Yageo Corporation

Date: 3/06/2009

Aluminum Electrolytic Capacitors
File:2071

Engineering Bulletin for SY Type

SY Type

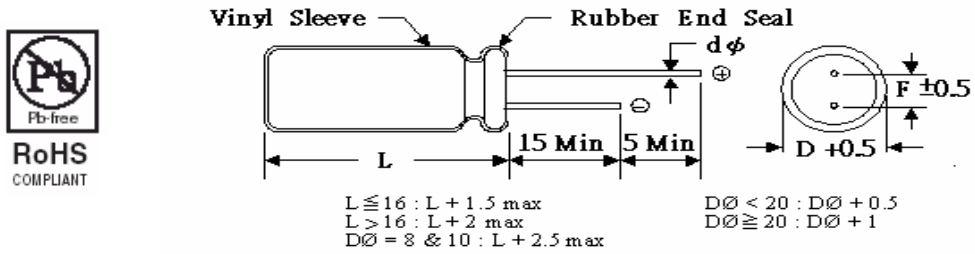
-40 to +105° C Very low impedance and ESR, miniature aluminum electrolytic capacitors.

SY type capacitors have been developed for use in switching regulators and other high frequency applications, which feature low equivalent series resistance, impedance and inductance over wide temperature range.

All our aluminum capacitors are lead free.

Diagram of Dimensions (Unit = mm)

Construction of terminal: Fe/Cu/Sn



D ¢	4.0	5.0	6.3	8.0	10.0	12.0	13.0	16.0	18.0	22.0
F	1.5	2.0	2.5	3.5	5.0			7.5		10.0
D ¢	0.5				0.6			0.8		0.8

PERFORMANCE CHARACTERISTICS

Feature

. Working voltage range : 6.3 to 50V

. Operating temp. range : -40 to 105 °C

. Rate capacitance range : 1.0 to 18000uF

. Capacitance tolerance : -20 to +20%

. DC leakage current (uA) : 0.01CV or 3uA whichever is greater.

(Measurements shall be made after a 2 minute charge at rated working voltage)

Dissipation factor : at 120 Hz, 25 °C

WV(V)	6.3	10	16	25	35	50	63	100
DF(%)	22	19	16	14	12	10	0.09	0.08

For capacitor whose capacitance exceeds 1000 uF, the value of DF(%) is increased by 2% for every addition of 1000 uF.

. Load Life

(3000hrs for 5 φ~6.3 φ; 4000hrs for 8 φ~10 φ x12.5 ; 5000hrs for 10 φ X15~12 φ ; 6000hrs for 13 φ~18 φ at rated temperature).

註解:

Capacitance change ..... : within 25% of initial value

Dissipation factor ..... : not exceed 200% of the specified value

Leakage current ..... : not exceed of the specified value

. Shelf Life (1000 hrs, no voltage applied)

Capacitance change ..... : within 25% of initial value

Dissipation factor ..... : not exceed 200% of the specified value

Leakage current ..... : not exceed of the specified value

Catalog Numbering

SY 006 M 0100 B 2 F - 0511

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: : : : : : : : :…Case size

: : : : : : : :…Lead cut

: : : : : : : …Rubber

: : : : : : …Pitch

: : : : : …Package Code

: : : : …Capacitance. This expressed in microfarads

: : : …Capacitance tolerance

: : …DC voltage rating. This is expressed in volt.

:…YAGEO type number. This identifies the basic capacitor design

PERFORMANCE CHARACTERISTICS (continued)

1. General Characteristics

1.1 Marking

Capacitors shall be marked with YAGEO mark ; rated capacitance ; rated DC working voltage range. and the date code of manufacture.

The cathode 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°C to +105°C .

1.2.1 At -40°C , capacitors shall retain at least 70% of their original 25°C measured capacitance. At +105°C. capacitance shall increases to no more than 120% of their original 25°C measured capacitance.

1.2.2 At -40°C , impedance shall increase to no more than the following table.

TEMPERATURE CHARACTERISTIC (@ 120Hz)

Working Voltage (WV)	6.3	10	16	25	35	50	63	100
Impedance Z-40°C / Z+20°C	8	6	4	3	3	3	3	3

1.3 Vent Test (applies only to those capacitors with vents)

During and after the applicable test below (1.3.1 or 1.3.2.) there shall be no explosion, flash, flame or expulsion of particles of the core or container. In addition, the case shall not be expelled from the core. If the capacitor under test is a multisection unit, this test shall apply to the input section only.

1.3.1 AC Test Capacitors with DC Rating Over 100 Volts

The capacitor under test shall be connected to a 120 volt RMS 60Hz, 100 ampere service through a 30 ampere thermal breaker and a 0.5 ohm, low inductance, series resistor. The capacitor shall be connected to this circuit for 5 minutes after the initial setting of the breaker or until the breaker has opened 3 times. lf the breaker opens, it shall be reset not sooner than 30 seconds nor longer than 60 seconds from the time it opened.

1.3.2 DC Test. Capacitors with DC Rating 100 Volts or Less

Both of the following tests shall be performed, but on separate test units.

1.3.2.1 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 the 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.

PERFORMANCE CHARACTERISTICS (continued)

1.3.2.2 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 milliamperes when the positive capacitor terminal is connected to the negative supply terminal and the negative capacitor terminal to the positive supply terminal.The constant current shall be maintained until (1) the capacitor vents, (2)300 seconds have elapsed, or(3)The capacitor open circuits.

2. Mechanical Characteristics

2.1 Lead Pull test

Capacitor leads shall withstand a steady pull of 1 Kg applied axially to the leads for 5 seconds.

3. Electrical Characteristics

3.1 Standard Test Conditions

Unless otherwise specified all tests shall be performed at, or referred to, an ambient temperature of 25°C and a relative humidity not greater than 50%.

3.2 Capacitance and Dissipation Factor

Measurements shall be made on a capacitance bridge capable of +-2% accuracy on capacitance and dissipation factor measurements. Measurements shall be made at 120 Hz 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 after a 2 minute charge at rated

working voltage at 25°C 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 25ºC.

PERFORMANCE CHARACTERISTICS(continued)

3.4.2 After the test, the capacitors shall 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 85% of the value before test
Dissipation Factor	Not more than 100% of the initial value specified

3.5 Humidity Test

Capacitors hall be subjected to a temperature of 40 +-2°C at a relative humidity of 90-95% for a period of 500 hours, then air dried for 1 hour. Following this conditioning, capacitors shall meet the specified requirements for dissipation factor and DC leakage current, and the capacitance value shall not change more than 10%.

4. Life And Reliability Test

4.1 Life Test

4.1.1 Rated voltage shall be applied to the capacitors for a period of 6000 hours(3000hrs for 5 φ ~6.3 φ ; 4000hrs for 8 φ ~10 φ x12; 5000hrs for 10 φ x15~10 φ x30; 6000hrs for 13 φ ~18 φ at rated temperature) with maximum ripple current at 105℃±2

註解:

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 It shall not decrease to less than 75% of the capacitance at 25°C, measured prior to the test, nor shall it increase to more than 125% of the original 25°C 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. Measurements shall be made in accordance with section 3.3

4.2 Shelf Test

After storage for 1000 hours at 105°C with no voltage applied, the capacitance change within 80% of the capacitance at 25°C and dissipation factor shall meet the initial requirements of section 4.1.4; the DC leakage current, measured in accordance with section 3.3, shall not exceed 200% of the initial requirement for the capacitor.

