
PERFORMANCE CHARACTERISTICS (continued)

1. General Characteristics

1.1 Marking

Capacitors shall be marked with YAGEO mark ; rated capacitance ; rated DC working voltage . and the date code of manufacture . The cathode terminal or lead will be identified with minus signs (－) on the side of the case.

1.2 Operating Temperature Range

These capacitors are designed to operate over a temperature range of -40℃ to +85℃, for rated voltage up to 100V , and -25℃ to +85℃ for rated voltage 160V to 450V .

1.2.1 At –40 (-25) ℃ , capacitance shall retain at least 70% of their initial value measured @20℃ , At 85℃ capacitance shall increase to no more than 120% of their initial value measured @25℃

1.2.2 At –40 (-25) ℃ , impedance shall increase to no more than the following table.

Rated Voltage (V)	6.3-16	25	35	50-63	80-100	160-400	400
Z(-25℃)/z(20℃)	3	3	3	2	2	4	8
Z(-40℃)/z(20℃)	12	10	8	6	5	---	---

1.3 Vent Test

During and after applicable test (sec. 1.3.1 or 1.3.2) there shall be no explosion , flash flame or expulsion articles of the core or container . In addition , the case shall not be expelled from the core . If the capacitor under the test is a multisection unit, this test shall apply to input section only. Both of the following tests shall be performed , but on separate test units.

1.3.1 Forward Bias Test

The capacitor under test shall be connected to a DC power supply that has sufficient voltage to supply a constant direct current of 500 milliamperes with the positive terminal of the capacitor connected to positive supply terminal and the negative capacitor terminal connected to the negative supply terminal . The constant current shall be maintained until (1) the capacitor vents , (2) 300 seconds have elapsed , or (3) the capacitor under test open circuits .

1.3.2 Reverse Bias Test

The capacitor under test shall be connected to a power supply with sufficient voltage to provide a constant direct current of 500 milliamoeres when the positive capacitor terminal is connected to the negative supply terminal and the negative capacitor terminal to positive supply terminal. The cons tant current shall be maintained until (1) the capacitors vents , (2) 300 seconds have elapsed , or (3) the capacitor under open circuits.

PERFORMANCE CHARACTERISTICS (continued)

2. Mechanical Characteristic

2.1 Lead Pull Test

Capacitor leads shall withstand a steady pull of 2.5kg applied axially to the leads for 5 seconds.

3. Electrical Characteristics

3.1 Standard Test Conditions

Unless otherwise specifiied all tests shall be performed at, or referred to, an ambient temperature of 20℃ and a relative humidity not greater than 50%

3.2 Capacitance and Dissipation Factor

Measurement shall be made on capacitance bridge capable of ± 2% accuracy on capacitance and dissipation factor measurements. Measurements shall be at 120Hz . The RMS value of the AC measuring voltage shall not exceed 1.0 volt .

3.3 Leakage Current

3.3.1 Pre-conditioning . Rated working voltage shall be applied to capacitors for a minimum period of 15 minutes duration at least 24 hours and not more than 48 hours before test.

3.3.2 Test . Measurements shall be made afte a 2 minutes charge at rated working voltage at 20℃ with an application of a steady source of power. Such as a regular power supply, with a 1000 ohm resistance to limit the charging current , connected in series with each capacitor under test .

3.4 Surge Voltage

The surge DC rating is the maximum voltage to which the capacitor should be subjected under any conditions. This includes transients and peak ripple at the highest line voltage .

3.4.1 Capacitors , connected in series with 1000 ohm resistors , shall withstand the surge test voltage applied at the rated of 1/2 minute on, 5 1/2 minutes off, for 1000 successive test cycles at 20℃. (see the following table)

Rated Voltage (v)	6.3	10	16	25	35	50	63	80	100	160	180	200	250	350	400	450
Surge Voltage (v)	8	13	20	32	44	63	79	100	125	200	225	250	300	400	450	500

PERFORMANCE CHARACTERISTICS (continued)

3.4.2 After the test, the capacitors shall must meet the requirement specified in the following table .

Test	Value after test
Leakage Current	Not more than the initial value specified
Capacitance Change	More than +-20% of the value before test
Dissipation Factor	Not more than 200% of the initial values specified

3.5 Humidity Test

Capacitors shall be subjected to a temperature of 40±2℃ at a relative humidity of 90 to 95% for a period of 500 hours , then air dried for 1 hour. Follow this condition , capacitors shall meet the specified requirements for dissipation factor and DC leakage current , and the capacitance value shall not change than 10% .

4. Life and reliability Test

4.1 Life Test

4.1.1 Rated voltage with full rated ripple current shall be applied to the capacitors for period if 2000 hours while units are maintained at an ambient temperature of +85℃

4.1.2 Capacitors shall then be removed from the test chamber and return to room temperature

4.1.3 The capacitance shall then be measured in accordance with section 3.2 capacitance shall not decrease to less than 80% of the capacitance at 20℃ , measured prior to the test , nor shall it increase to more than 120% of the original 20℃ value.

4.1.4 The dissipation factor shall be measured in accordance with section 3.2 . The dissipation factor shall not exceed 200% of the initial requirement.

4.1.5 At the conclusion of the test, the leakage current shall not exceed the initial DC leakage current requirement . Measurement shall be made in accordance with section 3.3

4.2 Shelf Test

After storage for 1000 hours at 85℃ with no voltage applied, the capacitance and dissipation factor shall meet the initial requirements of section 4.1.3 and 4.1.4 ; the DC leakage current measured in accordance with section 3.3 shall not 150% of the initial requirement.

