

FHChip type, Large Capacitance, Low ESR
Series**Hi-CAP**

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

FA → **FH**
Large Capacitance

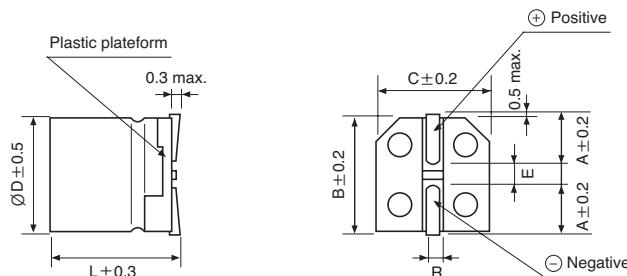
| Item | Characteristics | |
|---|--|---|
| Operating temperature range | -55 ~ +105°C | |
| Leakage current max.* | Less than or equal to the value of Table1 | |
| Capacitance tolerance | ±20% at 120Hz, 20°C | |
| Dissipation factor max. | Less than or equal to the value of Table1 | |
| ESR | Less than or equal to the value of Table1 | |
| Temperature characteristics (Impedance ratio at 100kHz) | Z-55°C / Z+20°C 0.75 ~ 1.25 | Z+105°C / Z+20°C 0.75 ~ 1.25 |
| Load life (after application of the rated voltage for 2000 hours at 105°C) | Leakage current Capacitance change ESR $\tan\delta$ | Less than specified value Within ±20% of initial value Less than 150% of specified value Less than 150% of specified value |
| Resistance to soldering heat (Refer to Page 35 for soldering recommendation) | Leakage current Capacitance change $\tan\delta$ | Less than specified value Within ±10% of initial value 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

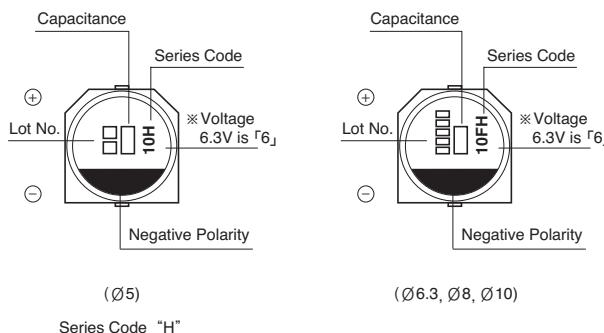
Unit : mm

< Dimensions >

**PART NUMBER SYSTEM (See Page 52)**

| Size | ØD | 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 |

< Marking >



CONDUCTIVE POLYMER ALUMINUM ELECTROLYTIC CAPACITORS

FH Series

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

| WV | μF | Size | | ESR(mΩ)max. 100kHz~300kHz | Ripple current (mA rms) at 105°C, 100kHz | Dissipation factor at 120Hz (max.) | Leakage Current (μA) |
|-----|---------------|----------------------------|-------|------------------------------|--|--|--------------------------------------|
| | | $\varnothing D(\text{mm})$ | L(mm) | | | | |
| 2.5 | 180 | 5 | 5.9 | 24 | 2200 | 0.12 | 300 |
| 2.5 | 330 | 6.3 | 5.9 | 15 | 3160 | 0.12 | 500 |
| 2.5 | 390 | 6.3 | 5.9 | 25 | 2410 | 0.12 | 300 |
| 2.5 | 680 | 8 | 6.9 | 20 | 3370 | 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 |
| 4 | 150 | 5 | 5.9 | 23 | 2240 | 0.12 | 300 |
| 4 | 330 | 6.3 | 5.9 | 21 | 2630 | 0.12 | 300 |
| 4 | 560 | 8 | 6.9 | 22 | 3220 | 0.12 | 500 |
| 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 | 330 | 6.3 | 5.9 | 17 | 3390 | 0.12 | 416 |
| 6.3 | 390 | 8 | 6.9 | 22 | 3220 | 0.12 | 491 |
| 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 |
| 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 |

● FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

| Frequency | 120Hz | 1kHz | 10kHz | 100~500kHz |
|-------------|-------|------|-------|------------|
| Coefficient | 0.05 | 0.3 | 0.7 | 1 |