



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



**WA SERIES**
**85°C 9mm~25mm Height**

\*Load Life : 85°C 2000 hours.

 RoHS  
compliance

**◆SPECIFICATIONS**

Items	Characteristics																																																		
Category Temperature Range	-40~+85°C	-25~+85°C																																																	
Rated Voltage Range	6.3~250Vdc	350~450Vdc																																																	
Capacitance Tolerance	±20%(20°C, 120Hz)																																																		
Leakage Current(MAX)	6.3~50Vdc	160~450Vdc																																																	
	I=0.01CV or 3µA whichever is greater. (After 2 minutes application of rated voltage)	CV≤1000 I=0.1CV+40µA (1minute) I=0.03CV+15µA (5minutes)	CV>1000 I=0.04CV+100µA (1minute) I=0.02CV+25µA (5minutes)																																																
		I=Leakage Current(µA)      C=Capacitance(µF)      V=Rated Voltage(Vdc)																																																	
Dissipation Factor(MAX) (tanδ)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>tanδ</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> </tr> </tbody> </table> (20°C, 120Hz)											Rated Voltage (Vdc)	6.3	10	16	25	35	50	160	200	250	350	400	450	tanδ	0.26	0.22	0.18	0.16	0.14	0.12	0.20	0.20	0.20	0.20	0.20	0.20														
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When capacitance is over 1000µF, tanδ shall be added 0.02 to the listed value with increase of every 1000µF.																																																			
Endurance	After applying rated voltage with rated ripple current for 2000 hours at 85°C, the capacitors shall meet the following requirements.																																																		
	Capacitance Change	Within ±25% of the initial value.																																																	
	Dissipation Factor	Not more than 200% of the specified value.																																																	
Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage (Vdc)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>3</td> <td>3</td> <td>3</td> <td>5</td> <td>5</td> <td>7</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> (120Hz)												Rated Voltage (Vdc)	6.3	10	16	25	35	50	160	200	250	350	400	450	Z(-25°C)/Z(20°C)	6	4	4	3	2	2	3	3	3	5	5	7	Z(-40°C)/Z(20°C)	12	10	8	6	4	3	-	-	-	-	-	-
	Rated Voltage (Vdc)	6.3	10	16	25	35	50	160	200	250	350	400	450																																						
	Z(-25°C)/Z(20°C)	6	4	4	3	2	2	3	3	3	5	5	7																																						
Z(-40°C)/Z(20°C)	12	10	8	6	4	3	-	-	-	-	-	-																																							
Leakage Current																																																			

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency (Hz)		60(50)	120	500	1k	10k≤
Coefficient	1.5~6.8µF	0.65	1.00	1.20	1.30	1.50
	10~68µF	0.80	1.00	1.20	1.30	1.50
	100~1000µF	0.80	1.00	1.10	1.15	1.20
	2200~10000µF	0.80	1.00	1.05	1.10	1.15

**◆OPTION**

	Code
PET Sleeve	EFC

**◆PART NUMBER**

□□□	WA	□□□□□	M	□□□	□□	D×L
Rated Voltage	Series	Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

