 ~ 100V							
Leakage Current 洩漏電流	I≦0.01CV or 3 (μA) (After 2 minutes application of DC working voltage, at 20°C)							
Dissipation Factor 散逸因素 (tan δ)	Rated Voltage (V)	6.3	10	16	25	35	50	63	100
	tan δ (Max)	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08
	When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (20°C、120Hz)								
Low Temperature Stability 低溫特性 Impedance Ratio (Max) 阻抗比率 (最大值)	Measurement Frequency: 120Hz.								
	Rated Voltage (V)	6.3	10	16	25	35	50	63	100
	Z (-25°C) / Z (20°C)	4	3	2	2	2	2	2	2
	Z (-55°C) / Z (20°C)	8	6	4	3	3	3	3	3
Load Life 負荷壽命	Time	φ	5	6.3	8	10	13	16	18
		hours	2,000	2,000	3,000	5,000	7,000	8,000	8,000
	Capacitance Change	≦±20% of the Initial Value							
	tan δ	≦200% of the Initial Specified Value							
	Leakage Current	≦The Initial Specified Value							
Shelf Life 放置壽命	1000hours, no voltage applied, at 105°C。 After Test: UR to be applied for 30 minutes, 24 to 48hours before measurement.								
	Capacitance Change	≦±20% of the Initial Value							
	tan δ	≦200% of the Initial Specified Value							
	Leakage Current	≦The Initial Specified Value							
Standards 參照標準	JIS C 5101-4-1 and JIS C 5101-2								

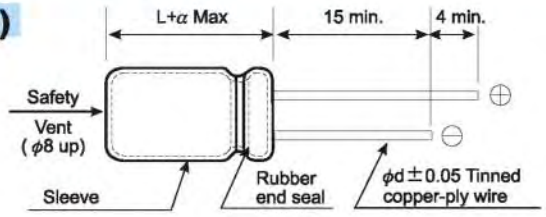
PERMISSIBLE RIPPLE CURRENT

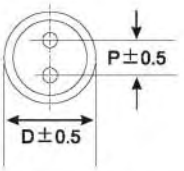
Frequency Coefficient

Capacitance (μF)	Frequency (Hz)			
	120	1K	10K	100K
5.6 ~ 180	0.40	0.75	0.90	1.00
220 ~ 560	0.50	0.85	0.94	1.00
680 ~ 1800	0.60	0.87	0.95	1.00
2200 ~ 3900	0.75	0.90	0.95	1.00
4700 ~ 18000	0.85	0.95	0.98	1.00

HF series

DIMENSIONS (mm)





φD	5	6.3	8	10	13	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.5	0.6	0.6	0.8	0.8

α	(L<16) 1.0 (L≧16) 2.0

STANDARD RATINGS

DxL (mm); R.C.: (mA rms) at 105°C, 100KHz; IMP: (Ω max) at 20°C, -10°C,100KHz.