GUIDE TO APPLICATION

1. Maximum Ripple Current

1.1 Maximum rms. ripple current at 105°C,100K Hz is given in the table 1.

1.2 When capacitors are operated at temperatures other than 105°C , and frequency other than 100K Hz, the maximum rms. ripple currents must be multiplied by the factors shown in below table.

COMPENSATION FACTOR OF RIPPLE CURRENT VERSUS FREQUENCY

uF \ Frequency	120	1K	10K	100K (Hz)
22 ~ 180	0.40	0.75	0.90	1
220 ~ 560	0.50	0.85	0.94	1
680 ~ 1800	0.60	0.87	0.95	1
2200 ~ 3900	0.75	0.90	0.95	1
4700 above	0.85	0.95	0.98	1

FACTOR OF RIPPLE CURRENT VS. TEMPERATURE

Temperature	65	85	105 (°C)
Factor	1.8	1.5	1

2. Ripple voltage

Ripple voltage must not exceed the following:

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

4-1 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 260ºC for less than 10 seconds.

4-2 Soldering may melt or break the sleeve,if the 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. 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 is developed by circuit malfunction or capacitor mis-use.

6. High Altitude

These capacitors are capable of withstanding in transit conditions where storage temperature may range from -40ºC to +105ºC and the altitude may reach 200,000 feet.

7. 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.

8. Others

(1) All Yageo capacitors comply to RoHS(Restriction of Hazardous Substances) requirements where Chromium (Cr+6),Cadmium(Cd), Mercury(Hg), Lead (pb), Polybrominated biphenyls(PBBs)and Polybrominated biphenyl/diphenyl ethers (PBBEs/PBDEs) have not been detected [lower than MDL (Method Detection Limit)] per SGS certification test report.

(2) Satisfied characteristic JIS C 5101

(3) Aluminum Electrolytic Capacitors may be damaged by corrosion which is caused by any halogenated hydrocarbon solvents. Please let us know in advance the solvent name and conditions for your PCB cleaning.

Table 1-1 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μF)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (μA)	Dissipation Factor (Tan δ)	Ripple 100KHz (mA)	Impedance 100KHz (ohm)
SY006M0150A2F-0511	150	6.3	5X11	9.45	0.22	210	0.580
SY006M0150B2F-0511	150	6.3	5X11	9.45	0.22	210	0.580
SY006M0150AZF-0511	150	6.3	5X11	9.45	0.22	210	0.580
SY006M0150A5F-0511	150	6.3	5X11	9.45	0.22	210	0.580
SY006M0150AZF-0605	150	6.3	6.3X5	9.45	0.22	160	0.750
SY006M0150BZF-0605	150	6.3	6.3X5	9.45	0.22	160	0.750
SY006M0150A5F-0605	150	6.3	6.3X5	9.45	0.22	160	0.750
SY006M0150AZF-0607	150	6.3	6.3X7	9.45	0.22	180	0.700
SY006M0150BZF-0607	150	6.3	6.3X7	9.45	0.22	180	0.700
SY006M0150A5F-0607	150	6.3	6.3X7	9.45	0.22	180	0.700
SY006M0150AZF-0611	150	6.3	6.3X11	9.45	0.22	220	0.550
SY006M0150BZF-0611	150	6.3	6.3X11	9.45	0.22	220	0.550
SY006M0150A5F-0611	150	6.3	6.3X11	9.45	0.22	220	0.550
SY006M0150A3F-0811	150	8	8X11	9.45	0.22	260	0.470
SY006M0150B3F-0811	150	8	8X11	9.45	0.22	260	0.470
SY006M0150A5F-0811	150	8	8X11	9.45	0.22	260	0.470
SY006M0220AZF-0605	220	6.3	6.3X5	13.86	0.22	175	0.450
SY006M0220BZF-0605	220	6.3	6.3X5	13.86	0.22	175	0.450
SY006M0220A5F-0605	220	6.3	6.3X5	13.86	0.22	175	0.450
SY006M0220AZF-0607	220	6.3	6.3X7	13.86	0.22	195	0.410
SY006M0220BZF-0607	220	6.3	6.3X7	13.86	0.22	195	0.410
SY006M0220A5F-0607	220	6.3	6.3X7	13.86	0.22	195	0.410
SY006M0220AZF-0611	220	6.3	6.3X11	13.86	0.22	250	0.320
SY006M0220BZF-0611	220	6.3	6.3X11	13.86	0.22	250	0.320
SY006M0220A5F-0611	220	6.3	6.3X11	13.86	0.22	250	0.320
SY006M0220A3F-0807	220	8	8X7	13.86	0.22	230	0.350
SY006M0220B3F-0807	220	8	8X7	13.86	0.22	230	0.350
SY006M0220A5F-0807	220	8	8X7	13.86	0.22	230	0.350
SY006M0220A3F-0811	220	8	8X11	13.86	0.22	280	0.290
SY006M0220B3F-0811	220	8	8X11	13.86	0.22	280	0.290
SY006M0220A5F-0811	220	8	8X11	13.86	0.22	280	0.290
SY006M0330AZF-0611	330	6.3	6.3X11	20.79	0.22	340	0.220
SY006M0330BZF-0611	330	6.3	6.3X11	20.79	0.22	340	0.220
SY006M0330A5F-0611	330	6.3	6.3X11	20.79	0.22	340	0.220
SY006M0470AZF-0611	470	6.3	6.3X11	29.6	0.22	510	0.160
SY006M0470BZF-0611	470	6.3	6.3X11	29.6	0.22	510	0.160
SY006M0470A5F-0611	470	6.3	6.3X11	29.6	0.22	510	0.160
SY006M0470A3F-0811	470	6.3	8X11	29.6	0.22	570	0.160

