

RV Series Chip type

Features

- ◆ Chip type ,Low impedance
- ◆ Chip type with Endurance of 5000 hours at +105°C
- ◆ Designed for surface mounting on high density PC board
- ◆ Applicable to automatic mounting machine using carrier tape
- ◆ Complied to the RoHS directive

DV Low Impedance Long Life **RV**



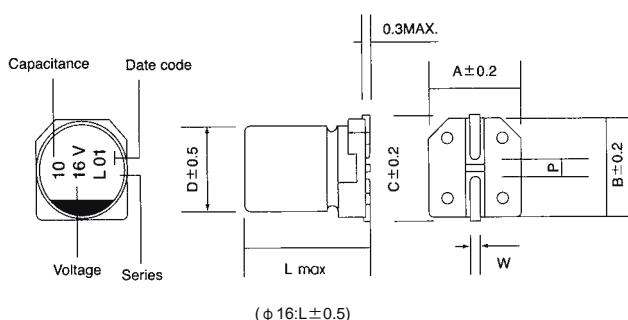
Specifications

Item	Performance Characteristics																					
Operating Temperature Range	-55 to +105°C																					
Rated Voltage Range	6.3 to 50 VDC																					
Capacitance Range	1.0 to 6800μF																					
Capacitance Tolerance	±20%(120Hz,+20°C)																					
Leakage Current (+20°C,max.)	I ≤ 0.01 CV or 3 (μA) After 2 minutes whichever is greater measured with rated working voltage applied.																					
Dissipation Factor (tan δ)	<table border="1"> <tr> <td>Working voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>D.F. (%) max.</td> <td>22</td> <td>19</td> <td>16</td> <td>14</td> <td>14</td> <td>12</td> </tr> </table>	Working voltage(VDC)	6.3	10	16	25	35	50	D.F. (%) max.	22	19	16	14	14	12							
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D.F. (%) max.	22	19	16	14	14	12																
For capacitance value > 1000 μ F, add 2 per another 1000 μ F.																						
Low Temperature Characteristics (Impedance ratio at 120hz)	Impedance ratio max																					
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	Working voltage(VDC)	6.3	10	16	25	35	50															
Z-25°C / Z+20°C	4	3	2	2	2	2																
Z-55°C / Z+20°C	8	6	4	4	3	3																
Endurance	Test condition Duration time : 5000hours (2000 hours for φ D ≤ 6.3) Ambient temperature : +105°C Applied voltage : Rated DC working voltage After test requirement at +20°C Capacitance change : Within ±30% of initial value Dissipation factor : Less than 300% of specified value Leakage curren : Less than specified value																					
Shelf Life	Test condition Duration time : 1000Hrs Ambient temperature : +105°C Applied voltage : None After test requirement at +20°C: Same limits as Endurance. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																					
Resistance to soldering heat	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them at 250°C for 30 seconds.																					
	<table border="1"> <tr> <td>Leakage current</td> <td>Less than specified value</td> </tr> <tr> <td>Capacitance change</td> <td>Within ± 10% of initial value</td> </tr> <tr> <td>tan δ</td> <td>Less than specified value</td> </tr> </table>	Leakage current	Less than specified value	Capacitance change	Within ± 10% of initial value	tan δ	Less than specified value															
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Multiplier for Ripple Current vs. Frequency

CAP(μ F)\Frequency(Hz)	60(50)	120	400	1K	10K	50K-100K
CAP ≤ 10	0.47	0.59	0.76	0.85	0.97	1.0
10 < CAP	0.52	0.65	0.80	0.89	0.97	1.0

Diagram of Dimensions:(unit:mm)



φ D	L	A	B	C	W	P
4	5.5	4.3	4.3	4.9	0.5~0.8	1.0
5	5.5	5.3	5.3	5.9	0.5~0.8	1.4
6.3	5.5	6.6	6.6	7.2	0.5~0.8	2.2
6.3	7.7	6.6	6.6	7.2	0.5~0.8	2.2
8	6.5	8.3	8.3	9.0	0.5~0.8	2.3
8	10.5	8.3	8.3	9.0	0.7~1.1	3.1
10	10.5	10.3	10.3	11.0	0.7~1.1	4.5
12.5	14	13.5	13.5	15.0	1.0~1.4	5.5
16	17	17.1	17.1	18.0	1.0~1.4	6.3

Case Size

φ DxL(mm)

WV(V) Cap(μF)	6.3			10			16			25			35			50		
	Size	Ripple	imp.	Size	Ripple	imp.	Size	Ripple	imp.	Size	Ripple	imp.	Size	Ripple	imp.	Size	Ripple	imp.
1.0																4X5.5	60	2.9
2.2																4X5.5	60	2.9
3.3																4X5.5	60	2.9
4.7													4X5.5	90	1.9	5X5.5	85	1.52
10							4X5.5	90	1.35	4X5.5	90	1.35	5X5.5	150	0.8	6.3X5.5	165	1.4
22	4X5.5	80	1.35	4X5.5	90	1.35	5X5.5	150	0.8	5X5.5	150	0.8	6.3X5.5	230	0.44	6.3X5.5	165	1.2
33	4X5.5	85	1.35	5X5.5	160	0.8	6.3X5.5	230	0.44	6.3X5.5	230	0.44	6.3X5.5	230	0.44	6.3X7.7	185	0.68
47	5X5.5	160	0.8	6.3X5.5	230	0.44	6.3X5.5	230	0.44	6.3X5.5	230	0.44	6.3X5.5	240	0.44	6.3X7.7	185	0.68
68																8X10.5	300	0.34
100	6.3X5.5	240	0.44	6.3X5.5	240	0.44	6.3X5.5	255	0.44	6.3X7.7	300	0.36	8X10.5	450	0.17	8X10.5	350	0.34
150	6.3X5.5	240	0.44	6.3X5.5	250	0.44	6.3X7.7	280	0.36	8X10.5	500	0.17	8X10.5	550	0.17	10X10.5	555	0.25
220	6.3X7.7	280	0.36	6.3X7.7	280	0.36	6.3X7.7	280	0.36	8X10.5	550	0.17	10X10.5	670	0.09	10X10.5	600	0.23
330	8X10.5	450	0.17	8X10.5	500	0.17	8X10.5	550	0.17	8X10.5	600	0.17						
470	8X10.5	500	0.17	8X10.5	550	0.17	8X10.5	600	0.17	10X10.5	670	0.09	10X10.5	670	0.09	12.5X14	1150	0.066
680	8X10.5	550	0.17	10X10.5	690	0.09	10X10.5	750	0.09				12.5X14	1150	0.066	16X17	1610	0.073
1000	8X10.5	550	0.17	10X10.5	690	0.09				12.5X14	1150	0.066	16X17	1800	0.035	16X17	1610	0.073
1500	10X10.5	690	0.09				12.5X14	1150	0.066				16X17	1800	0.035			
2200				12.5X14	1150	0.066				16X17	1800	0.035						
3300	12.5X14	1150	0.066				16X17	1800	0.035									
4700				16X17	1800	0.035												
5600																		
6800	16X17	1800	0.035															

Ripple Current(mA rms) at 105°C /100KHz

Max.Impedance(Ω) at 20°C /100KHz

SMD