GUIDE TO APPLICATION

1. Maximum Ripple Current

1.1 Maximum rms ripple current at 85℃ 120Hz is given in the table.

1.2 When capacitors are operated at temperature other than 85℃ , the permissible 120Hz rms ripple current limit can be calculated using the multiplication factors showen below :

Ambient temp. (ºC)	45	60	70	85
factors	1.48	1.42	1.30	1.00

1.3 When capacitors are operated at frequency other than 120Hz , the permissible rms ripple current limit can be calculated using the multiplication factors showen below :

Frequency (Hz)	50	60	120	1k	10k
6.3-100 (V)	0.88	0.90	1.0	1.15	1.16
160-250 (V)	0.75	0.78	1.0	1.16	1.23
350-450 (V)	0.74	0.76	1.0	1.10	1.15

2. Ripple Voltage

2.1 Ripple voltage must not exceed the sum of the DC voltage plus the AC ripple voltage must not exceed the rated DC voltage . The DC voltage plus the peak AC voltage must not cause a voltage reversal more than 1.5 volts.

3. Insulating

General types of aluminum electrolytic capacitors are covered with a vinyl sleeve or the like. And this sleeve is used for marking. When the internal element or the container is needed to be insulated , capacitors specially designed for insulation requirement are recommended to be used .

4. Soldering

2.2 When soldering a printed circuit board with various components, too high soldering temperature or too long dipping times may cause secondary shrinking of the sleeve which unnecessarily exposes the container. Soldering is allowed to performed at less than 260℃ for less than 10 seconds .

2.3 Soldering may melt or break the sleeve, if sleeve is contacted with circuit patterns. To avoid this trouble , the capacitors are recommended to be slightly apart from the circuit boards.

GUIDE TO APPLICATION (continued)

5. Solderability

   The solderability requirements shall be under soldering temperature at 235±2℃ , and soldering time 2±0.1 seconds .

6. Vent

   The capacitors are provided with a pressure resistive controlled safety vent formed on the bottom of the container . The vent is designed to rupture in the event that higher internal pressure developed by circuit malfunction or capacitor mis-use.

7. High Altitude

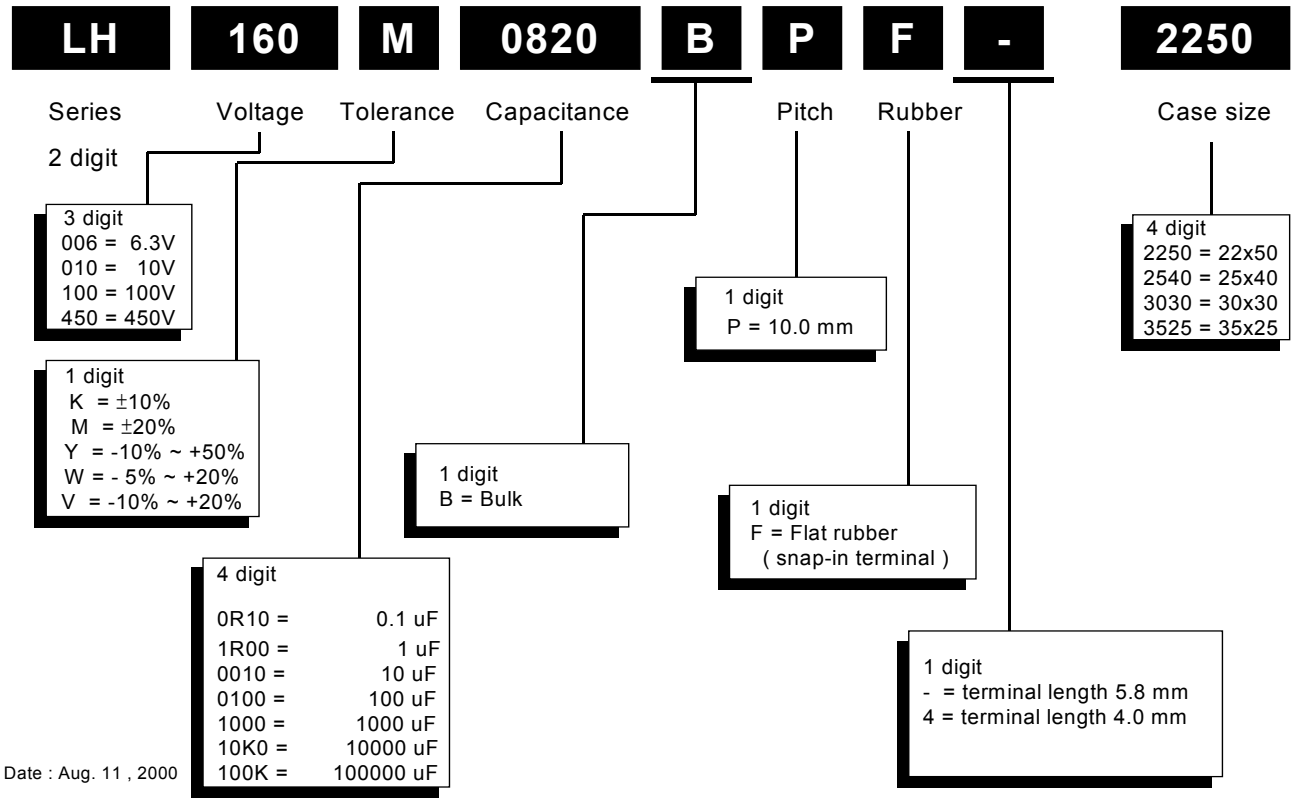
   These capacitors are capable of withstanding in transit conditions where storage temperature may range from -40℃ to +85℃ and altitude may reach 200,000 feet.

8. Cleaning Agents

   Halogenated hydrocarbon cleaning solvents are not recommended for use in cleaning capacitors supplied with exposed end seals . Where cleaning with a halogenated solvent is desired , capacitors should be ordered with a epoxy-coated end seal.