Table 1-2 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (Mf)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY006M0470B3F-0811	470	6.3	8X11	29.6	0.22	570	0.160
SY006M0470A5F-0811	470	6.3	8X11	29.6	0.22	570	0.160
SY006M0680A3F-0811	680	6.3	8X11	42.84	0.22	640	0.130
SY006M0680B3F-0811	680	6.3	8X11	42.84	0.22	640	0.130
SY006M0680A5F-0811	680	6.3	8X11	42.84	0.22	640	0.130
SY006M0820A3F-0815	820	6.3	8X15	51.66	0.22	780	0.087
SY006M0820A3S-0815	820	6.3	8X15	51.66	0.22	780	0.087
SY006M0820B3F-0815	820	6.3	8X15	51.66	0.22	780	0.087
SY006M0820A5F-0815	820	6.3	8X15	51.66	0.22	780	0.087
SY006M0820A5S-1012	820	6.3	10X12	51.66	0.22	865	0.080
SY006M0820B5S-1012	820	6.3	10X12	51.66	0.22	865	0.080
SY006M1000A3F-0811	1000	6.3	8X11	63.0	0.22	697	0.104
SY006M1000B3F-0811	1000	6.3	8X11	63.0	0.22	697	0.104
SY006M1000A5F-0811	1000	6.3	8X11	63.0	0.22	697	0.104
SY006M1000A3F-0815	1000	6.3	8X15	63.0	0.22	840	0.087
SY006M1000B3F-0815	1000	6.3	8X15	63.0	0.22	840	0.087
SY006M1000A5F-0815	1000	6.3	8X15	63.0	0.22	840	0.087
SY006M1000A5S-1012	1000	6.3	10X12	63.0	0.22	820	0.080
SY006M1000B5S-1012	1000	6.3	10X12	63.0	0.22	820	0.080
SY006M1200A3F-0820	1200	6.3	8X20	75.6	0.22	1050	0.069
SY006M1200B3F-0820	1200	6.3	8X20	75.6	0.22	1050	0.069
SY006M1200A5F-0820	1200	6.3	8X20	75.6	0.22	1050	0.069
SY006M1200A5S-1015	1200	6.3	10X15	75.6	0.22	1210	0.060
SY006M1200B5S-1015	1200	6.3	10X15	75.6	0.22	1210	0.060
SY006M1500A3F-0820	1500	6.3	8X20	94.5	0.22	1050	0.069
SY006M1500B3F-0820	1500	6.3	8X20	94.5	0.22	1050	0.069
SY006M1500A5F-0820	1500	6.3	8X20	94.5	0.22	1050	0.069
SY006M1500A5S-1015	1500	6.3	10X15	94.5	0.22	1210	0.060
SY006M1500B5S-1015	1500	6.3	10X15	94.5	0.22	1210	0.060
SY006M1500A5S-1019	1500	6.3	10X19.5	94.5	0.22	1400	0.046
SY006M1500B5S-1019	1500	6.3	10X19.5	94.5	0.22	1400	0.046
SY006M1800A5S-1315	1800	6.3	13X15	113.4	0.22	1450	0.049
SY006M1800B5S-1315	1800	6.3	13X15	113.4	0.22	1450	0.049
SY006M2200A5S-1019	2200	6.3	10X19.5	138.6	0.24	1400	0.046
SY006M2200B5S-1019	2200	6.3	10X19.5	138.6	0.24	1400	0.046
SY006M2200A5S-1025	2200	6.3	10X25	138.6	0.24	1650	0.042
SY006M2200B5S-1025	2200	6.3	10X25	138.6	0.24	1650	0.042
SY006M2700A5S-1030	2700	6.3	10X30	170.1	0.24	1910	0.031

Table 1-3 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (Mf)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY006M2700B5S-1030	2700	6.3	10X30	170.1	0.24	1910	0.031
SY006M2700A7F-1615	2700	6.3	16X15	170.1	0.24	1940	0.042
SY006M2700B7F-1615	2700	6.3	16X15	170.1	0.24	1940	0.042
SY006M3300A5S-1025	3300	6.3	10X25	207.9	0.26	1650	0.042
SY006M3300B5S-1012	3300	6.3	10X25	207.9	0.26	1650	0.042
SY006M3300A5S-1320	3300	6.3	13X20	207.9	0.26	1900	0.035
SY006M3300B5S-1320	3300	6.3	13X20	207.9	0.26	1900	0.035
SY006M3900A5S-1325	3900	6.3	13X25	245.7	0.26	2230	0.027
SY006M3900B5S-1325	3900	6.3	13X25	245.7	0.26	2230	0.027
SY006M3900B7F-1815	3900	6.3	18X15	245.7	0.26	2210	0.043
SY006M4700A5S-1330	4700	6.3	13X30	296.1	0.28	2650	0.024
SY006M4700B5S-1330	4700	6.3	13X30	296.1	0.28	2650	0.024
SY006M5600A5S-1335	5600	6.3	13X25	352.8	0.30	2880	0.020
SY006M5600B5S-1335	5600	6.3	13X25	352.8	0.30	2880	0.020
SY006M5600A7F-1620	5600	6.3	16X20	352.8	0.30	2530	0.027
SY006M5600B7F-1620	5600	6.3	16X20	352.8	0.30	2530	0.027
SY006M6800A5S-1340	6800	6.3	13X40	428.4	0.32	3350	0.017
SY006M6800B5S-1340	6800	6.3	13X40	428.4	0.32	3350	0.017
SY006M6800A7F-1625	6800	6.3	16X25	428.4	0.32	2930	0.021
SY006M6800B7F-1625	6800	6.3	16X25	428.4	0.32	2930	0.021
SY006M6800B7S-1820	6800	6.3	18X20	428.4	0.32	2860	0.026
SY006M8200B7S-1632	8200	6.3	16X32	516.6	0.36	2450	0.017
SY006M10K0B7F-1636	10000	6.3	16X36	630	0.40	3610	0.015
SY006M10K0B7F-1825	10000	6.3	18X25	630	0.40	3140	0.017
SY006M12K0B7F-1832	12000	6.3	18X32	756	0.44	4170	0.015
SY006M15K0B7F-1836	15000	6.3	18X36	945	0.50	4220	0.014
SY010M0100A2F-0511	100	10	5X11	10	0.19	210	0.580
SY010M0100B2F-0511	100	10	5X11	10	0.19	210	0.580
SY010M0100AZF-0511	100	10	5X11	10	0.19	210	0.580
SY010M0100A5F-0511	100	10	5X11	10	0.19	210	0.580
SY010M0220AZF-0611	220	10	6.3X11	22	0.19	340	0.220
SY010M0220BZF-0611	220	10	6.3X11	22	0.19	340	0.220
SY010M0220A5F-0611	220	10	6.3X11	22	0.19	340	0.220
SY010M0470A3F-0811	470	10	8X11	47	0.19	640	0.130
SY010M0470B3F-0811	470	10	8X11	47	0.19	640	0.130
SY010M0470A5F-0811	470	10	8X11	47	0.19	640	0.130
SY010M0680A3F-0815	680	10	8X15	68	0.19	840	0.087
SY010M0680B3F-0815	680	10	8X15	68	0.19	840	0.087

