



VSS Series

Features

- 4φ ~ 6.3φ, 85°C, 2,000 hours assured
- Vertical chip type miniaturized for 4.5mm height capacitor
- Designed for surface mounting on high density PC board
- RoHS Compliance

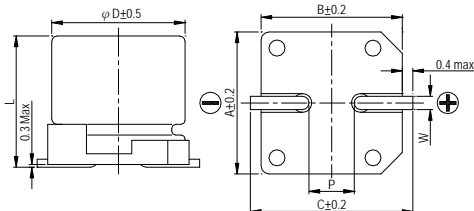


Marking color: Black

Specifications

Items	Performance																											
Category Temperature Range	-40°C ~ +85°C																											
Capacitance Tolerance	±20% (at 120Hz, 20°C)																											
Leakage Current (at 20°C)	I = 0.01CV or 3 (μA) whichever is greater (after 2 minutes) Where, C = rated capacitance in μF V = rated DC working voltage in V																											
Dissipation Factor (Tanδ at 120Hz, 20°C)	<table border="1"> <thead> <tr> <th>Rated Voltage</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Tanδ (max)</td> <td>0.50</td> <td>0.30</td> <td>0.24</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> </tr> </tbody> </table>	Rated Voltage	4	6.3	10	16	25	35	50	Tanδ (max)	0.50	0.30	0.24	0.19	0.16	0.14	0.14											
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Low Temperature Characteristics (at 120Hz)	<p>Impedance ratio shall not exceed the values given in the table below.</p> <table border="1"> <thead> <tr> <th colspan="2">Rated Voltage</th> <th>4</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Impedance</td> <td>Z(-25°C)/Z(+20°C)</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Ratio</td> <td>Z(-40°C)/Z(+20°C)</td> <td>15</td> <td>8</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated Voltage		4	6.3	10	16	25	35	50	Impedance	Z(-25°C)/Z(+20°C)	7	4	3	2	2	2	2	Ratio	Z(-40°C)/Z(+20°C)	15	8	5	4	3	3	3
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Shelf Life Test	Test time: 1,000 hours; other items are the same as those for the Endurance.																											
Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th>Frequency(Hz)</th> <th>50</th> <th>120</th> <th>1k</th> <th>10k up</th> </tr> </thead> <tbody> <tr> <td>Multiplier</td> <td>0.7</td> <td>1.0</td> <td>1.3</td> <td>1.4</td> </tr> </tbody> </table>	Frequency(Hz)	50	120	1k	10k up	Multiplier	0.7	1.0	1.3	1.4																	
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Diagram of Dimensions

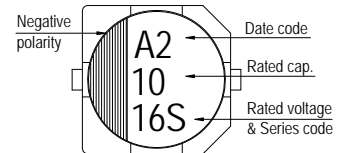


Lead Spacing and Diameter

Unit: mm

φD	L	A	B	C	W	P ± 0.2
4	4.5 ± 0.2	4.3	4.3	5.1	0.5 ~ 0.8	1.0
5	4.5 ± 0.2	5.3	5.3	5.9	0.5 ~ 0.8	1.5
6.3	4.5 ± 0.2	6.6	6.6	7.2	0.5 ~ 0.8	2.0

Marking



Dimension & Permissible Ripple Current

Dimension: φD × L(mm)

Ripple Current: mA/rms at 120 Hz, 85°C

V _{DC} μF	Contents	4V (0G)		6.3V (0J)		10V (1A)		16V (1C)		25V (1E)		35V (1V)		50V (1H)	
		φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA	φD×L	mA
0.47	R47													4×4.5	4.0
1	010													4×4.5	8.4
2.2	2R2													4×4.5	13
3.3	3R3													4×4.5	17
4.7	4R7									4×4.5	16	4×4.5	18	5×4.5	20
10	100							4×4.5	23	5×4.5	27	5×4.5	29	6.3×4.5	33
22	220			4×4.5	23	5×4.5	33	5×4.5	37	6.3×4.5	42	6.3×4.5	46		
33	330	4×4.5	28	5×4.5	37	5×4.5	41	6.3×4.5	49	6.3×4.5	52				
47	470	4×4.5	33	5×4.5	45	6.3×4.5	70	6.3×4.5	58						
100	101	5×4.5	56	6.3×4.5	70										

NSCN® | WWW.NSCN.COM.CN

总机: 025-52188228 客服: 400-888-5058

技术: 025-84712971 邮箱: TECH@NSCN.COM.CN

南京南山半导体有限公司