YAGEO Snap-in Type E/C Ordering Code

1. For worldwide customers use only
2. For standard specification use only



Date : Aug. 11 , 2000

Table 1-1 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH006M15K0BPF-2225	15000	6.3	22X25	1890	0.60	2440
LH006M18K0BPF-2230	18000	6.3	22X30	2268	0.60	2600
LH006M18K0BPF-2525	18000	6.3	25X25	2268	0.60	2620
LH006M22K0BPF-2230	22000	6.3	22X30	2772	0.60	3060
LH006M22K0BPF-2525	22000	6.3	25X25	2772	0.60	3070
LH006M27K0BPF-2235	27000	6.3	22X35	3000	0.60	3490
LH006M27K0BPF-2530	27000	6.3	25X30	3000	0.60	3520
LH006M27K0BPF-3025	27000	6.3	30X25	3000	0.60	3570
LH006M33K0BPF-2240	33000	6.3	22X40	3000	0.60	3970
LH006M33K0BPF-2535	33000	6.3	25X35	3000	0.60	4020
LH006M33K0BPF-3030	33000	6.3	30X30	3000	0.60	4050
LH006M33K0BPF-3525	33000	6.3	35X25	3000	0.60	4100
LH006M39K0BPF-2250	39000	6.3	22X50	3000	0.60	4560
LH006M39K0BPF-2540	39000	6.3	25X40	3000	0.60	4560
LH006M39K0BPF-3030	39000	6.3	30X30	3000	0.60	4460
LH006M39K0BPF-3525	39000	6.3	35X25	3000	0.60	4510
LH006M47K0BPF-2545	47000	6.3	25X45	3000	0.60	5090
LH006M47K0BPF-3035	47000	6.3	30X35	3000	0.60	5060
LH006M47K0BPF-3530	47000	6.3	35X30	3000	0.60	5030
LH006M56K0BPF-2550	56000	6.3	25X50	3000	0.60	5710
LH006M56K0BPF-3040	56000	6.3	30X40	3000	0.60	5700
LH006M56K0BPF-3530	56000	6.3	35X30	3000	0.60	5750
LH006M68K0BPF-3045	68000	6.3	30X45	3000	0.60	6480
LH006M68K0BPF-3535	68000	6.3	35X35	3000	0.60	6420
LH006M82K0BPF-3050	82000	6.3	30X50	3000	0.60	7320
LH006M82K0BPF-3540	82000	6.3	35X40	3000	0.60	7290
LH006M100KBPF-3545	100000	6.3	35X45	3000	0.60	8310
LH006M120KBPF-3550	120000	6.3	35X50	3000	0.60	8600
LH010M12K0BPF-2225	12000	10	22X25	2400	0.55	2400
LH010M15K0BPF-2230	15000	10	22X30	3000	0.55	2750
LH010M15K0BPF-2525	15000	10	25X25	3000	0.55	2750
LH010M18K0BPF-2235	18000	10	22X35	3000	0.55	3150
LH010M18K0BPF-2525	18000	10	25X25	3000	0.55	3050
LH010M22K0BPF-2240	22000	10	22X40	3000	0.55	3550
LH010M22K0BPF-2530	22000	10	25X30	3000	0.55	3500
LH010M22K0BPF-3025	22000	10	30X25	3000	0.55	3550
LH010M27K0BPF-2245	27000	10	22X45	3000	0.55	4050
LH010M27K0BPF-2535	27000	10	25X35	3000	0.55	4000
LH010M27K0BPF-3030	27000	10	30X30	3000	0.55	4050
LH010M33K0BPF-2250	33000	10	22X50	3000	0.55	4600
LH010M33K0BPF-2540	33000	10	25X40	3000	0.55	4550
LH010M33K0BPF-3030	33000	10	30X30	3000	0.55	4500

Table 1-2 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH010M33K0BPF-3525	33000	10	35X25	3000	0.55	4500
LH010M39K0BPF-2545	39000	10	25X45	3000	0.55	5100
LH010M39K0BPF-3035	39000	10	30X35	3000	0.55	5050
LH010M39K0BPF-3530	39000	10	35X30	3000	0.55	5050
LH010M47K0BPF-2550	47000	10	25X50	3000	0.55	5750
LH010M47K0BPF-3040	47000	10	30X40	3000	0.55	5700
LH010M47K0BPF-3530	47000	10	35X30	3000	0.55	5650
LH010M56K0BPF-3045	56000	10	30X45	3000	0.55	6450
LH010M56K0BPF-3535	56000	10	35X35	3000	0.55	6400
LH010M68K0BPF-3050	68000	10	30X50	3000	0.55	7050
LH010M68K0BPF-3540	68000	10	35X40	3000	0.55	7100
LH010M82K0BPF-3550	82000	10	35X50	3000	0.55	7500
LH016M8200BPF-2225	8200	16	22X25	2624	0.55	2600
LH016M10K0BPF-2230	10000	16	22X30	3000	0.55	2700
LH016M10K0BPF-2525	10000	16	25X25	3000	0.55	2750
LH016M12K0BPF-2230	12000	16	22X30	3000	0.55	2900
LH016M12K0BPF-2525	12000	16	25X25	3000	0.55	2950
LH016M15K0BPF-2235	15000	16	22X35	3000	0.55	3300
LH016M15K0BPF-2530	15000	16	25X30	3000	0.55	3450
LH016M15K0BPF-3025	15000	16	30X25	3000	0.55	3500
LH016M18K0BPF-2240	18000	16	22X40	3000	0.55	3700
LH016M18K0BPF-2535	18000	16	25X35	3000	0.55	3750
LH016M18K0BPF-3030	18000	16	30X30	3000	0.55	3800
LH016M22K0BPF-2250	22000	16	22X50	3000	0.55	4350
LH016M22K0BPF-2540	22000	16	25X40	3000	0.55	4300
LH016M22K0BPF-3030	22000	16	30X30	3000	0.55	4250
LH016M22K0BPF-3525	22000	16	35X25	3000	0.55	4200
LH016M27K0BPF-2545	27000	16	25X45	3000	0.55	4700
LH016M27K0BPF-3035	27000	16	30X35	3000	0.55	4650
LH016M27K0BPF-3530	27000	16	35X30	3000	0.55	4650
LH016M33K0BPF-3040	33000	16	30X40	3000	0.55	5350
LH016M33K0BPF-3530	33000	16	35X30	3000	0.55	5400
LH016M39K0BPF-3045	39000	16	30X45	3000	0.55	6000
LH016M39K0BPF-3535	39000	16	35X35	3000	0.55	5950
LH016M47K0BPF-3050	47000	16	30X50	3000	0.55	6800
LH016M47K0BPF-3540	47000	16	35X40	3000	0.55	6750
LH016M56K0BPF-3545	56000	16	35X45	3000	0.55	7600
LH016M68K0BPF-3550	68000	16	35X50	3000	0.55	8000
LH025M5600BPF-2225	5600	25	22X25	2800	0.45	2200
LH025M6800BPF-2230	6800	25	22X30	3000	0.45	2400
LH025M6800BPF-2525	6800	25	25X25	3000	0.45	2450
LH025M8200BPF-2235	8200	25	22X35	3000	0.45	2700

