PSB Series

- Ultra Low ESR, High ripple current, High reliability, long life
- Rated voltage range : 2.5 to 16 Vdc
- 2000 hours at 105℃
- Suitable for DC – DC converters, voltage regulators and decouping applications for computer motherboards

■ SPECIFICATIONS

Items	Characteristics
Operating Temperature Range	－55 ~ ＋105℃
Capacitance Tolerance	± 20 % (20℃、120Hz)
Dissipation Factor (tanδ)	0.12 (max.) (20℃、120Hz)
Surge Voltage	Rated voltage × 1.15V
Leakage Current	I = 0.2CV . After 2 minutes application of rated voltage. ≦6.3ψ I = 0.5CV I= Leakage Current (μA) C= Nominal Capacitance (μF) V= Rated Voltage (If the leakage current is not stabilized,apply rated voltage for 120 minutes at 105℃)
Equivalent series resistance (ESR)	Please see the attached standard products list.
High temperature & Low temperature Characteristic	Z(-55℃)/Z(20℃) 0.75 ~ 1.25 Z(+105℃)/Z(20℃) 0.75 ~ 1.25 (100KHZ) (20℃)
Durability	After applying the rate voltage for 2000 hours at 105℃ and then being stabilized at 20℃, capacitors shall meet the following limits. Capacitance Change: Within ±20% of the initial value. Dissipation Factor: Not more than 150% of the specified value. ESR: Not more than 150% of the specified value. Leakage Current: Not more than the specified value.
High temperature & high humidity (Constant)	After storing for 1000 hours at 60℃、90~95%R.H. Capacitance Change: Within ±20% of the initial value. Dissipation Factor: Not more than 150% of the specified value. ESR: Not more than 150% of the specified value. Leakage Current: Not more than the specified value.
Resistance to Soldering heat Flow method (260±5°C × 10s)	Capacitance Change: Within ±5% of the initial value. Dissipation Factor: Not more than the specified value. ESR: Not more than the specified value. Leakage Current: Not more than the specified value.
Surge Voltage Test	The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltage specified at 105℃ for 30 seconds through a protective resistor(R=1kΩ) and discharge for 5 minutes 30 seconds. Capacitance Change: Within ±20% of the initial value. Dissipation Factor: Not more than 150% of the specified value. ESR: Not more than 150% of the specified value. Leakage Current: Not more than the specified value.
Failure Rate	1% per 1000 hours maximum (Confidence level 60% at 105℃)

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■ STANDARD PRODUCTS

Size Code	Rated voltage V.DC	Nominal capacitance (μF)	Max. permissible ripple current (mA r.m.s) (-55 to 105℃、100KHz to 300KHz)	ESR (mΩ) Max. 20℃, 100KHz	Part No.
0605	2.5	220	2550	25	2PSB221M0605
	4	100	2500	25	4PSB101M0605
		150	2500	25	4PSB151M0605
	6.3	68	2450	25	6PSB680M0605
		82	2450	25	6PSB820M0605
		100	2450	25	6PSB101M0605
		120	2450	25	6PSB121M0605
	10	47	2300	25	10PSB470M0605
		56	2300	25	10PSB560M0605
		82	2300	25	10PSB820M0605
	16	39	1620	50	16PSB390M0605
0809	2.5	560	3100	23	2PSB561M0809
	4	220	3050	23	4PSB221M0809
		330	3050	23	4PSB331M0809
	6.3	150	3050	23	6PSB151M0809
		220	3050	23	6PSB221M0809
	10	120	2850	23	10PSB121M0809
		150	2850	23	10PSB151M0809
	16	82	2200	40	16PSB820M0809
1010	2.5	1000	4300	20	2PSB102M1010
	4	470	4200	20	4PSB471M1010
		680	4200	20	4PSB681M1010
	6.3	330	3800	20	6PSB331M1010
		470	3800	20	6PSB471M1010
	10	270	3500	20	10PSB271M1010
		330	3500	20	10PSB331M1010
	16	150	3100	30	16PSB151M1010
		220	3100	30	16PSB221M1010
0812	2.5	680	4800	11	2PSB681M0812
		820	4800	11	2PSB821M0812
		1000	4800	11	2PSB102M0812
	4	560	4800	11	4PSB561M0812
	6.3	470	4800	11	6PSB471M0812
	10	390	4800	11	10PSB391M0812
		270	4500	11	10PSB271M0812
		330	4500	11	10PSB331M0812
	16	180	3700	20	16PSB181M0812
		220	3700	20	16PSB221M0812
1012	2.5	1500	5600	10	2PSB152M1012
	4	820	5600	10	4PSB821M1012
		1200	5600	10	4PSB122M1012
	6.3	680	5600	10	6PSB681M1012
		820	5600	10	6PSB821M1012
	10	470	5400	10	10PSB471M1012
		560	5400	10	10PSB561M1012
	16	330	4800	16	16PSB331M1012