

RS series

Ultra-Low ESR & High Ripple Current

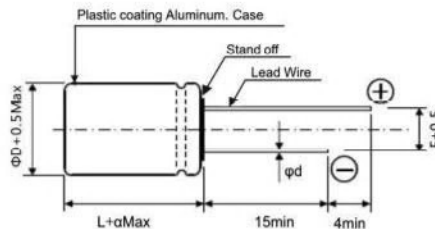
- Ultra-Low ESR, High ripple current
- Load life of 2000 hours at 105°C
- Compliant to the RoHS directive (2011/65/EU)
- Suitable for DC-DC Converter, Voltage Regulators, Motherboard, Server Board, VGA

具有低ESR和大纹波电流，产品满足RoHS指令(2011/65/EU)，适用于DC-DC转换器、电压调节器、计算机主板和显卡等。

» Specifications

Items	Characteristics	
Operating Temp. Range	-55°C ~ +105°C	
Capacitance Range	100 ~ 2700 uF	
Capacitance Tolerance	M: ± 20%	
Rated Voltage Range	16V ~ 25V DC	
Dissipation Factor (at 120Hz, 20°C)	Not to exceed the value specified Not to exceed the value specified (after 2 minutes)	
Leakage Current	Not to exceed the value specified	
CSR (100K~300KHz)	Capacitance Change	Within ± 20% of the value before test
	Leakage current	Not to exceed the value specified
Endurance 105°C, 2000h, at rated voltage	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified
	Capacitance Change	Within ± 20% of the value before test
Moisture Resistance Stored at 60°C, Rh90 ~ 95%, 1000h	Leakage Current	Not to exceed the value specified
	ESR	Not to exceed 150% of the value specified
	Dissipation Factor	Not to exceed 150% of the value specified

» Dimensions



Unit: mm

$\phi D \times L$	ΦD +0.5max.	α	F ± 0.5	Φd ± 0.05
6.3 × 8	6.3	1.0	2.5	0.5
6.3 × 9	6.3	1.0	2.5	0.5
6.3 × 11	6.3	1.0	2.5	0.5
6.3 × 12	6.3	1.0	2.5	0.5
6.3 × 13	6.3	1.0	2.5	0.5
6.3 × 15	6.3	1.0	2.5	0.5
8 × 8	8.0	1.0	3.5	0.6
8 × 11.5	8.0	1.0	3.5	0.6

$\phi D \times L$	ΦD +0.5max.	α	F ± 0.5	Φd ± 0.05
8 × 14	8.0	1.0	3.5	0.6
8 × 16	8.0	1.5	3.5	0.6
8 × 20	8.0	1.5	3.5	0.6
10 × 10	10.0	1.0	5.0	0.6
10 × 12.5	10.0	1.0	5.0	0.6
10 × 14	10.0	1.0	5.0	0.6
10 × 16	10.0	1.5	5.0	0.6
10 × 20	10.0	1.5	5.0	0.6

» Capacitance List

W.V (S.V)	16 (18.4)	20 (23)	25 (28.7)
SIZE			
6.3 × 8	220 ~ 390 μ F	180 ~ 270 μ F	100 ~ 220 μ F
6.3 × 9	270 ~ 470 μ F	220 ~ 330 μ F	180 ~ 270 μ F
6.3 × 11	330 ~ 560 μ F	270 ~ 390 μ F	220 ~ 330 μ F
6.3 × 12	390 ~ 680 μ F	330 ~ 470 μ F	270 ~ 390 μ F
6.3 × 13	390 ~ 680 μ F	330 ~ 470 μ F	270 ~ 470 μ F
6.3 × 15	470 ~ 820 μ F	390 ~ 560 μ F	330 ~ 470 μ F
8 × 8	270 ~ 680 μ F	220 ~ 470 μ F	180 ~ 390 μ F
8 × 11.5	390 ~ 820 μ F	330 ~ 680 μ F	270 ~ 560 μ F
8 × 14	560 ~ 1000 μ F	470 ~ 820 μ F	390 ~ 680 μ F
8 × 16	680 ~ 1200 μ F	560 ~ 1000 μ F	470 ~ 820 μ F
8 × 20	820 ~ 1500 μ F	680 ~ 1200 μ F	560 ~ 1000 μ F
10 × 10	470 ~ 1000 μ F	390 ~ 680 μ F	330 ~ 560 μ F
10 × 12.5	680 ~ 1200 μ F	560 ~ 1000 μ F	470 ~ 820 μ F
10 × 14	820 ~ 1500 μ F	680 ~ 1200 μ F	560 ~ 1000 μ F
10 × 16	1000 ~ 1800 μ F	820 ~ 1500 μ F	680 ~ 1200 μ F
10 × 20	1200 ~ 2700 μ F	1000 ~ 1800 μ F	820 ~ 1800 μ F