Table 1-3 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH025M8200BPF-2525	8200	25	25X25	3000	0.45	2750
LH025M10K0BPF-2240	10000	25	22X40	3000	0.45	3100
LH025M10K0BPF-2530	10000	25	25X30	3000	0.45	3150
LH025M10K0BPF-3025	10000	25	30X25	3000	0.45	3200
LH025M12K0BPF-2245	12000	25	22X45	3000	0.45	3500
LH025M12K0BPF-2535	12000	25	25X35	3000	0.45	3450
LH025M12K0BPF-3030	12000	25	30X30	3000	0.45	3500
LH025M12K0BPF-3525	12000	25	35X25	3000	0.45	3550
LH025M15K0BPF-2250	15000	25	22X50	3000	0.45	4000
LH025M15K0BPF-2540	15000	25	25X40	3000	0.45	3950
LH025M15K0BPF-3035	15000	25	30X35	3000	0.45	4000
LH025M15K0BPF-3530	15000	25	35X30	3000	0.45	4050
LH025M18K0BPF-2545	18000	25	25X45	3000	0.45	4450
LH025M18K0BPF-3035	18000	25	30X35	3000	0.45	4450
LH025M18K0BPF-3530	18000	25	35X30	3000	0.45	4600
LH025M22K0BPF-3040	22000	25	30X40	3000	0.45	5200
LH025M22K0BPF-3535	22000	25	35X35	3000	0.45	5150
LH025M27K0BPF-3045	27000	25	30X45	3000	0.45	5950
LH025M27K0BPF-3540	27000	25	35X40	3000	0.45	5900
LH025M33K0BPF-3050	33000	25	30X50	3000	0.45	6700
LH025M33K0BPF-3545	33000	25	35X45	3000	0.45	6750
LH025M39K0BPF-3550	39000	25	35X50	3000	0.45	7550
LH035M3900BPF-2225	3900	35	22X25	2730	0.35	2200
LH035M4700BPF-2230	4700	35	22X30	3000	0.35	2400
LH035M4700BPF-2525	4700	35	25X25	3000	0.35	2400
LH035M5600BPF-2235	5600	35	22X35	3000	0.35	2750
LH035M5600BPF-2525	5600	35	25X25	3000	0.35	2750
LH035M6800BPF-2240	6800	35	22X40	3000	0.35	2850
LH035M6800BPF-2530	6800	35	25X30	3000	0.35	2850
LH035M6800BPF-3025	6800	35	30X25	3000	0.35	2900
LH035M8200BPF-2245	8200	35	22X45	3000	0.35	3450
LH035M8200BPF-2535	8200	35	25X35	3000	0.35	3100
LH035M8200BPF-3030	8200	35	30X30	3000	0.35	3150
LH035M10K0BPF-2250	10000	35	22X50	3000	0.35	3550
LH035M10K0BPF-2540	10000	35	25X40	3000	0.35	3500
LH035M10K0BPF-3030	10000	35	30X30	3000	0.35	3450
LH035M10K0BPF-3525	10000	35	35X25	3000	0.35	3400
LH035M12K0BPF-2545	12000	35	25X45	3000	0.35	3950
LH035M12K0BPF-3035	12000	35	30X35	3000	0.35	4000
LH035M12K0BPF-3530	12000	35	35X30	3000	0.35	4050
LH035M15K0BPF-2550	15000	35	25X50	3000	0.35	4950
LH035M15K0BPF-3040	15000	35	30X40	3000	0.35	4950

Table 1-4 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH035M15K0BPF-3535	15000	35	35X35	3000	0.35	5000
LH035M18K0BPF-3045	18000	35	30X45	3000	0.35	5500
LH035M18K0BPF-3540	18000	35	35X40	3000	0.35	5550
LH035M22K0BPF-3050	22000	35	30X50	3000	0.35	6000
LH035M22K0BPF-3545	22000	35	35X45	3000	0.35	6050
LH035M27K0BPF-3550	27000	35	35X50	3000	0.35	6900
LH050M2200BPF-2225	2200	50	22X25	2200	0.30	1900
LH050M2700BPF-2230	2700	50	22X30	2700	0.30	2100
LH050M2700BPF-2525	2700	50	25X25	2700	0.30	2200
LH050M3300BPF-2230	3300	50	22X30	3000	0.30	2350
LH050M3300BPF-2525	3300	50	25X25	3000	0.30	2350
LH050M3900BPF-2235	3900	50	22X35	3000	0.30	2650
LH050M3900BPF-2530	3900	50	25X30	3000	0.30	2650
LH050M3900BPF-3025	3900	50	30X25	3000	0.30	2650
LH050M4700BPF-2240	4700	50	22X40	3000	0.30	3000
LH050M4700BPF-2535	4700	50	25X35	3000	0.30	3000
LH050M4700BPF-3025	4700	50	30X25	3000	0.30	2950
LH050M5600BPF-2245	5600	50	22X45	3000	0.30	3350
LH050M5600BPF-2540	5600	50	25X40	3000	0.30	3350
LH050M5600BPF-3030	5600	50	30X30	3000	0.30	3350
LH050M5600BPF-3525	5600	50	35X25	3000	0.30	3400
LH050M6800BPF-2240	6800	50	22X40	3000	0.30	3260
LH050M6800BPF-2540	6800	50	25X40	3000	0.30	3800
LH050M6800BPF-3035	6800	50	30X35	3000	0.30	3850
LH050M6800BPF-3530	6800	50	35X30	3000	0.30	3850
LH050M8200BPF-2550	8200	50	25X50	3000	0.30	4350
LH050M8200BPF-3040	8200	50	30X40	3000	0.30	4350
LH050M8200BPF-3530	8200	50	35X30	3000	0.30	4400
LH050M10K0BPF-3045	10000	50	30X45	3000	0.30	5000
LH050M10K0BPF-3535	10000	50	35X35	3000	0.30	4950
LH050M12K0BPF-3050	12000	50	30X50	3000	0.30	5600
LH050M12K0BPF-3540	12000	50	35X40	3000	0.30	5550
LH050M15K0BPF-3545	15000	50	35X45	3000	0.30	6450
LH050M18K0BPF-3550	18000	50	35X50	3000	0.30	6700
LH063M1800BPF-2225	1800	63	22X25	2268	0.25	1850
LH063M2200BPF-2230	2200	63	22X30	2772	0.25	2300
LH063M2200BPF-2525	2200	63	25X25	2772	0.25	2300
LH063M2700BPF-2235	2700	63	22X35	3000	0.25	2450
LH063M2700BPF-2530	2700	63	25X30	3000	0.25	2450
LH063M2700BPF-3025	2700	63	30X25	3000	0.25	2500
LH063M3300BPF-2240	3300	63	22X40	3000	0.25	2600
LH063M3300BPF-2530	3300	63	25X30	3000	0.25	2650