Table 1-4 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (Mf)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY010M0680A5F-0815	680	10	8X15	68	0.19	840	0.087
SY010M0820A5S-1012	820	10	10X12	82	0.19	865	0.080
SY010M0820B5S-1012	820	10	10X12	82	0.19	865	0.080
SY010M1000A3F-0820	1000	10	8X20	100	0.19	1050	0.069
SY010M1000B3F-0820	1000	10	8X20	100	0.19	1050	0.069
SY010M1000A5F-0820	1000	10	8X20	100	0.19	1050	0.069
SY010M1000A5S-1015	1000	10	10X15	100	0.19	1210	0.060
SY010M1000B5S-1015	1000	10	10X15	100	0.19	1210	0.060
SY010M1200A5S-1019	1200	10	10X19.5	120	0.19	1400	0.046
SY010M1200B5S-1019	1200	10	10X19.5	120	0.19	1400	0.046
SY010M1500A5S-1025	1500	10	10X25	150	0.19	1650	0.042
SY010M1500B5S-1025	1500	10	10X25	150	0.19	1650	0.042
SY010M1500A5S-1315	1500	10	13X15	150	0.19	1450	0.049
SY010M1500B5S-1315	1500	10	13X15	150	0.19	1450	0.049
SY010M2200A5S-1030	2200	10	10X30	220	0.21	1910	0.031
SY010M2200B5S-1030	2200	10	10X30	220	0.21	1910	0.031
SY010M2200A5S-1320	2200	10	13X20	220	0.21	1900	0.035
SY010M2200B5S-1320	2200	10	13X20	220	0.21	1900	0.035
SY010M2200A7F-1615	2200	10	16X15	220	0.21	1940	0.042
SY010M2200B7F-1615	2200	10	16X15	220	0.21	1940	0.042
SY010M2700B7F-1815	2700	10	18X15	270	0.21	2210	0.043
SY010M3300A5S-1030	3300	10	10X30	330	0.23	1990	0.030
SY010M3300B5S-1030	3300	10	10X30	330	0.23	1990	0.030
SY010M3300B5S-1030	3300	10	10X30	330	0.23	1990	0.030
SY010M3300A5S-1325	330	10	13X25	330	0.23	2230	0.027
SY010M3300B5S-1325	3300	10	13X25	330	0.23	2230	0.027
SY010M3900A5S-1330	3900	10	13X30	390	0.23	2650	0.024
SY010M3900B5S-1330	3900	10	13X30	390	0.23	2650	0.024
SY010M3900A7F-1620	3900	10	16X20	390	0.23	2530	0.027
SY010M3900B7F-1620	3900	10	16X20	390	0.23	2530	0.027
SY010M4700A5S-1325	4700	10	13X25	470	0.25	2880	0.020
SY010M4700B5S-1325	4700	10	13X25	470	0.25	2880	0.020
SY010M5600A5S-1340	5600	10	13X40	560	0.27	3350	0.017
SY010M5600B5S-1340	5600	10	13X40	560	0.27	3350	0.017
SY010M5600B7F-1625	5600	10	16X25	560	0.27	2930	0.021
SY010M5600B7F-1820	5600	10	18X20	560	0.27	2860	0.026
SY010M6800B7F-1632	6800	10	16X32	680	0.29	3450	0.017
SY010M6800B7F-1825	6800	10	18X25	680	0.29	3140	0.019

Table 1-5 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μ F)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (μ A)	Dissipation Factor (Tan δ)	Ripple 100KHz (mA)	Impedance 100KHz (ohm)
SY010M8200B7F-1636	8200	10	16X36	820	0.33	3610	0.015
SY010M8200B7F-1832	8200	10	18X32	820	0.33	4170	0.015
SY010M10K0B7F-1640	10000	10	16X40	1000	0.37	4080	0.013
SY010M10K0B7F-1836	10000	10	18X36	1000	0.37	4220	0.014
SY010M12K0B7F-1840	12000	10	18X40	1200	0.41	4280	0.012
SY016M0047A2F-0511	47	16	5X11	7.52	0.16	155	0.630
SY016M0047B2F-0511	47	16	5X11	7.52	0.16	155	0.630
SY016M0047BZF-0511	47	16	5X11	7.52	0.16	155	0.630
SY016M0047B5F-0511	47	16	5X11	7.52	0.16	155	0.630
SY016M0056A2F-0511	56	16	5X11	8.96	0.16	210	0.580
SY016M0056B2F-0511	56	16	5X11	8.96	0.16	210	0.580
SY016M0056AZF-0511	56	16	5X11	8.96	0.16	210	0.580
SY016M0056A5F-0511	56	16	5X11	8.96	0.16	210	0.580
SY016M0120AZF-0611	120	16	6.3X11	19.2	0.16	340	0.220
SY016M0120BZF-0611	120	16	6.3X11	19.2	0.16	340	0.220
SY016M0120B5F-0611	120	16	6.3X11	19.2	0.16	340	0.220
SY016M0220AZF-0611	220	16	6.3X11	35.2	0.16	469	0.185
SY016M0220BZF-0611	220	16	6.3X11	35.2	0.16	469	0.185
SY016M0220A5F-0611	220	16	6.3X11	35.2	0.16	469	0.185
SY016M0330A3F-0811	330	16	8X11	52.8	0.16	640	0.130
SY016M0330B3F-0811	330	16	8X11	52.8	0.16	640	0.130
SY016M0330A5F-0811	330	16	8X11	52.8	0.16	640	0.130
SY016M0470A3F-0811	470	16	8X15	75.2	0.16	840	0.087
SY016M0470B3F-0811	470	16	8X15	75.2	0.16	840	0.087
SY016M0470A5F-0811	470	16	8X15	75.2	0.16	840	0.087
SY016M0470A5S-1012	470	16	10X12	75.2	0.16	865	0.080
SY016M0470B5S-1012	470	16	10X12	75.2	0.16	865	0.080
SY016M0680A3F-0820	680	16	8X20	108.8	0.16	1050	0.069
SY016M0680B3F-0820	680	16	8X20	108.8	0.16	1050	0.069
SY016M0680A5F-0820	680	16	8X20	108.8	0.16	1050	0.069
SY016M0680A5S-1015	680	16	10X15	108.8	0.16	1210	0.060
SY016M0680B5S-1015	680	16	10X15	108.8	0.16	1210	0.060
SY016M1000A5S-1015	1000	16	10X15	160	0.16	1210	0.060
SY016M1000B5S-1015	1000	16	10X15	160	0.16	1210	0.060
SY016M1000A5S-1019	1000	16	10X19.5	160	0.16	1400	0.046
SY016M1000B5S-1019	1000	16	10X19.5	160	0.16	1400	0.046
SY016M1000A5S-1315	1000	16	13X15	160	0.16	1450	0.049

