

**WA SERIES**
**85°C Miniaturized 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 3 μA whichever is greater. (After 2 minutes application of rated voltage)	CV ≤ 1000	CV > 1000
		I=0.1CV+40 μA (1minute) I=0.03CV+15 μA (5minutes)	I=0.04CV+100 μA (1minute) I=0.02CV+25 μA (5minutes)
	I=Leakage Current( μA)	C=Rated Capacitance( μF)      V=Rated Voltage(V)	
Dissipation Factor(MAX) (tan δ)	Rated Voltage (V)	6.3 10 16 25 35 50 160 200 250 350 400 450 (20°C, 120Hz)	
	tan δ	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 1000 μF, tan δ shall be added 0.02 to the listed value with increase of every 1000 μF.		
Endurance	After applying rated voltage with rated ripple current for 2000hrs 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)	Rated Voltage (V)	6.3 10 16 25 35 50 160 200 250 350 400 450 (120Hz)	
	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

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

**◆PART NUMBER**

□□□	WA	□□□□□	□	□□□	□□	DXL
Rated Voltage	Series	Rated Capacitance	Capacitance Tolerance	Option	Lead Forming	Case Size

