

**WA SERIES**
**85°C Low profile.**
**◆FEATURES**

- 9~25mm height.
- RoHS compliance.


**◆SPECIFICATIONS**

Items	Characteristics																																																		
Category Temperature Range	-40~+85°C	-25~+85°C																																																	
Rated Voltage Range	6.3~250V.DC	350~450V.DC																																																	
Capacitance Tolerance	±20%(20°C, 120Hz)																																																		
Leakage Current(MAX)	6.3~50V.DC	160~450V.DC																																																	
	I=0.01CV or 3µA whichever is greater. (After 2 minutes application of rated voltage)	CV≤1000	CV>1000																																																
		I=0.1CV+40µA (1minute) I=0.03CV+15µA (5minutes)	I=0.04CV+100µA (1minute) I=0.02CV+25µA (5minutes)																																																
	I=(µA) Leakage Current	C=(µF) Rated Capacitance	V=(V) Rated Voltage																																																
(tanδ) Dissipation Factor(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage</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>											Rated Voltage	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	(20°C, 120Hz)													
	Rated Voltage	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																																							
When rated 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.																																																	
	Leakage Current	Not more than the specified value.																																																	
Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <thead> <tr> <th>Rated Voltage</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>											Rated Voltage	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	-	-	-	-	-	-	(120Hz)
	Rated Voltage	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	-	-	-	-	-	-																																							

**◆MULTIPLIER FOR RIPPLE CURRENT**

Frequency Coefficient

(Hz) Frequency		60(50)	120	500	1k	10k≤
Coefficient	1.5~6.8µF	0.65	1.0	1.20	1.30	1.50
	10~68µF	0.8	1.0	1.20	1.30	1.50
	100~1000µF	0.8	1.0	1.10	1.15	1.20
	2200~10000µF	0.8	1.0	1.05	1.10	1.15

**◆OPTION**

	Code
PET Sleeve	EFC

**◆PART NUMBER**

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