Table 1-6 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (Mf)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY016M1000B5S-1315	1000	16	13X15	160	0.16	1450	0.049
SY016M1200A5S-1025	1200	16	10X25	192	0.16	1650	0.042
SY016M1200B5S-1025	1200	16	10X25	192	0.16	1650	0.042
SY016M1500A5S-1030	1500	16	10X30	240	0.16	1910	0.031
SY016M1500B5S-1030	1500	16	10X30	240	0.16	1910	0.031
SY016M1500A5S-1320	1500	16	13X20	240	0.16	1900	0.035
SY016M1500B5S-1320	1500	16	13X20	240	0.16	1900	0.035
SY016M1500A7F-1615	1500	16	16X15	240	0.16	1940	0.042
SY016M1500B7F-1615	1500	16	16X15	240	0.16	1940	0.042
SY016M2200A5S-1325	2200	16	13X25	352	0.18	2230	0.027
SY016M2200B5S-1325	2200	16	13X25	352	0.18	2230	0.027
SY016M2200B7F-1815	2200	16	18X15	352	0.18	2210	0.043
SY016M2700A5S-1330	2700	16	13X30	432	0.18	2650	0.024
SY016M2700B5F-1330	2700	16	13X30	432	0.18	2650	0.024
SY016M2700A7F-1620	2700	16	16X20	432	0.18	2530	0.027
SY016M2700B7F-1620	2700	16	16X20	432	0.18	2530	0.027
SY016M3300A5S-1335	3300	16	13X35	528	0.20	2880	0.020
SY016M3300B5S-1335	3300	16	13X35	528	0.20	2880	0.020
SY016M3900A5S-1340	3900	16	13X40	624	0.20	3350	0.017
SY016M3900B5S-1340	3900	16	13X40	624	0.20	3350	0.017
SY016M3900A7F-1625	3900	16	16X25	624	0.20	2930	0.021
SY016M3900B7F-1625	3900	16	16X25	624	0.20	2930	0.021
SY016M3900B7F-1820	3900	16	18X20	624	0.20	2860	0.026
SY016M4700B7F-1632	4700	16	16X32	752	0.22	3450	0.017
SY016M4700B7F-1825	4700	16	18X25	752	0.22	3140	0.019
SY016M5600B7F-1636	5600	16	16X36	896	0.24	3610	0.015
SY016M5600B7F-1832	5600	16	18X32	896	0.24	4170	0.015
SY016M6800B7F-1640	6800	16	16X40	1088	0.26	4080	0.013
SY016M8200B7F-1836	8200	16	18X36	1312	0.30	4220	0.014
SY016M10K0B7F-1840	10000	16	18X40	1600	0.34	4280	0.012
SY025M0047A2F-0511	47	25	5X11	11.75	0.14	210	0.580
SY025M0047B2F-0511	47	25	5X11	11.75	0.14	210	0.580
SY025M0047AZF-0511	47	25	5X11	11.75	0.14	210	0.580
SY025M0047A5F-0511	47	25	5X11	11.75	0.14	210	0.580
SY025M0100AZF-0611	100	25	6.3X11	25	0.14	340	0.220
SY025M0100BZF-0611	100	25	6.3X11	25	0.14	340	0.220
SY025M0100A5F-0611	100	25	6.3X11	25	0.14	340	0.220

Table 1-7 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (Mf)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY025M0150A3F-0811	150	25	8X11	37.5	0.14	640	0.160
SY025M0150B3F-0811	150	25	8X11	37.5	0.14	640	0.160
SY025M0150A5F-0811	150	25	8X11	37.5	0.14	640	0.160
SY025M0220A3F-0811	220	25	8X11	55	0.14	640	0.130
SY025M0220B3F-0811	220	220	8X11	55	0.14	640	0.130
SY025M0220A5F-0811	220	25	8X11	55	0.14	640	0.130
SY025M0330A3F-0811	330	25	8X11	82.5	0.14	680	0.130
SY025M0330B3F-0811	330	25	8X11	82.5	0.14	680	0.130
SY025M0330A5F-0811	330	25	8X11	82.5	0.14	680	0.130
SY025M0330A3F-0815	330	25	8X15	82.5	0.14	840	0.087
SY025M0330B3F-0815	330	25	8X15	82.5	0.14	840	0.087
SY025M0330A5F-0815	330	25	8X15	82.5	0.14	840	0.087
SY025M0330A5S-1012	330	25	10X12	82.5	0.14	865	0.080
SY025M0330B5S-1012	330	25	10X12	82.5	0.14	865	0.080
SY025M0470A3F-0820	470	25	8X20	117.5	0.14	1050	0.069
SY025M0470B3F-0820	470	25	8X20	117.5	0.14	1050	0.069
SY025M0470A5F-0820	470	25	8X20	117.5	0.14	1050	0.069
SY025M0470A5S-1012	470	25	10X12	117.5	0.14	1050	0.070
SY025M0470B5S-1012	470	25	10X12	117.5	0.14	1050	0.070
SY025M0470A5S-1015	470	25	10X15	117.5	0.14	1210	0.060
SY025M0470B5S-1015	470	25	10X15	117.5	0.14	1210	0.060
SY025M0680A5S-1019	680	25	10X19.5	170	0.14	1400	0.046
SY025M0680B5S-1019	680	25	10X19.5	170	0.14	1400	0.046
SY025M0820A5S-1025	820	25	10X25	205	0.14	1650	0.042
SY025M0820B5S-1025	820	25	10X25	205	0.14	1650	0.042
SY025M1000A5S-1019	1000	25	10X19.5	250	0.14	1400	0.046
SY025M1000B5S-1019	1000	25	10X19.5	250	0.14	1400	0.046
SY025M1000A5S-1030	1000	25	10X30	250	0.14	1910	0.031
SY025M1000B5S-1030	1000	25	10X30	250	0.14	1910	0.031
SY025M1000A5S-1320	1000	25	13X20	250	0.14	1900	0.035
SY025M1000B5S-1320	1000	25	13X20	250	0.14	1900	0.035
SY025M1200B7F-1815	1200	25	18X15	300	0.14	2210	0.043
SY025M1500A5S-1325	1500	25	13X25	375	0.14	2230	0.027
SY025M1500B5S-1325	1500	25	13X25	375	0.14	2230	0.027
SY025M1800A5S-1330	1800	25	13X30	450	0.14	2650	0.024
SY025M1800B5S-1330	1800	25	13X30	450	0.14	2650	0.024
SY025M1800A7F-1620	1800	25	16X20	450	0.14	2530	0.027

Table 1-8 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (Mf)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY025M1800B7F-1620	1800	25	16X20	450	0.14	2530	0.027
SY025M2200A5S-1335	2200	25	13X25	550	0.16	2880	0.020
SY025M2200B5S-1335	2200	25	13X25	550	0.16	2880	0.020
SY025M2200B7F-1620	2200	25	16X20	550	0.16	2400	0.027
SY025M2200C7FW1620	2200	25	16X20	550	0.16	2400	0.027
SY025M2200B7F-1820	2200	25	18X20	550	0.16	2860	0.026
SY025M2700A5S-1340	2700	25	13X40	675	0.16	3350	0.017
SY025M2700B5S-1340	2700	25	13X40	675	0.16	3350	0.017
SY025M2700A7F-1625	2700	25	16X25	675	0.16	2930	0.021
SY025M2700B7F-1625	2700	25	16X25	675	0.16	2930	0.021
SY025M3300B7F-1632	3300	25	16X32	825	0.18	3450	0.017
SY025M3300B7F-1825	3300	25	18X25	825	0.18	3140	0.019
SY025M3900B7F-1832	3900	25	18X32	975	0.18	4170	0.015
SY025M4700B7F-1836	4700	25	18X36	1175	0.20	4220	0.014
SY025M5600B7F-1840	5600	25	18X40	1400	0.22	4280	0.012
SY035M4R70A2F-0511	4.7	35	5X11	3.00	0.12	130	2.400
SY035M4R70B2F-0511	4.7	35	5X11	3.00	0.12	130	2.400
SY035M4R70AZF-0511	4.7	35	5X11	3.00	0.12	130	2.400
SY035M4R70A5F-0511	4.7	35	5X11	3.00	0.12	130	2.400
SY035M0010A2F-0511	10	35	5X11	3.50	0.12	275	0.390
SY035M0010B2F-0511	10	35	5X11	3.50	0.12	275	0.390
SY035M0010AZF-0511	10	35	5X11	3.50	0.12	275	0.390
SY035M0010A5F-0511	10	35	5X11	3.50	0.12	275	0.390
SY035M0033A2F-0511	33	35	5X11	11.55	0.12	210	0.580
SY035M0033B2F-0511	33	35	5X11	11.55	0.12	210	0.580
SY035M0033AZF-0511	33	35	5X11	11.55	0.12	210	0.580
SY035M0033A5F-0511	33	35	5X11	11.55	0.12	210	0.580
SY035M0047AZF-0611	47	35	6.3X11	16.45	0.12	275	0.390
SY035M0047BZF-0611	47	35	6.3X11	16.45	0.12	275	0.390
SY035M0047A5F-0611	47	35	6.3X11	16.45	0.12	275	0.390
SY035M0056AZF-0611	56	35	6.3X11	19.6	0.12	340	0.220
SY035M0056BZF-0611	56	35	6.3X11	19.6	0.12	340	0.220
SY035M0056A5F-0611	56	35	6.3X11	19.6	0.12	340	0.220
SY035M0100AZF-0611	100	35	6.3X11	35	0.12	580	0.150
SY035M0100BZF-0611	100	35	6.3X11	35	0.12	580	0.150
SY035M0100A5F-0611	100	35	6.3X11	35	0.12	580	0.150
SY035M0100A3F-0811	100	35	8X11	35	0.12	630	0.180

