



Chip type, Large Capacitance, Low ESR Series



- Large capacitance, Low ESR than FA Series
- Complied to the RoHS directive

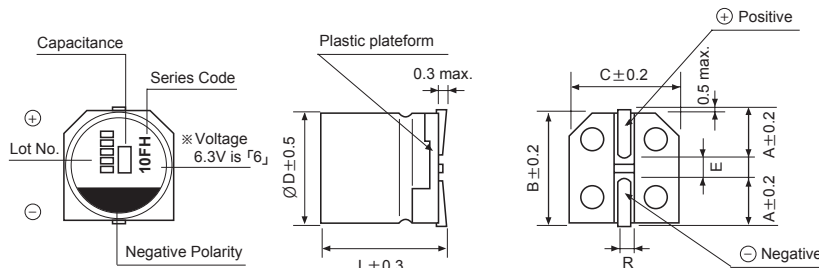


Item	Characteristics	
Operating temperature range	-55 ~ +105°C	
Leakage current max. *	Less than or equal to the value of Table1	
Capacitance tolerance	±20% at 120Hz, 20°C	
Dissipation factor max.	Less than or equal to the value of Table1	
ESR	Less than or equal to the value of Table1	
Temperature characteristics (Impedance ratio at 100kHz)	Z-55°C / Z+20°C	Z+105°C / Z+20°C
	0.75~1.25	0.75~1.25
Load life (after application of the rated voltage for 2000 hours at 105°C)	Leakage current	Less than specified value
	Capacitance change	Within ±20% of initial value
	ESR	Less than 150% of specified value
	tanδ	Less than 150% of specified value
Resistance to soldering heat (Refer to Page 25 for soldering recommendation)	Leakage current	Less than specified value
	Capacitance change	Within ±10% of initial value
	tanδ	Less than 130% of specified value

\* In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C.

## DRAWING

Unit : mm



## PART NUMBER SYSTEM (See Page 42)

Size	∅D	L	B	C	E	A	R
5 × 5.9	5	5.9	5.3	5.3	1.4	2.2	0.5~0.8
6.3 × 5.9	6.3	5.9	6.6	6.6	2.2	2.45	0.5~0.8
8 × 6.9	8	6.9	8.3	8.3	3.2	2.9	0.5~0.8
8 × 11.9	8	11.9	8.3	8.3	3.2	2.9	0.8~1.1
10 × 12.6	10	12.6	10.3	10.3	4.6	3.2	0.8~1.1

## DIMENSIONS

μF \ WV(SV)	2.5(3.3)	4(5.2)	6.3(8.2)	10(11.5)	16(18.4)
39					5 × 5.9
68				5 × 5.9	6.3 × 5.9
100			5 × 5.9		
120				6.3 × 5.9	8 × 6.9
150		5 × 5.9			
180	5 × 5.9				
220			6.3 × 5.9		
270				8 × 6.9	
330		6.3 × 5.9			
390	6.3 × 5.9		8 × 6.9		
470					10 × 12.6
560		8 × 6.9		10 × 12.6	
680	8 × 6.9	8 × 11.9			
820	8 × 11.9				
1200		8 × 11.9	8 × 11.9		
1500	8 × 11.9	8 × 11.9			
2700	10 × 12.6				
3300	10 × 12.6				

← Case size ∅D × L (mm)

**FH** Series

● Table 1. FH(SMD type) Series Characteristics List

WV	μF	ØD(mm)	L(mm)	ESR(mΩ)max. 100~300kHz	Ripple current (mA rms)at 105°C 100kHz	Dissipation factor 120Hz	Leakage Current (μA)(max.) after 2 minutes
2.5	180	5	5.9	24	2200	0.12	300
2.5	390	6.3	5.9	25	2410	0.12	300
2.5	390	6.3	5.9	10	3900	0.12	500
2.5	680	8	6.9	20	3370	0.12	500
2.5	680	8	6.9	9	4500	0.12	500
2.5	820	8	11.9	9	5380	0.15	500
2.5	1500	8	11.9	10	5150	0.15	750
2.5	2700	10	12.6	12	5080	0.15	1350
2.5	3300	10	12.6	8	6650	0.15	1650
4	150	5	5.9	23	2240	0.12	300
4	330	6.3	5.9	21	2630	0.12	300
4	330	6.3	5.9	10	3900	0.12	500
4	560	8	6.9	22	3220	0.12	500
4	560	8	6.9	9	4500	0.12	672
4	560	8	11.9	9	5380	0.15	500
4	1200	8	11.9	12	4700	0.15	960
4	1500	8	11.9	12	4700	0.15	1200
6.3	100	5	5.9	25	2150	0.12	300
6.3	220	6.3	5.9	15	3110	0.12	300
6.3	220	6.3	5.9	10	3900	0.12	500
6.3	390	8	6.9	22	3220	0.12	491
6.3	390	8	6.9	9	4500	0.12	737
6.3	820	8	11.9	12	4700	0.15	1033
10	68	5	5.9	30	1970	0.12	300
10	120	6.3	5.9	27	2320	0.12	300
10	270	8	6.9	22	3220	0.12	500
10	560	10	12.6	10	5650	0.10	1120
16	39	5	5.9	35	1820	0.12	300
16	68	6.3	5.9	30	2200	0.12	300
16	120	8	6.9	27	2900	0.12	500
16	470	10	12.6	10	6100	0.10	1504