Table 1-5 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH063M3300BPF-3025	3300	63	30X25	3000	0.25	2700
LH063M3900BPF-2245	3900	63	22X45	3000	0.25	2950
LH063M3900BPF-2535	3900	63	25X35	3000	0.25	2950
LH063M3900BPF-3030	3900	63	30X30	3000	0.25	3000
LH063M4700BPF-2250	4700	63	22X50	3000	0.25	3400
LH063M4700BPF-2540	4700	63	25X40	3000	0.25	3350
LH063M4700BPF-3030	4700	63	30X30	3000	0.25	3350
LH063M4700BPF-3525	4700	63	35X25	3000	0.25	3400
LH063M5600BPF-2545	5600	63	25X45	3000	0.25	3700
LH063M5600BPF-3035	5600	63	30X35	3000	0.25	3750
LH063M5600BPF-3530	5600	63	35X30	3000	0.25	3750
LH063M6800BPF-3040	6800	63	30X40	3000	0.25	4250
LH063M6800BPF-3530	6800	63	35X30	3000	0.25	4200
LH063M8200BPF-3045	8200	63	30X45	3000	0.25	4800
LH063M8200BPF-3535	8200	63	35X35	3000	0.25	4800
LH063M10K0BPF-3050	10000	63	30X50	3000	0.25	5500
LH063M10K0BPF-3540	10000	63	35X40	3000	0.25	5450
LH063M12K0BPF-3545	12000	63	35X45	3000	0.25	6200
LH080M1200BPF-2225	1200	80	22X25	1920	0.25	1650
LH080M1500BPF-2230	1500	80	22X30	2400	0.25	1900
LH080M1500BPF-2525	1500	80	25X25	2400	0.25	1900
LH080M1800BPF-2235	1800	80	22X35	2880	0.25	2200
LH080M1800BPF-2530	1800	80	25X30	2880	0.25	2200
LH080M1800BPF-3025	1800	80	30X25	2880	0.25	2200
LH080M2200BPF-2240	2200	80	22X40	3000	0.25	2450
LH080M2200BPF-2530	2200	80	25X30	3000	0.25	2450
LH080M2200BPF-3025	2200	80	30X25	3000	0.25	2500
LH080M2700BPF-2245	2700	80	22X45	3000	0.25	2800
LH080M2700BPF-2535	2700	80	25X35	3000	0.25	2800
LH080M2700BPF-3030	2700	80	30X30	3000	0.25	2850
LH080M2700BPF-3525	2700	80	35X25	3000	0.25	2850
LH080M3300BPF-2250	3300	80	22X50	3000	0.25	3150
LH080M3300BPF-2540	3300	80	25X40	3000	0.25	3200
LH080M3300BPF-3030	3300	80	30X30	3000	0.25	3200
LH080M3300BPF-3525	3300	80	35X25	3000	0.25	3200
LH080M3900BPF-2545	3900	80	25X45	3000	0.25	3600
LH080M3900BPF-3035	3900	80	30X35	3000	0.25	3600
LH080M3900BPF-3530	3900	80	35X30	3000	0.25	3600
LH080M4700BPF-2550	4700	80	25X50	3000	0.25	4050
LH080M4700BPF-3040	4700	80	30X40	3000	0.25	4050
LH080M4700BPF-3535	4700	80	35X35	3000	0.25	4100
LH080M5600BPF-3045	5600	80	30X45	3000	0.25	4550