Table 1-9 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μF)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (μA)	Dissipation Factor (Tan δ)	Ripple 100KHz (mA)	Impedance 100KHz (ohm)
SY035M0100B3F-0811	100	35	8X11	35	0.12	630	0.180
SY035M0100A5F-0811	100	35	8X11	35	0.12	630	0.180
SY035M0150A3F-0811	150	35	8X11	52.5	0.12	640	0.130
SY035M0150B3F-0811	150	35	8X11	52.5	0.12	640	0.130
SY035M0150A5F-0811	150	35	8X11	52.5	0.12	640	0.130
SY035M0220A3F-0815	220	35	8X15	77	0.12	840	0.087
SY035M0220B7F-0815	220	35	8X15	77	0.12	840	0.087
SY035M0220A5F-0815	220	35	8X15	77	0.12	840	0.087
SY035M0220A5S-1012	220	35	10X12	77	0.12	865	0.080
SY035M0220B5S-1012	220	35	10X12	77	0.12	865	0.080
SY035M0270A3F-0820	270	35	8X20	94.5	0.12	1050	0.069
SY035M0270B3F-0820	270	35	8X20	94.5	0.12	1050	0.069
SY035M0270A5F-0820	270	35	8X20	94.5	0.12	1050	0.069
SY035M0330A5S-1015	330	35	10X15	115.5	0.12	1210	0.060
SY035M0330B5S-1015	330	35	10X15	115.5	0.12	1210	0.060
SY035M0330A5S-1019	330	35	10X19.5	115.5	0.12	1040	0.062
SY035M0330B5S-1019	330	35	10X19.5	115.5	0.12	1040	0.062
SY035M0470A5S-1019	470	35	10X19.5	164.5	0.12	1400	0.046
SY035M0470B5S-1019	470	35	10X19.5	164.5	0.12	1400	0.046
SY035M0470B5S-1315	470	35	13X15	164.5	0.12	1450	0.049
SY035M0560A5S-1025	560	35	10X25	196	0.12	1650	0.042
SY035M0560B5S-1025	560	35	10X25	196	0.12	1650	0.042
SY035M0560A5S-1316	560	35	13X16	196	0.12	1490	0.049
SY035M0560B5S-1316	560	35	13X16	196	0.12	1490	0.049
SY035M0680A5S-1030	680	35	10X30	238	0.12	1910	0.031
SY035M0680B5S-1030	680	35	10X30	238	0.12	1910	0.031
SY035M0680A5S-1320	680	35	13X20	238	0.12	1900	0.035
SY035M0680B5S-1320	680	35	13X20	238	0.12	1900	0.035
SY035M0820A5S-1320	820	35	13X20	287	0.12	1900	0.035
SY035M0820B5S-1320	820	35	13X20	287	0.12	1900	0.035
SY035M1000A5S-1325	1000	35	13X25	350	0.12	2230	0.027
SY035M1000B5S-1325	1000	35	13X25	350	0.12	2230	0.027
SY035M1000B7F-1815	1000	35	18X15	350	0.12	2210	0.043
SY035M1200A5S-1330	1200	35	13X30	420	0.12	2650	0.024
SY035M1200B5S-1330	1200	35	13X30	420	0.12	2650	0.024
SY035M1200A7F-1620	1200	35	16X20	420	0.12	2530	0.027
SY035M1200B7F-1620	1200	35	16X20	420	0.12	2530	0.027

Table 1-10 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μF)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (μA)	Dissipation Factor (Tan δ)	Ripple 100KHz (mA)	Impedance 100KHz (ohm)
SY035M1500A5S-1335	1500	35	13X35	525	0.12	2880	0.020
SY035M1500B5S-1325	1500	35	13X35	525	0.12	2880	0.020
SY035M1800A5S-1340	1800	35	13X40	630	0.12	3350	0.017
SY035M1800B5S-1340	1800	35	13X40	630	0.12	3350	0.017
SY035M1800A7F-1625	1800	35	16X25	630	0.12	2930	0.021
SY035M1800B7F-1625	1800	35	16X25	630	0.12	2930	0.021
SY035M1800B7F-1820	1800	35	18X20	630	0.12	2860	0.026
SY035M2200A7F-1625	2200	35	16X25	770	0.14	2900	0.021
SY035M2200B7F-1625	2200	35	16X25	770	0.14	2900	0.021
SY035M2200B7F-1632	2200	35	16X32	770	0.14	3450	0.017
SY035M2200B7F-1820	2200	35	18X20	770	0.14	2800	0.019
SY035M2200B7F-1825	2200	35	18X25	770	0.14	3410	0.019
SY035M2700B7F-1636	2700	35	16X36	945	0.14	3610	0.015
SY035M2700B7F-1832	2700	35	18X32	945	0.14	4170	0.015
SY035M3300B7F-1640	3300	35	16X40	1155	0.16	4080	0.013
SY035M3300B7F-1836	3300	35	18X36	1155	0.16	4220	0.014
SY035M3900B7F-1840	3900	35	18X40	1365	0.16	4280	0.012
SY050M4R70A2F-0511	4.7	50	5X11	3.0	0.10	100	2.000
SY050M4R70B2F-0511	4.7	50	5X11	3.0	0.10	100	2.000
SY050M4R70AZF-0511	4.7	50	5X11	3.0	0.10	100	2.000
SY050M4R70A5F-0511	4.7	50	5X11	3.0	0.10	100	2.000
SY050M0010A2F-0511	10	50	5X11	5.0	0.10	135	1.200
SY050M0010B2F-0511	10	50	5X11	5.0	0.10	135	1.200
SY050M0010AZF-0511	10	50	5X11	5.0	0.10	135	1.200
SY050M0010A5F-0511	10	50	5X11	5.0	0.10	135	1.200
SY050M0022A2F-0511	22	50	5X11	11	0.10	180	0.700
SY050M0022B2F-0511	22	50	5X11	11	0.10	180	0.700
SY050M0022AZF-0511	22	50	5X11	11	0.10	180	0.700
SY050M0022A5F-0511	22	50	5X11	11	0.10	180	0.700
SY050M0022A2F-0511	22	50	5X11	11	0.10	180	0.700
SY050M0022B2F-0511	22	50	5X11	11	0.10	180	0.700
SY050M0047AZF-0611	47	50	6.3X11	23.5	0.10	300	0.520
SY050M0047BZF-0611	47	50	6.3X11	23.5	0.10	300	0.520
SY050M0047A5F-0611	47	50	6.3X11	23.5	0.10	300	0.520
SY050M0056AZF-0611	56	50	6.3X11	28	0.10	295	0.300
SY050M0056BZF-0611	56	50	6.3X11	28	0.10	295	0.300
SY050M0056A5F-0611	56	50	6.3X11	28	0.10	295	0.300

