



PVR Series

- Ultra Low ESR, High ripple current, High reliability, long life
- Rated voltage range : 2.5 to 10 Vdc
- 2000 hours at 105°C
- Suitable for DC – DC converters, voltage regulators and decoupling applications for computer motherboards



SPECIFICATIONS

Items	Characteristics								
Operating Temperature Range	-55 ~ +105°C								
Capacitance Tolerance	± 20 % (20°C、120Hz)								
Dissipation Factor (tanδ)	0.12 (max.) (20°C、120Hz)								
Surge Voltage	Rated voltage × 1.15V								
Leakage Current	I = 0.2CV . After 2 minutes application of rated voltage. ≤ 6.3 φ 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								
Equivalent series resistance (ESR)	Please see the attached standard products list								
High temperature & Low temperature Characteristic	<table border="1"> <tr> <td>Z(-55°C)/Z(20°C)</td> <td>0.75 ~ 1.25</td> <td>(100KHZ)</td> </tr> <tr> <td>Z(+105°C)/Z(20°C)</td> <td>0.75 ~ 1.25</td> <td>(20°C)</td> </tr> </table>	Z(-55°C)/Z(20°C)	0.75 ~ 1.25	(100KHZ)	Z(+105°C)/Z(20°C)	0.75 ~ 1.25	(20°C)		
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Durability	<p>After applying the rate voltage for 2000 hours at 105°C and then being stabilized at 20°C, capacitors shall meet the following limits.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>ESR</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>	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.
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High temperature & high humidity (Constant)	<p>After storing for 1000 hours at 60°C、90~95%R.H.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>ESR</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>	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.
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Resistance to Soldering heat Flow method (260±5°C × 10s) Test method : Please see the page 8 (No. 3)	<table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±5% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than the specified value.</td> </tr> <tr> <td>ESR</td> <td>Not more than the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>	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.
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Surge Voltage Test	<p>The capacitors shall be subjected to 1000 cycles each consisting of charge with the surge voltage specified at 105°C for 30 seconds through a protective resistor(R=1kΩ) and discharge for 5 minutes 30 seconds.</p> <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>ESR</td> <td>Not more than 150% of the specified value.</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> </table>	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.
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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°C)								



PVR Series

STANDARD PRODUCTS

Size Code	Rated voltage V.DC	Nominal capacitance (μF)	Max. permissible ripple current (mA _{rms})	ESR (mΩ _{Max.})	Part No.	
			(-55to105°C、100KHzto300KHz)	20°C, 100KHz		
0605	2.5	220	2550	25	2PVR221M0605	
		100	2500	25	4PVR101M0605	
	4	150	2500	25	4PVR151M0605	
		68	2450	25	6PVR680M0605	
		82	2450	25	6PVR820M0605	
		100	2450	25	6PVR101M0605	
	6.3	120	2450	25	6PVR121M0605	
		47	2300	25	10PVR470M0605	
		56	2300	25	10PVR560M0605	
		82	2300	25	10PVR820M0605	
10		47	2300	25	10PVR470M0605	
		56	2300	25	10PVR560M0605	
	82	2300	25	10PVR820M0605		
	100	2450	25	6PVR101M0605		
0809	2.5	560	3100	23	2PVR561M0809	
		220	3050	23	4PVR221M0809	
	4	330	3050	23	4PVR331M0809	
		150	3050	23	6PVR151M0809	
	6.3	220	3050	23	6PVR221M0809	
		120	2850	23	10PVR121M0809	
	10	150	2850	23	10PVR151M0809	
		220	3050	23	6PVR221M0809	
	1010	2.5	1000	4300	20	2PVR102M1010
			470	4200	20	4PVR471M1010
4		680	4200	20	4PVR681M1010	
		330	3800	20	6PVR331M1010	
6.3		470	3800	20	6PVR471M1010	
		270	3500	20	10PVR271M1010	
10		330	3500	20	10PVR331M1010	
		680	4800	11	2PVR681M0812	
0812		2.5	820	4800	11	2PVR821M0812
			1000	4800	11	2PVR102M0812
	560		4800	11	4PVR561M0812	
	4	470	4800	11	6PVR471M0812	
		390	4800	11	10PVR391M0812	
	6.3	270	4500	11	10PVR271M0812	
		330	4500	11	10PVR331M0812	
		1500	5600	10	2PVR152M1012	
	1012	2.5	820	5600	10	4PVR821M1012
			1200	5600	10	4PVR122M1012
680			5600	10	6PVR681M1012	
4		820	5600	10	6PVR821M1012	
		470	5400	10	10PVR471M1012	
6.3		560	5400	10	10PVR561M1012	
		1500	5600	10	2PVR152M1012	