Table 1-6 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH080M5600BPF-3535	5600	80	35X35	3000	0.25	4500
LH080M6800BPF-3050	6800	80	30X50	3000	0.25	5150
LH080M6800BPF-3540	6800	80	35X40	3000	0.25	5150
LH080M8200BPF-3545	8200	80	35X45	3000	0.25	5850
LH080M10K0BPF-3550	10000	80	35X50	3000	0.25	6600
LH100M0820BPF-2225	820	100	22X25	1640	0.25	1850
LH100M1000BPF-2230	1000	100	22X30	2000	0.25	2100
LH100M1000BPF-2525	1000	100	25X25	2000	0.25	2100
LH100M1200BPF-2235	1200	100	22X35	2400	0.25	2400
LH100M1200BPF-2530	1200	100	25X30	2400	0.25	2450
LH100M1500BPF-2240	1500	100	22X40	3000	0.25	2700
LH100M1500BPF-2530	1500	100	25X30	3000	0.25	2750
LH100M1500BPF-3025	1500	100	30X25	3000	0.25	2750
LH100M1800BPF-2245	1800	100	22X45	3000	0.25	3100
LH100M1800BPF-2535	1800	100	25X35	3000	0.25	3150
LH100M1800BPF-3030	1800	100	30X30	3000	0.25	3150
LH100M1800BPF-3525	1800	100	35X25	3000	0.25	3150
LH100M2200BPF-2250	2200	100	22X50	3000	0.25	3500
LH100M2200BPF-2540	2200	100	25X40	3000	0.25	3550
LH100M2200BPF-3030	2200	100	30X30	3000	0.25	3550
LH100M2200BPF-3525	2200	100	35X25	3000	0.25	3600
LH100M2700BPF-2545	2700	100	25X45	3000	0.25	4100
LH100M2700BPF-3035	2700	100	30X35	3000	0.25	4050
LH100M2700BPF-3530	2700	100	35X30	3000	0.25	4050
LH100M3300BPF-2550	3300	100	25X50	3000	0.25	4500
LH100M3300BPF-3040	3300	100	30X40	3000	0.25	4550
LH100M3300BPF-3530	3300	100	35X30	3000	0.25	4500
LH100M3900BPF-3045	3900	100	30X45	3000	0.25	5150
LH100M3900BPF-3535	3900	100	35X35	3000	0.25	5100
LH100M4700BPF-3540	4700	100	35X40	3000	0.25	5750
LH100M5600BPF-3550	5600	100	35X50	3000	0.25	6200
LH160M0270BPF-2225	270	160	22X25	864	0.15	1150
LH160M0330BPF-2225	330	160	22X25	1056	0.15	1400
LH160M0330BPF-2520	330	160	25X20	1056	0.15	1350
LH160M0390BPF-2230	390	160	22X30	1248	0.15	1550
LH160M0390BPF-2525	390	160	25X25	1248	0.15	1550
LH160M0390BPF-3025	390	160	30X25	1248	0.15	1500
LH160M0470BPF-2230	470	160	22X30	1504	0.15	1750
LH160M0470BPF-2525	470	160	25X25	1504	0.15	1750
LH160M0470BPF-3025	470	160	30X25	1504	0.15	1700
LH160M0560BPF-2230	560	160	22X30	1792	0.15	1950
LH160M0560BPF-2530	560	160	25X30	1792	0.15	1950

Table 1-7 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH160M0560BPF-3025	560	160	30X25	1792	0.15	1900
LH160M0680BPF-2240	680	160	22X40	2176	0.15	2200
LH160M0680BPF-2530	680	160	25X30	2176	0.15	2200
LH160M0680BPF-3025	680	160	30X25	2176	0.15	2150
LH160M0820BPF-2245	820	160	22X45	2624	0.15	2500
LH160M0820BPF-2535	820	160	25X35	2624	0.15	2550
LH160M0820BPF-3030	820	160	30X30	2624	0.15	2500
LH160M0820BPF-3525	820	160	35X25	2624	0.15	2500
LH160M1000BPF-2250	1000	160	22X50	3000	0.15	2850
LH160M1000BPF-2540	1000	160	25X40	3000	0.15	2800
LH160M1000BPF-3035	1000	160	30X35	3000	0.15	2800
LH160M1000BPF-3525	1000	160	35X25	3000	0.15	2800
LH160M1200BPF-2545	1200	160	25X45	3000	0.15	3150
LH160M1200BPF-3035	1200	160	30X35	3000	0.15	3151
LH160M1200BPF-3530	1200	160	35X30	3000	0.15	3200
LH160M1500BPF-3045	1500	160	30X45	3000	0.15	3750
LH160M1500BPF-3535	1500	160	35X35	3000	0.15	3700
LH160M1800BPF-3050	1800	160	30X50	3000	0.15	4200
LH160M1800BPF-3540	1800	160	35X40	3000	0.15	4200
LH160M2200BPF-3545	2200	160	35X45	3000	0.15	4800
LH180M0180BPF-2220	180	180	22X20	648	0.15	1000
LH180M0220BPF-2225	220	180	22X25	792	0.15	1100
LH180M0270BPF-2225	270	180	22X25	972	0.15	1250
LH180M0270BPF-2520	270	180	25X20	972	0.15	1250
LH180M0330BPF-2230	330	180	22X30	1188	0.15	1400
LH180M0330BPF-2525	330	180	25X25	1188	0.15	1400
LH180M0390BPF-2230	390	180	22X30	1404	0.15	1600
LH180M0390BPF-2525	390	180	25X25	1404	0.15	1600
LH180M0470BPF-2235	470	180	22X35	1692	0.15	1800
LH180M0470BPF-2530	470	180	25X30	1692	0.15	1800
LH180M0470BPF-3025	470	180	30X25	1692	0.15	1800
LH180M0560BPF-2240	560	180	22X40	2016	0.15	2000
LH180M0560BPF-2530	560	180	25X30	2016	0.15	1950
LH180M0560BPF-3025	560	180	30X25	2016	0.15	2000
LH180M0680BPF-2245	680	180	22X45	2448	0.15	2250
LH180M0680BPF-2535	680	180	25X35	2448	0.15	2200
LH180M0680BPF-3030	680	180	30X30	2448	0.15	2200
LH180M0680BPF-3525	680	180	35X25	2448	0.15	2200
LH180M0820BPF-2250	820	180	22X50	2952	0.15	2550
LH180M0820BPF-2540	820	180	25X40	2952	0.15	2550
LH180M0820BPF-3035	820	180	30X35	2952	0.15	2600
LH180M0820BPF-3525	820	180	35X25	2952	0.15	2600