Table 1-11 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μ F)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (μ A)	Dissipation Factor (Tan δ)	Ripple 100KHz (mA)	Impedance 100KHz (ohm)
SY050M0100A3F-0811	100	50	8X11	50	0.10	555	0.170
SY050M0100B3F-0811	100	50	8X11	50	0.10	555	0.170
SY050M0100A5F-0811	100	50	8X11	50	0.10	555	0.170
SY050M0120A3F-0815	120	50	8X15	60	0.10	730	0.120
SY050M0120B3F-0815	120	50	8X15	60	0.10	730	0.120
SY050M0120A5F-0815	120	50	8X15	60	0.10	730	0.120
SY050M0150A5S-1012	150	50	10X12	75	0.10	760	0.120
SY050M0150B5S-1012	150	50	10X12	75	0.10	760	0.120
SY050M0180A3F-0820	180	50	8X20	90	0.10	910	0.091
SY050M0180B3F-0820	180	50	8X20	90	0.10	910	0.091
SY050M0180A5F-0820	180	50	8X20	90	0.10	910	0.091
SY050M0220A5S-1015	220	50	10X15	110	0.10	1050	0.084
SY050M0220B5S-1015	220	50	10X15	110	0.10	1015	0.084
SY050M0270A5S-1019	270	50	10X19.5	135	0.10	1220	0.060
SY050M0270B5S-1019	270	50	10X19.5	135	0.10	1220	0.060
SY050M0270A5S-1315	270	50	13X15	135	0.10	1260	0.061
SY050M0270B5S-1315	270	50	13X15	135	0.10	1260	0.061
SY050M0330A5S-1019	330	50	10X19.5	165	0.10	1400	0.058
SY050M0330B5S-1019	330	50	10X19.5	165	0.10	1400	0.058
SY050M0330A5S-1025	330	50	10X25	165	0.10	1440	0.055
SY050M0330B5S-1025	330	50	10X25	165	0.10	1440	0.055
SY050M0470A5S-1030	470	50	10X30	235	0.10	1690	0.043
SY050M0470B5S-1030	470	50	10X30	235	0.10	1690	0.043
SY050M0470A5S-1320	470	50	13X20	235	0.10	1660	0.045
SY050M0470B5S-1320	470	50	13X20	235	0.10	1660	0.045
SY050M0470A7F-1615	470	50	16X15	235	0.10	1690	0.055
SY050M0470B7F-1615	470	50	16X15	235	0.10	1690	0.055
SY050M0470A5S-1325	560	50	13X25	280	0.10	1690	0.034
SY050M0560B5S-1325	560	50	13X25	280	0.10	1950	0.034
SY050M0560B7F-1815	560	50	18X15	280	0.10	1930	0.054
SY050M0680A5S-1330	680	50	13X30	340	0.10	2310	0.030
SY050M0680B5S-1330	680	50	13X30	340	0.10	2310	0.030
SY050M0820A5S-1335	820	50	13X35	410	0.10	2510	0.025
SY050M0820B5S-1335	820	50	13X35	410	0.10	2510	0.025
SY050M0820A7F-1620	820	50	16X20	410	0.10	2210	0.034
SY050M0820B7F-1620	820	50	16X20	410	0.10	2210	0.034
SY050M1000B5S-1340	1000	50	13X40	500	0.10	2920	0.021

Table 1-12 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μF)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (μA)	Dissipation Factor (Tan δ)	Ripple 100KHz (mA)	Impedance 100KHz (ohm)
SY050M1000A7F-1625	1000	50	16X25	500	0.10	2555	0.025
SY050M1000B7F-1625	1000	50	16X25	500	0.10	2555	0.025
SY050M1000A7F-1625	1000	50	16X25	500	0.10	2555	0.025
SY050M1000B7F-1820	1000	50	18X20	500	0.10	2490	0.036
SY050M1200B7F-1632	1200	50	16X32	600	0.10	3010	0.022
SY050M1200B7F-1825	1200	50	18X25	600	0.10	2740	0.026
SY050M1500B7F-1636	1500	50	16X36	750	0.10	3150	0.019
SY050M1800B7F-1640	1800	50	16X40	900	0.10	3710	0.016
SY050M1800B7F-1832	1800	50	18X32	900	0.10	3635	0.021
SY050M2200B7F-1836	2200	50	18X36	1100	0.12	3680	0.017
SY050M2700B7F-1840	2700	50	18X40	1350	0.12	3800	0.014
SY063M0015A2F-0511	15	63	5X11	9.45	0.09	55	2.300
SY063M0015B2F-0511	15	63	5X11	9.45	0.09	55	2.300
SY063M0015AZF-0511	15	63	5X11	9.45	0.09	55	2.300
SY063M0015A5F-0511	15	63	5X11	9.45	0.09	55	2.300
SY063M0033AZF-0611	33	63	6.3X11	20.79	0.09	115	1.200
SY063M0033BZF-0611	33	63	6.3X11	20.79	0.09	115	1.200
SY063M0033A5F-0611	33	63	6.3X11	20.79	0.09	115	1.200
SY063M0056A3F-0812	56	63	8X12	35.28	0.09	232	0.630
SY063M0056B3F-0812	56	63	8X12	35.28	0.09	232	0.630
SY063M0056A5F-0812	56	63	8X12	35.28	0.09	232	0.630
SY063M0082A3F-0815	82	63	8X15	51.66	0.09	300	0.450
SY063M0082B3F-0815	82	63	8X15	51.66	0.09	300	0.450
SY063M0082A5F-0815	82	63	8X15	51.66	0.09	300	0.450
SY063M0082A5S-1012	82	63	10X12	51.66	0.09	288	0.430
SY063M0082B5S-1012	82	63	10X12	51.66	0.09	288	0.430
SY063M0100A5S-1015	100	63	10X15	63	0.09	323	0.440
SY063M0100B5S-1015	100	63	10X15	63	0.09	323	0.440
SY063M0120A3F-0820	120	63	8X20	75.6	0.09	362	0.330
SY063M0120B3F-0820	120	63	8X20	75.6	0.09	362	0.330
SY063M0120A5F-0820	120	63	8X20	75.6	0.09	362	0.330
SY063M0120A5S-1015	120	63	10X15	75.6	0.09	357	0.310
SY063M0120B5S-1015	120	63	10X15	75.6	0.09	357	0.310
SY063M0180A5S-1019	180	63	10X19.5	113.4	0.09	466	0.210
SY063M0180B5S-1019	180	63	10X19.5	113.4	0.09	466	0.210
SY063M0220A5S-1025	220	63	10X25	138.6	0.09	531	0.200
SY063M0220B5S-1025	220	63	10X25	138.6	0.09	531	0.200