Cap (μF) \ WV(V)(Code)	6.3 (0J)				10 (1A)				16 (1C)				25 (1E)			
Item	D x L	IMP 20°C	IMP -10°C	R.C.	D x L	IMP 20°C	IMP -10°C	R.C.	D x L	IMP 20°C	IMP -10°C	R.C.	D x L	IMP 20°C	IMP -10°C	R.C.
47									5x11	0.500	1.000	170	5x11	0.490	1.000	175
100					5x11	0.500	1.000	170	6.3x11	0.250	0.500	295	6.3x11	0.250	0.500	295
150	5x11	0.500	1.000	170									6.3x15	0.180	0.350	420
220					6.3x11	0.240	0.500	390	6.3x15	0.170	0.360	410	8x12	0.120	0.240	650
330	6.3x11	0.240	0.500	390	6.3x15	0.180	0.350	400	8x12	0.120	0.230	660	8x16	0.090	0.180	750
													10x13	0.090	0.180	770
390													8x20	0.079	0.150	820
470	6.3x15	0.180	0.360	400	8x12	0.120	0.230	650	8x16	0.089	0.180	740	10x16	0.067	0.136	1060
									10x13	0.090	0.180	770				
560									8x20	0.080	0.160	830				
680	8x12	0.120	0.240	655	8x16	0.090	0.180	830	10x16	0.067	0.136	1070	10x20	0.052	0.104	1230
					10x13	0.090	0.180	860								
820	10x13	0.091	0.180	860									10x25	0.044	0.090	1450
1000	8x16	0.091	0.190	830	8x20	0.080	0.150	1010	10x20	0.052	0.103	1270	10x30	0.037	0.073	1720
					10x16	0.067	0.136	1250					13x21	0.037	0.076	1670
1200	8x20	0.082	0.170	1060	10x20	0.052	0.103	1420	10x25	0.045	0.090	1450				
	10x16	0.067	0.136	1250												
1500	10x20	0.051	0.103	1420	10x25	0.044	0.090	1640	10x30	0.036	0.074	1700	13x25	0.030	0.060	1960
									13x21	0.038	0.076	1670				
1800					10x30	0.036	0.074	1930					13x30	0.024	0.050	2320
													16x22	0.029	0.068	2220
2200	10x25	0.044	0.090	1640	13x21	0.038	0.077	1650	13x25	0.030	0.060	1970	13x35	0.022	0.043	2520
													18x20	0.027	0.056	2500
2700	10x30	0.038	0.075	1930					13x30	0.024	0.050	2330	13x40	0.016	0.034	2860
									16x22	0.028	0.058	2220	16x26	0.027	0.043	2570
3300	13x21	0.037	0.075	1650	13x25	0.030	0.060	1960	13x35	0.022	0.043	2520	16x32	0.019	0.038	3020
													18x25	0.020	0.040	2750
3900	13x25	0.030	0.060	1960	13x30	0.024	0.050	2320	13x40	0.017	0.034	2880	16x36	0.017	0.033	3140
									16x26	0.022	0.043	2570				
					16x22	0.028	0.058	2230	18x20	0.028	0.055	2490	18x32	0.018	0.035	3340
4700	13x30	0.024	0.050	2320	13x35	0.022	0.043	2520	16x32	0.018	0.038	3020	16x40	0.015	0.030	3720
									18x25	0.020	0.040	2750	18x35	0.016	0.031	3690
5600	13x35	0.021	0.043	2520	13x40	0.017	0.034	2880	16x36	0.017	0.034	3160	18x40	0.015	0.030	3810
					16x26	0.022	0.044	2570								
	16x22	0.028	0.057	2230	18x20	0.027	0.056	2490	18x32	0.017	0.035	3350				
6300									16x40	0.014	0.030	3720				
6800	13x40	0.017	0.034	2880	16x32	0.018	0.038	3020								
	16x26	0.022	0.043	2570												
	18x20	0.027	0.055	2490	18x25	0.020	0.040	2750								
8200	16x32	0.019	0.038	3020	16x36	0.017	0.034	3150	18x35	0.016	0.032	3670				
					18x32	0.017	0.036	3340								
10000	16x36	0.016	0.033	3150	16x40	0.015	0.030	3720	18x40	0.015	0.030	3810				
	18x25	0.020	0.040	2750	18x35	0.016	0.031	3670								
12000	16x40	0.015	0.030	3720	18x40	0.015	0.030	3810								
	18x32	0.017	0.035	3340												
15000	18x35	0.016	0.031	3670												
18000	18x40	0.015	0.030	3810												

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

HF series

STANDARD RATINGS

DxL (mm); R.C.: (mA rms) at 105°C, 100KHz; IMP: (Ω max) at 20°C,-10°C,100KHz.