Table 1-8 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH180M1000BPF-2545	1000	180	25X45	3000	0.15	2850
LH180M1000BPF-3035	1000	180	30X35	3000	0.15	2850
LH180M1000BPF-3530	1000	180	35X30	3000	0.15	2900
LH180M1200BPF-3040	1200	180	30X40	3000	0.15	3250
LH180M1200BPF-3535	1200	180	35X35	3000	0.15	3300
LH180M1500BPF-3045	1500	180	30X45	3000	0.15	3850
LH180M1500BPF-3540	1500	180	35X40	3000	0.15	3800
LH180M1800BPF-3545	1800	180	35X45	3000	0.15	4300
LH180M2200BPF-3550	2200	180	35X50	3000	0.15	4900
LH200M0180BPF-2225	180	200	22X25	720	0.15	950
LH200M0220BPF-2225	220	200	22X25	880	0.15	1100
LH200M0270BPF-2230	270	200	22X30	1080	0.15	1250
LH200M0270BPF-2225	270	200	22X25	1080	0.15	1250
LH200M0330BPF-2230	330	200	22X30	1320	0.15	1450
LH200M0330BPF-2525	330	200	25X25	1320	0.15	1450
LH200M0390BPF-2230	390	200	22X30	1560	0.15	1600
LH200M0390BPF-2525	390	200	25X25	1560	0.15	1550
LH200M0470BPF-2235	470	200	22X35	1880	0.15	1800
LH200M0470BPF-2530	470	200	25X30	1880	0.15	1800
LH200M0470BPF-3025	470	200	30X25	1880	0.15	1800
LH200M0560BPF-2240	560	200	22X40	2240	0.15	2000
LH200M0560BPF-2535	560	200	25X35	2240	0.15	2000
LH200M0560BPF-3025	560	200	30X25	2240	0.15	2000
LH200M0680BPF-2245	680	200	22X45	2720	0.15	2350
LH200M0680BPF-2540	680	200	25X40	2720	0.15	2300
LH200M0680BPF-3030	680	200	30X30	2720	0.15	2300
LH200M0680BPF-3525	680	200	35X25	2720	0.15	2300
LH200M0820BPF-2545	820	200	25X45	3000	0.15	2600
LH200M0820BPF-3035	820	200	30X35	3000	0.15	2600
LH200M0820BPF-3530	820	200	35X30	3000	0.15	2600
LH200M1000BPF-2550	1000	200	25X50	3000	0.15	3000
LH200M1000BPF-3040	1000	200	30X40	3000	0.15	3050
LH200M1000BPF-3530	1000	200	35X30	3000	0.15	3000
LH200M1200BPF-3045	1200	200	30X45	3000	0.15	3300
LH200M1200BPF-3535	1200	200	35X35	3000	0.15	3300
LH200M1500BPF-3050	1500	200	30X50	3000	0.15	3800
LH200M1500BPF-3540	1500	200	35X40	3000	0.15	3800
LH200M1800BPF-3545	1800	200	35X45	3000	0.15	4350
LH200M2200BPF-3550	2200	200	35X50	3000	0.15	4950
LH250M0120BPF-2220	120	250	22X20	600	0.15	780
LH250M0150BPF-2225	150	250	22X25	750	0.15	900
LH250M0180BPF-2225	180	250	22X25	900	0.15	1050

Table 1-9 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH250M0180BPF-2520	180	250	25X20	900	0.15	1000
LH250M0220BPF-2230	220	250	22X30	1100	0.15	1150
LH250M0220BPF-2525	220	250	25X25	1100	0.15	1150
LH250M0270BPF-2230	270	250	22X30	1350	0.15	1300
LH250M0270BPF-2525	270	250	25X25	1350	0.15	1300
LH250M0330BPF-2235	330	250	22X35	1650	0.15	1500
LH250M0330BPF-2530	330	250	25X30	1650	0.15	1500
LH250M0330BPF-3025	330	250	30X25	1650	0.15	1500
LH250M0390BPF-2240	390	250	22X40	1950	0.15	1660
LH250M0390BPF-2535	390	250	25X35	1950	0.15	1650
LH250M0390BPF-3025	390	250	30X25	1950	0.15	1650
LH250M0470BPF-2245	470	250	22X45	2350	0.15	1850
LH250M0470BPF-2535	470	250	25X35	2350	0.15	1850
LH250M0470BPF-3030	470	250	30X30	2350	0.15	1900
LH250M0470BPF-3525	470	250	35X25	2350	0.15	1900
LH250M0560BPF-2250	560	250	22X50	2800	0.15	2090
LH250M0560BPF-2540	560	250	25X40	2800	0.15	2100
LH250M0560BPF-3035	560	250	30X35	2800	0.15	1990
LH250M0560BPF-3525	560	250	35X25	2800	0.15	2100
LH250M0680BPF-2550	680	250	25X50	3000	0.15	2430
LH250M0680BPF-3040	680	250	30X40	3000	0.15	2460
LH250M0680BPF-3530	680	250	35X30	3000	0.15	2490
LH250M0820BPF-3045	820	250	30X45	3000	0.15	2750
LH250M0820BPF-3535	820	250	35X35	3000	0.15	2770
LH250M1000BPF-3045	1000	250	30X45	3000	0.15	3300
LH250M1000BPF-3535	1000	250	35X35	3000	0.15	3300
LH250M1200BPF-3540	1200	250	35X40	3000	0.15	3550
LH250M1500BPF-3545	1500	250	35X45	3000	0.15	4050
LH350M0068BPF-2220	68	350	22X20	476	0.15	550
LH350M0082BPF-2225	82	350	22X25	574	0.15	650
LH350M0082BPF-2520	82	350	25X20	574	0.15	650
LH350M0100BPF-2230	100	350	22X30	700	0.15	900
LH350M0100BPF-2520	100	350	25X20	700	0.15	900
LH350M0120BPF-2230	120	350	22X30	840	0.15	1000
LH350M0120BPF-2525	120	350	25X25	840	0.15	1000
LH350M0150BPF-2235	150	350	22X35	1050	0.15	1150
LH350M0150BPF-2530	150	350	25X30	1050	0.15	1150
LH350M0150BPF-3025	150	350	30X25	1050	0.15	1150
LH350M0180BPF-2240	180	350	22X40	1260	0.15	1300
LH350M0180BPF-2530	180	350	25X30	1260	0.15	1250
LH350M0180BPF-3025	180	350	30X25	1260	0.15	1250
LH350M0220BPF-2245	220	350	22X45	1540	0.15	1450