Table 1-13 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μ F)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY063M0270A5S-1030	270	63	10X30	170.1	0.09	663	0.150
SY063M0270B5S-1030	270	63	10X30	170.1	0.09	663	0.150
SY063M0270A5S-1320	270	63	13X20	170.1	0.09	690	0.160
SY063M0270B5S-1320	270	63	13X20	170.1	0.09	690	0.160
SY063M0330A5S-1325	330	63	13X25	207.9	0.09	784	0.120
SY063M0330B5S-1325	330	63	13X25	207.9	0.09	784	0.120
SY063M0390B7F-1816	390	63	18X16	245.7	0.09	920	0.120
SY063M0470A5S-1330	470	63	13X30	296.1	0.09	905	0.100
SY063M0470B5S-1330	470	63	13X30	296.1	0.09	905	0.100
SY063M0470A7F-1620	470	63	16X20	296.1	0.09	1040	0.091
SY063M0470B7F-1620	470	63	16X20	296.1	0.09	1040	0.091
SY063M0560A5S-1335	560	63	13X35	352.8	0.09	1050	0.083
SY063M0560B5S-1335	560	63	13X35	352.8	0.09	1050	0.083
SY063M0560B7F-1625	560	63	16X25	352.8	0.09	1250	0.073
SY063M0560A7F-1625	560	63	16X25	352.8	0.09	1250	0.073
SY063M0680A5S-1340	680	63	13X40	428.4	0.09	1180	0.071
SY063M0680B5S-1340	680	63	13X40	428.4	0.09	1180	0.071
SY063M0680B7F-1820	680	63	18X20	428.4	0.09	1240	0.080
SY063M0820B7F-1632	820	63	16X32	516.6	0.09	1570	0.054
SY063M0820B7F-1825	820	63	18X25	516.6	0.09	1490	0.057
SY063M1000B7F-1636	1000	63	16X36	630	0.09	1790	0.045
SY063M1000B7F-1832	1000	63	18X32	630	0.09	1630	0.047
SY063M1200B7F-1640	1200	63	16X40	756	0.09	2020	0.040
SY100M6R80A5F-0511	6.8	100	5X11	6.8	0.08	55	2.300
SY100M6R80B2F-0511	6.8	100	5X11	6.8	0.08	55	2.300
SY100M6R80A3F-0511	6.8	100	5X11	6.8	0.08	55	2.300
SY100M6R80A5F-0511	6.8	100	5X11	6.8	0.08	55	2.300
SY100M0015AZF-0611	15	100	6.3X11	15	0.08	115	1.200
SY100M0015BZF-0611	15	100	6.3X11	15	0.08	115	1.200
SY100M0015A5F-0611	15	100	6.3X11	15	0.08	115	1.200
SY100M0027A3F-0812	27	100	8X12	27	0.08	232	0.630
SY100M0027B3F-0812	27	100	8X12	27	0.08	232	0.630
SY100M0027A5F-0812	27	100	8X12	27	0.08	232	0.630
SY100M0039A3F-0815	39	100	8X15	39	0.08	300	0.450
SY100M0039B3F-0815	39	100	8X15	39	0.08	300	0.450
SY100M0039A5F-0815	39	100	8X15	39	0.08	300	0.450
SY100M0047A5S-1012	47	100	10X12	47	0.08	288	0.430

Table 1-14 SY Type , Standard Rating And Catalog Number

Load Life:3000 ~6000Hrs at 105°C

Catalog Number	Capacitance (μ F)	Rated Voltage (V.DC)	Size D X L (mm)	Leakage Current (Ma)	Dissipation Factor (Tan δ)	Ripple 100KHz (Ma)	Impedance 100KHz (ohm)
SY100M0047B5S-1012	47	100	10X12	47	0.08	288	0.430
SY100M0056A3F-0820	56	100	8X20	56	0.08	362	0.330
SY100M0056B3F-0820	56	100	8X20	56	0.08	362	0.330
SY100M0056A5F-0820	56	100	8X20	56	0.08	362	0.330
SY100M0068A5S-1015	68	100	10X15	68	0.08	357	0.310
SY100M0068B5S-1015	68	100	10X15	68	0.08	357	0.310
SY100M0082A5S-1019	82	100	10X19.5	82	0.08	466	0.210
SY100M0082B5S-1019	82	100	10X19.5	82	0.08	466	0.210
SY100M0100A5S-1025	100	100	10X25	100	0.08	531	0.200
SY100M0100B5S-1025	100	100	10X25	100	0.08	531	0.200
SY100M0120A5S-1030	120	100	10X30	120	0.08	663	0.150
SY100M0120B5S-1030	120	100	10X30	120	0.08	663	0.150
SY100M0120A5S-1320	120	100	13X20	120	0.08	690	0.160
SY100M0120B5S-1320	120	100	13X20	120	0.08	690	0.160
SY100M0180A5S-1325	180	100	13X25	180	0.08	784	0.120
SY100M0180B5S-1325	180	100	13X25	180	0.08	784	0.120
SY100M0180B7F-1816	180	100	18X16	180	0.08	920	0.120
SY100M0220A5S-1330	220	100	13X30	220	0.08	905	0.100
SY100M0220A5S-1330	220	100	13X30	220	0.08	905	0.100
SY100M0220B7F-1620	220	100	16X20	220	0.08	1040	0.091
SY100M0220A7F-1620	220	100	16X20	220	0.08	1040	0.091
SY100M0270B5S-1335	220	100	13X35	270	0.08	1050	0.083
SY100M0270A5S-1335	270	100	13X35	270	0.08	1050	0.083
SY100M0270B7F-1625	270	100	16X25	270	0.08	1250	0.073
SY100M0270A7F-1625	270	100	16X25	270	0.08	1250	0.073
SY100M0330B5S-1340	330	100	13X40	330	0.08	1180	0.071
SY100M0330A5S-1340	330	100	13X40	330	0.08	1180	0.071
SY100M0330B7F-1820	330	100	18X20	330	0.08	1240	0.080
SY100M0390B7F-1632	390	100	16X32	390	0.08	1570	0.054
SY100M0390B7F-1825	390	100	18X25	390	0.08	1490	0.057
SY100M0470B7F-1632	470	100	16X32	470	0.08	1390	0.057
SY100M0470B7F-1636	470	100	16X36	470	0.08	1790	0.045
SY100M0470B7F-1825	470	100	18X25	470	0.08	1390	0.057
SY100M0470B7F-1832	470	100	18X32	470	0.08	1630	0.047
SY100M0560B7F-1640	560	100	16X40	560	0.08	2020	0.040
SY100M0680B7F-1836	680	100	18X36	680	0.08	1790	0.040
SY100M0820B7F-1840	820	100	18X40	820	0.08	2330	0.036

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