» Characteristics List

W.V. (V)	Capacitance (μ F)	L.C. (μ A, 2min)	tg δ (120Hz, 20°C)	ESR ($m\Omega$, 100kHz)	Rated Ripple Current (mA, r. m. s)	Size Φ D × L (mm)	Part Number
16	270	864	0.10	18	2900	6.3 × 8	RS271M016E080□□
	330	1056	0.10	15	3300	6.3 × 9	RS331M016E090□□
	560	1792	0.10	15	3500	6.3 × 11	RS561M016E110□□
	680	2176	0.10	12	4100	6.3 × 12	RS681M016E120□□
	680	2176	0.10	12	4100	6.3 × 13	RS681M016E130□□
	820	2624	0.10	12	5300	6.3 × 15	RS821M016E150□□
	680	2176	0.10	16	4000	8 × 8	RS681M016F080□□
	820	2624	0.10	15	4800	8 × 11.5	RS821M016F115□□
	1000	3000	0.10	12	5100	8 × 14	RS102M016F140□□
	1200	3000	0.10	11	5400	8 × 16	HS122M016F160□□
	1500	3000	0.10	11	6100	8 × 20	RS152M016F200□□
	820	2624	0.10	15	4500	10 × 10	RS821M016G100□□
	1000	3000	0.10	12	5100	10 × 12.5	RS102M016G125□□
	1200	3000	0.10	12	5500	10 × 14	RS122M016G140□□
	1500	3000	0.10	11	5800	10 × 16	RS152M016G160□□
2200	3000	0.10	11	6400	10 × 20	RS222M016G200□□	
20	220	880	0.10	20	2500	6.3 × 8	RS221M020E080□□
	330	1320	0.10	18	2600	6.3 × 9	RS331M020E090□□
	390	1560	0.10	15	2900	6.3 × 11	RS391M020E110□□
	470	1880	0.10	13	3100	6.3 × 12	RS471M020E120□□
	470	1880	0.10	12	3300	6.3 × 13	RS471M020E130□□

W.V. (V)	Capacitance (μ F)	L.C. (μ A, 2min)	tg δ (120Hz, 20°C)	ESR (m Ω , 100kHz)	Rated Ripple Current (mA, r. m. s)	Size Φ D x L (mm)	Part Number
20	560	2240	0.10	12	4200	6.3 x 15	RS561M020E150□□
	470	1880	0.10	15	3800	8 x 8	RS471M020F080□□
	680	2720	0.10	15	4500	8 x 11.5	RS681M020F115□□
	820	3000	0.10	12	4800	8 x 14	RS821M020F140□□
	1000	3000	0.10	11	5100	8 x 16	RS102M020F160□□
	1200	3000	0.10	11	5800	8 x 20	RS122M020F200□□
	680	2720	0.10	15	4300	10 x 10	RS681M020G100□□
	1000	3000	0.10	12	4800	10 x 12.5	RS102M020G125□□
	1200	3000	0.10	12	5300	10 x 14	RS122M020G140□□
	1500	3000	0.10	11	5500	10 x 16	RS152M020G160□□
	1800	3000	0.10	11	6100	10 x 20	RS182M020G200□□
25	100	500	0.10	25	2400	6.3 x 8	RS101M025E080□□
	220	1100	0.10	20	2500	6.3 x 9	RS221M025E090□□
	330	1650	0.10	16	2800	6.3 x 11	RS331M025E110□□
	390	1950	0.10	15	3000	6.3 x 12	RS391M025E120□□
	470	2350	0.10	15	3200	6.3 x 13	RS471M025E130□□
	470	2350	0.10	12	3900	6.3 x 15	RS471M025E150□□
	390	1950	0.10	18	3400	8 x 8	RS391M025F080□□
	470	2350	0.10	15	4100	8 x 11.5	RS471M025F115□□
	680	3000	0.10	12	4700	8 x 14	RS681M025F140□□
	820	3000	0.10	12	5000	8 x 16	RS821M025F160□□
	1000	3000	0.10	12	5700	8 x 20	RS102M025F200□□
	470	2350	0.10	16	3900	10 x 10	RS471M025G100□□
	680	3000	0.10	15	4500	10 x 12.5	RS681M025G125□□
	1000	3000	0.10	12	5200	10 x 14	RS102M025G140□□
	1200	3000	0.10	12	5400	10 x 16	RS122M025G160□□
1800	3000	0.10	12	5900	10 x 20	RS182M025G200□□	

➤➤ Frequency Coefficient for Ripple Current

Frequency	120Hz ≤ freq. < 1KHz	1KHz ≤ freq. < 10KHz	10KHz ≤ freq. < 100KHz	100KHz ≤ freq. < 300KHz
Coefficient	0.05	0.3	0.7	1