Table 1-10 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH350M0220BPF-2535	220	350	25X35	1540	0.15	1450
LH350M0220BPF-3030	220	350	30X30	1540	0.15	1450
LH350M0220BPF-3525	220	350	35X25	1540	0.15	1450
LH350M0270BPF-2540	270	350	25X40	1890	0.15	1650
LH350M0270BPF-3035	270	350	30X35	1890	0.15	1650
LH350M0270BPF-3525	270	350	35X25	1890	0.15	1650
LH350M0330BPF-2550	330	350	25X50	2310	0.15	1800
LH350M0330BPF-3040	330	350	30X40	2310	0.15	1800
LH350M0330BPF-3530	330	350	35X30	2310	0.15	1800
LH350M0390BPF-3040	390	350	30X40	2730	0.15	2000
LH350M0390BPF-3530	390	350	35X30	2730	0.15	2000
LH350M0470BPF-3045	470	350	30X45	3000	0.15	2250
LH350M0470BPF-3535	470	350	35X35	3000	0.15	2250
LH350M0560BPF-3540	560	350	35X40	3000	0.15	2500
LH350M0680BPF-3545	680	350	35X45	3000	0.15	2900
LH400M0056BPF-2220	56	400	22X20	448	0.15	550
LH400M0068BPF-2225	68	400	22X25	544	0.15	600
LH400M0068BPF-2520	68	400	25X20	544	0.15	600
LH400M0082BPF-2225	82	400	22X25	656	0.15	800
LH400M0082BPF-2520	82	400	25X20	656	0.15	800
LH400M0100BPF-2230	100	400	22X30	800	0.15	900
LH400M0100BPF-2525	100	400	25X25	800	0.15	900
LH400M0120BPF-2235	120	400	22X35	960	0.15	1050
LH400M0120BPF-2525	120	400	25X25	960	0.15	1050
LH400M0150BPF-2235	150	400	22X35	1200	0.15	1150
LH400M0150BPF-2530	150	400	25X30	1200	0.15	1150
LH400M0150BPF-3025	150	400	30X25	1200	0.15	1150
LH400M0180BPF-2245	180	400	22X45	1440	0.15	1300
LH400M0180BPF-2535	180	400	25X35	1440	0.15	1300
LH400M0180BPF-3030	180	400	30X30	1440	0.15	1350
LH400M0220BPF-2250	220	400	22X50	1760	0.15	1500
LH400M0220BPF-2540	220	400	25X40	1760	0.15	1500
LH400M0220BPF-3030	220	400	30X30	1760	0.15	1500
LH400M0220BPF-3525	220	400	35X25	1760	0.15	1500
LH400M0270BPF-2540	270	400	25X40	2160	0.15	1650
LH400M0270BPF-3035	270	400	30X35	2160	0.15	1650
LH400M0270BPF-3530	270	400	35X30	2160	0.15	1650
LH400M0330BPF-3040	330	400	30X40	2640	0.15	1900
LH400M0330BPF-3530	330	400	35X30	2640	0.15	1850
LH400M0390BPF-3045	390	400	30X45	3000	0.15	2150
LH400M0390BPF-3535	390	400	35X35	3000	0.15	2100
LH400M0470BPF-3050	470	400	30X50	3000	0.15	2400

Table 1-11 LH Type, Standard Ratings and Catalog Number (LIFE：85℃,2000Hr.)

Catalog Number	Capa-citance (uF)	Rated Voltage (V.DC)	Size (mm) D X L	Leakage Current (uA)	Dissipation Factor (Tan δ)	Ripple 120 Hz (mA)
LH400M0470BPF-3540	470	400	35X40	3000	0.15	2400
LH400M0560BPF-3545	560	400	35X45	3000	0.15	2700
LH400M0680BPF-3550	680	400	35X50	3000	0.15	2900
LH450M0056BPF-2225	56	450	22X25	504	0.20	650
LH450M0068BPF-2230	68	450	22X30	612	0.20	700
LH450M0068BPF-2525	68	450	25X25	612	0.20	700
LH450M0082BPF-2230	82	450	22X30	738	0.20	800
LH450M0082BPF-2525	82	450	25X25	738	0.20	800
LH450M0100BPF-2235	100	450	22X35	900	0.20	950
LH450M0100BPF-2530	100	450	25X30	900	0.20	950
LH450M0100BPF-3025	100	450	30X25	900	0.20	950
LH450M0120BPF-2240	120	450	22X40	1080	0.20	1050
LH450M0120BPF-2530	120	450	25X30	1080	0.20	1050
LH450M0120BPF-3025	120	450	30X25	1080	0.20	1050
LH450M0150BPF-2245	150	450	22X45	1350	0.20	1200
LH450M0150BPF-2535	150	450	25X35	1350	0.20	1200
LH450M0150BPF-3030	150	450	30X30	1350	0.20	1200
LH450M0180BPF-2540	180	450	25X40	1620	0.20	1350
LH450M0180BPF-3035	180	450	30X35	1620	0.20	1350
LH450M0180BPF-3525	180	450	35X25	1620	0.20	1350
LH450M0220BPF-2550	220	450	25X50	1980	0.20	1550
LH450M0220BPF-3040	220	450	30X40	1980	0.20	1550
LH450M0220BPF-3530	220	450	35X30	1980	0.20	1550
LH450M0270BPF-3045	270	450	30X45	2430	0.20	1750
LH450M0270BPF-3535	270	450	35X35	2430	0.20	1700
LH450M0330BPF-3050	330	450	30X50	2970	0.20	2000
LH450M0330BPF-3540	330	450	35X40	2970	0.20	2000
LH450M0390BPF-3545	390	450	35X45	3000	0.20	2250
LH450M0470BPF-3550	470	450	35X50	3000	0.20	2500

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