Cap (μF) \ WV(V)(Code)	35 (1V)				50 (1H)				63 (1J)				100 (2A)			
Item	D x L	IMP 20°C	IMP -10°C	R.C.	D x L	IMP 20°C	IMP -10°C	R.C.	D x L	IMP 20°C	IMP -10°C	R.C.	D x L	IMP 20°C	IMP -10°C	R.C.
5.6													5x11	2.000	5.200	90
12									5x11	1.800	4.000	145	6.3x11	1.200	3.100	120
18													6.3x15	0.620	1.800	200
22					5x11	0.900	1.800	165	6.3x11	1.000	2.000	250	8x12	0.540	1.600	250
27													10x13	0.480	1.400	350
33	5x11	0.490	1.000	185									8x16	0.360	0.980	320
													10x16	0.340	0.910	460
39									6.3x15	0.600	1.400	340	8x20	0.280	0.750	450
47					6.3x11	0.440	0.900	270								
56	6.3x11	0.250	0.500	300									10x20	0.270	0.710	580
68					6.3x15	0.310	0.620	370	8x12	0.340	0.740	410	10x25	0.200	0.530	760
100	6.3x15	0.170	0.360	410	8 x12	0.210	0.430	490	8x16	0.260	0.650	540	10x30	0.160	0.430	910
									10x13	0.254	0.510	550	13x21	0.160	0.430	840
120					8x16	0.160	0.320	640	10x16	0.190	0.380	620	13x25	0.120	0.320	1010
					10x13	0.150	0.320	630								
150	8x12	0.120	0.230	625					8x20	0.210	0.510	690				
180					8x20	0.120	0.240	740	10x20	0.144	0.290	890	13x30	0.095	0.270	1220
					10x16	0.130	0.250	860					16x22	0.120	0.320	1200
220	8x16	0.090	0.180	740	10x20	0.087	0.180	1060	10x25	0.130	0.260	1060	13x35	0.088	0.250	1420
	10x13	0.090	0.170	770									16x26	0.082	0.230	1400
270	8x20	0.079	0.160	820									13x40	0.060	0.180	1600
													18x20	0.085	0.240	1400
330	10x16	0.067	0.136	1060	10x25	0.073	0.150	1260	10x30	0.090	0.180	1310	16x32	0.059	0.180	1740
									13x21	0.084	0.170	1290	18x25	0.070	0.200	1610
390					10x30	0.054	0.110	1520	13x25	0.070	0.140	1730	16x36	0.053	0.150	1950
					13x21	0.058	0.120	1490					18x32	0.059	0.170	1820
470	10x20	0.052	0.103	1230					13x30	0.054	0.110	2100	16x40	0.042	0.120	2100
									16x22	0.058	0.120	1780				
560	10x25	0.044	0.090	1450	13x25	0.044	0.087	1850					18x35	0.053	0.150	1940
680	10x30	0.037	0.073	1700	13x30	0.038	0.078	2230	13x35	0.046	0.093	2280	18x40	0.042	0.120	1320
	13x21	0.038	0.076	1670	16x22	0.047	0.095	1850	16x26	0.050	0.100	2170				
									18x20	0.054	0.110	2300				
820					13x35	0.033	0.065	2300	13x40	0.042	0.084	2570				
									16x32	0.042	0.085	2680				
					18x20	0.042	0.083	1990	18x25	0.042	0.085	2690				
1000	13x25	0.030	0.060	1960	13x40	0.029	0.058	2510	16x36	0.035	0.071	2780				
					16x26	0.034	0.068	2250								
1200	13x30	0.024	0.050	2320	16x32	0.027	0.055	2710	16x40	0.030	0.060	2360				
	16x22	0.028	0.057	2220	18x25	0.028	0.057	2610	18x32	0.032	0.064	2960				
1500	13x35	0.022	0.043	2520	16x36	0.025	0.050	2810	18x35	0.030	0.060	3120				
1800	13x40	0.016	0.034	2880	16x40	0.020	0.042	3210	18x40	0.025	0.050	3220				
	16x26	0.022	0.044	2570												
	18x20	0.027	0.055	2510	18x32	0.025	0.050	3010								
2200	16x32	0.018	0.038	3020	18x35	0.022	0.045	3110								
	18x25	0.020	0.040	2750												
2700	16x36	0.017	0.033	3160	18x40	0.020	0.040	3410								
	18x32	0.018	0.036	3340												
3300	16x40	0.015	0.030	3720												
	18x35	0.016	0.031	3690												
3900	18x40	0.015	0.030	3810												

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