

VLW Series

Features

- 12.5 ϕ ~ 16 ϕ , 125°C, 2,000 hours assured
- Suitable for automotive application
- Peak acceleration: 50G / 30G
- RoHS Compliance

NSCN® | WWW.NSCN.COM.CN

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 南京南山半导体有限公司

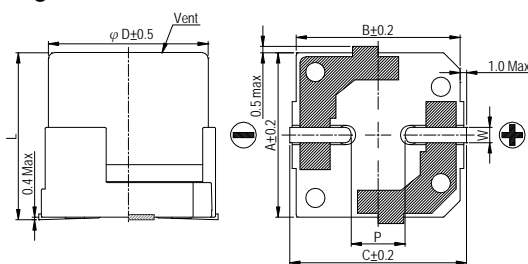


Marking color: Black

Specifications

Items	Performance																					
Category Temperature Range	-40°C ~ +125°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>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> </tr> </thead> <tbody> <tr> <td>Tanδ (max)</td> <td>0.32</td> <td>0.24</td> <td>0.21</td> <td>0.18</td> <td>0.15</td> </tr> </tbody> </table> <p>When the capacitance exceeds 1,000μF, 0.02 shall be added every 1,000μF increase.</p>	Rated Voltage	10	16	25	35	50	Tanδ (max)	0.32	0.24	0.21	0.18	0.15									
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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>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>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>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated Voltage		10	16	25	35	50	Impedance	Z(-25°C)/Z(+20°C)	3	2	2	2	2	Ratio	Z(-40°C)/Z(+20°C)	5	4	3	3	3
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Ripple Current & Frequency Multipliers	<table border="1"> <thead> <tr> <th rowspan="2">Cap.(μF)</th> <th colspan="4">Frequency(Hz)</th> </tr> <tr> <th>50, 60</th> <th>120</th> <th>1k</th> <th>10k up</th> </tr> </thead> <tbody> <tr> <td>Under 330</td> <td>0.80</td> <td>1.0</td> <td>1.25</td> <td>1.40</td> </tr> <tr> <td>330 < C ≤ 2,200</td> <td>0.85</td> <td>1.0</td> <td>1.20</td> <td>1.30</td> </tr> </tbody> </table>	Cap.(μF)	Frequency(Hz)				50, 60	120	1k	10k up	Under 330	0.80	1.0	1.25	1.40	330 < C ≤ 2,200	0.85	1.0	1.20	1.30		
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Vibration	<p>Peak acceleration: 50G Peak to peak amplitude: 1.5mm Frequency: 5 to 2,000 Hz reciprocation for 20 min. Direction and duration of vibration: 3 orthogonal directions mutually each for 4 Hrs.</p>																					

Diagram of Dimensions

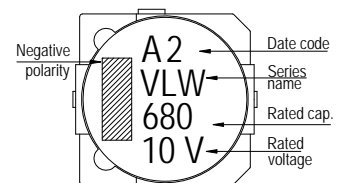


Lead Spacing and Diameter

Unit: mm

φD	L	A	B	C	W	P ± 0.2
12.5	13.5 ± 0.5	13.0	13.5	14.5	1.1 ~ 1.4	4.4
12.5	16 ± 0.5	13.0	13.5	14.5	1.1 ~ 1.4	4.4
16	16.5 ± 0.5	16.5	17.0	18.2	1.1 ~ 1.4	6.4

Marking



Dimension & Permissible Ripple Current

Dimension: φD × L(mm)

Ripple Current: mA/rms at 120 Hz, 125°C

V. DC	μF	Contents	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
	100	101									12.5×13.5	380
	220	221							12.5×13.5	380	12.5×16	430
	330	331			12.5×13.5	500	12.5×13.5	500	16×16.5	680	16×16.5	680
	470	471	12.5×13.5	500	12.5×13.5	500	12.5×13.5	500	16×16.5	680	16×16.5	680
	680	681	12.5×13.5	500	12.5×13.5	500	12.5×16	600	16×16.5	680		
	1,000	102	12.5×16	600	12.5×16	600	16×16.5	680				
	1,500	152	12.5×16	600	16×16.5	680						
	2,200	222	16×16.5	680								