



Conductive Polymer Aluminum Solid Capacitor DR Cap

VS series

■ Features

- Low ESR at a high frequency range
- High ripple current capability
- Guaranteed at 105°C for 2000 hrs

■ Applications

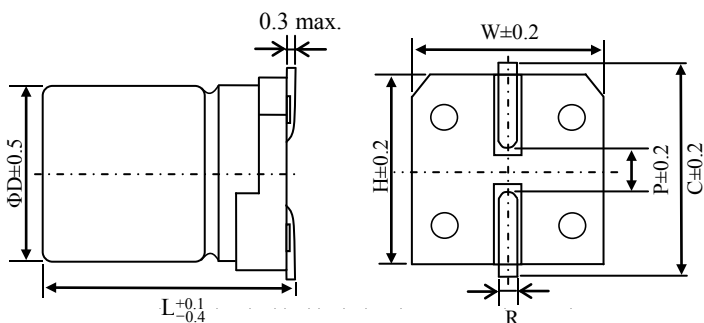
- SPS, D/D Converter, D/A Inverter
- MB, VGA, Navigator, Server
- PDP/LCD TV, LCD Monitor
- RoHS compliance and lead-free



Specifications

Items	Characteristics								
Category Temperature Range	-55 ~ +105°C								
Rated Working Voltage Range	2.5 ~ 16Vdc								
Nominal Capacitance Range	10 ~ 1500 μF								
Capacitance Tolerance	±20% (M) (120Hz, 20°C)								
DC Leakage Current	Value in characteristics table (After rated voltage applied for 2 minutes)								
Dissipation Factor (tanδ)	Value in characteristics table								
ESR (100 K~300 KHz, 20°C)	Value in characteristics table								
Temperature Characteristic Impedance Ratio at 100 KHz	<table border="1"> <tr> <td>-55°C</td> <td>Z / Z_{20°C}</td> <td>0.75~1.25</td> </tr> <tr> <td>+105°C</td> <td>Z / Z_{20°C}</td> <td>0.75~1.25</td> </tr> </table>	-55°C	Z / Z _{20°C}	0.75~1.25	+105°C	Z / Z _{20°C}	0.75~1.25		
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+105°C	Z / Z _{20°C}	0.75~1.25							
Load Life (After 105°C, 2000 hrs, rated voltage applied)	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial measured value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 150% of the specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Less than the specified value</td> </tr> </table>	Capacitance change	Within ±20% of the initial measured value	Dissipation Factor	Less than 150% of the specified value	ESR	Less than 150% of the specified value	Leakage Current	Less than the specified value
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Dissipation Factor	Less than 150% of the specified value								
ESR	Less than 150% of the specified value								
Leakage Current	Less than the specified value								
Moisture Resistance (After 60°C, 90~95%RH, 1000 hrs, no voltage)	<table border="1"> <tr> <td>Capacitance change</td> <td>Within ±20% of the initial measured value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Less than 150% of the specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of the specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Less than the specified value</td> </tr> </table> <p>* Leakage Current should be tested after voltage treatment.</p>	Capacitance change	Within ±20% of the initial measured value	Dissipation Factor	Less than 150% of the specified value	ESR	Less than 150% of the specified value	Leakage Current	Less than the specified value
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Dissipation Factor	Less than 150% of the specified value								
ESR	Less than 150% of the specified value								
Leakage Current	Less than the specified value								
Reverse Voltage Guarantee	Less than 10% of the rated voltage								

Dimensions (mm)



Size Code	φD	L	W	H	C	R	P
C04	6.3	4.5	6.6	4.5	7.3	0.5~0.8	2.1
C06	6.3	6	6.6	6.6	7.3	0.5~0.8	2.1
E07	8	7	8.3	8.3	9	0.5~0.8	3.2
E10	8	10.1	8.3	8.3	9.0	0.8~1.1	3.2
E12	8	12	8.3	8.3	9	0.8~1.1	3.2
F12	10	12.7	10.3	10.3	11	0.8~1.1	4.6



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Table VS series Characteristics List

Rated Voltage (V)	Nominal Capacitance (120Hz, 20°C) (μF)	Size Code	φ D	L	ESR (100K~300KHz) (mΩ) (max)	Max Ripple Current (100KHz, 105°C) (mA rms)	Leakage Current (μA) (max)	DF (tanδ) (120Hz, 20°C) (max)	Part Number
2.5	220	C06	6.3	6	23	2390	110	0.12	DRVS0220M2RC06
	330	04	6.3	4.2	17	2300	413	0.12	DRVS0330M2RC04
	560	C06	6.3	6	16	3500	300	0.15	DRVS0680M2RE12
	820	E12	8	12	13	5000	410	0.15	DRVS0820M2RE12
	1500	F12	10	12.7	12	5440	750	0.18	DRVS1500M2RF12
4	150	C06	6.3	6	40	1810	120	0.12	DRVS0150M04C06
	150	E07	8	7	35	2390	120	0.12	DRVS0150M04E07
	330	E07	8	7	35	2560	264	0.12	DRVS0330M04E07
	560	E12	8	12	13	4520	448	0.15	DRVS0560M04E12
	1200	F12	10	12.7	12	5440	960	0.18	DRVS1200M04F12
6.3	82	C06	6.3	6	40	1810	103	0.12	DRVS0082M6RC06
	100	C06	6.3	6	27	2400	126	0.12	DRVS0100M6RC06
	120	C06	6.3	6	27	2400	151	0.12	DRVS0120M6RC06
	120	E07	8	7	40	2220	151	0.15	DRVS0120M6RE07
	220	C04	6.3	4.2	17	1670	693	0.10	DRVS0220M6RC04
	220	C06	6.3	6	10	3900	300	0.10	DRVS0220M6RC06R
	220	C06	6.3	6	15	3160	300	0.10	DRVS0220M6RC06
	330	C06	6.3	6	15	3160	415	0.10	DRVS0330M6RC06
	470	E12	8	12	15	4210	592	0.15	DRVS0470M6RE12
	820	E12	8	12	10	4500	1033	0.15	DRVS0820M6RE12
	820	F12	10	12.7	12	5440	1033	0.15	DRVS0820M6RF12
10	120	C06	6.3	6	30	2200	500	0.12	DRVS0120M10C06
	220	C06	6.3	6	30	2200	500	0.12	DRVS0220M10C06
	330	E12	8	12	17	3950	660	0.15	DRVS0330M10E12
	470	F12	10	12.7	12	5300	940	0.15	DRVS0470M10F12
	560	F12	10	12.7	13	5230	1120	0.15	DRVS0560M10F12
16	68	C06	6.3	6	25	2240	500	0.12	DRVS0068M16C06
	100	C06	6.3	6	25	2490	500	0.12	DRVS0100M16C06
	120	E07	8	7	27	2900	262	0.12	DRVS0120M16E07
	150	E07	8	7	22	3150	480	0.12	DRVS0150M16E07
	180	E12	8	12	20	3640	576	0.12	DRVS0180M16E12
	330	E10	8	9.7	17	3890	1056	0.15	DRVS0330M16E10
	330	E12	8	12	17	3950	1056	0.15	DRVS0330M16E12
	330	F12	10	12.7	16	4720	1056	0.15	DRVS0330M16F12
	470	F12	10	12.7	12	5080	1504	0.15	DRVS0470M16F12

Frequency coefficient for ripple current

Frequency	100Hz ≤ f < 1 KHz	1 KHz ≤ f < 10 KHz	10 KHz ≤ f < 100 KHz	100 KHz ≤ f ≤ 500 KHz
Coefficient	0.05	0.3	0.7	1