

**HXW SERIES**
**NEW**
**105°C 2000~3000 hours, Ultra Miniaturized**

• Temperature Range : -40°C~+105°C

RoHS compliance


**◆ SPECIFICATIONS**

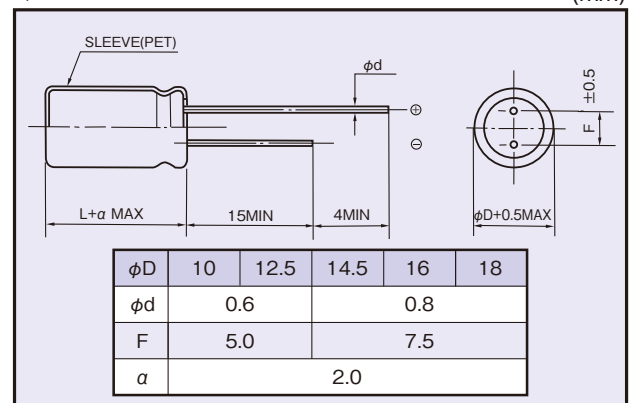
Items	Characteristics																		
Category Temperature Range	-40~+105°C																		
Rated Voltage Range	400~500Vdc																		
Capacitance Tolerance	±20% (20°C, 120Hz)																		
Leakage Current(MAX)	$I = 3 \sqrt{CV}$ (After 5 minutes application of rated voltage) $I = \text{Leakage Current} (\mu A)$ $C = \text{Capacitance} (\mu F)$ $V = \text{Rated Voltage (Vdc)}$																		
Dissipation Factor(MAX)	<table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>400</td> <td>420~500</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.20</td> <td>0.25</td> <td></td> </tr> </table>	Rated Voltage (Vdc)	400	420~500	(20°C, 120Hz)	tanδ	0.20	0.25											
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tanδ	0.20	0.25																	
Endurance	After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value.</td> <td>Case Size</td> <td>Life Time (hrs)</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> <td>φD ≤ 12.5</td> <td>2000</td> </tr> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> <td>φD ≥ 14.5</td> <td>L ≤ 25: 2000 L ≥ 30: 3000</td> </tr> </table>	Capacitance Change	Within ±20% of the initial value.	Case Size	Life Time (hrs)	Dissipation Factor	Not more than 200% of the specified value.	φD ≤ 12.5	2000	Leakage Current	Not more than the specified value.	φD ≥ 14.5	L ≤ 25: 2000 L ≥ 30: 3000						
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Low Temperature Stability Impedance Ratio(MAX)	<table border="1"> <tr> <td>Rated Voltage (Vdc)</td> <td>400</td> <td>420</td> <td>450</td> <td>500</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>5</td> <td>6</td> <td>6</td> <td>8</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>6</td> <td>10</td> <td>10</td> <td>12</td> <td></td> </tr> </table>	Rated Voltage (Vdc)	400	420	450	500	(120Hz)	Z(-25°C)/Z(20°C)	5	6	6	8		Z(-40°C)/Z(20°C)	6	10	10	12	
Rated Voltage (Vdc)	400	420	450	500	(120Hz)														
Z(-25°C)/Z(20°C)	5	6	6	8															
Z(-40°C)/Z(20°C)	6	10	10	12															

**◆ MULTIPLIER FOR RIPPLE CURRENT**

Frequency (Hz)	60(50)	120	500	1k	10k ≤
Coefficient	0.80	1.00	1.25	1.40	1.50

**◆ OPTION**

PET Sleeve (-40~+105°C)	Code
	EFR

**◆ DIMENSIONS**

**◆ PART NUMBER**

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

**◆STANDARD SIZE**

Rated Voltage (Vdc)	Capacitance (μF)	Size φD×L (mm)	Rated Ripple Current (A r.m.s./105°C,120Hz)
400	39	12.5×20	0.41
	47	10×30	0.47
	56	10×35	0.54
	56	10×40	0.57
	56	12.5×25	0.53
	56	14.5×20	0.52
	68	10×45	0.65
	68	12.5×30	0.61
	68	14.5×25	0.62
	68	16×20	0.59
	82	10×50	0.73
	82	10×55	0.75
	82	10×60	0.78
	82	12.5×35	0.70
	82	14.5×30	0.71
	82	18×20	0.67
	100	12.5×40	0.80
	100	12.5×45	0.84
	100	14.5×35	0.82
	100	16×25	0.74
	120	12.5×50	0.95
	120	14.5×40	0.93
	120	16×30	0.87
	120	18×25	0.85
	150	14.5×45	1.07
	150	14.5×50	1.11
	150	16×35	1.00
	150	16×40	1.07
	150	18×30	1.00
	180	16×45	1.20
180	18×35	1.14	
220	16×50	1.34	
220	18×40	1.30	
220	18×45	1.36	
270	18×50	1.53	

Rated Voltage (Vdc)	Capacitance (μF)	Size φD×L (mm)	Rated Ripple Current (A r.m.s./105°C,120Hz)
420	39	10X30	0.40
	39	12.5X20	0.38
	47	10X35	0.46
	47	12.5X25	0.45
	47	14.5X20	0.45
	56	10X40	0.52
	56	16X20	0.50
	68	10X45	0.60
	68	10X50	0.62
	68	12.5X30	0.57
	68	14.5X25	0.57
	82	10X55	0.70
	82	10X60	0.71
	82	12.5X35	0.64
	82	12.5X40	0.68
	82	14.5X30	0.66
	82	16X25	0.64
	82	18X20	0.62
	100	12.5X45	0.78
	100	14.5X35	0.76
	100	16X30	0.75
	120	12.5X50	0.86
	120	14.5X40	0.86
	120	14.5X45	0.90
	120	16X35	0.85
	120	18X25	0.78
	150	14.5X50	1.03
	150	16X40	0.99
	150	18X30	0.92
	180	16X45	1.11
180	16X50	1.15	
180	18X35	1.05	
180	18X40	1.11	
220	18X45	1.26	
270	18X50	1.40	

**◆STANDARD SIZE**

Rated Voltage (Vdc)	Capacitance ( $\mu$ F)	Size $\phi$ D×L (mm)	Rated Ripple Current (A r.m.s./105°C,120Hz)
450	33	12.5×20	0.36
	39	10×30	0.40
	47	10×35	0.46
	47	12.5×25	0.45
	47	14.5×20	0.44
	56	10×40	0.51
	56	10×45	0.55
	56	12.5×30	0.52
	56	14.5×25	0.52
	56	16×20	0.50
	68	10×50	0.62
	68	10×55	0.64
	68	12.5×35	0.60
	68	18×20	0.57
	82	10×60	0.71
	82	12.5×40	0.68
	82	12.5×45	0.71
	82	14.5×30	0.66
	82	16×25	0.64
	100	12.5×50	0.81
	100	14.5×35	0.75
	100	14.5×40	0.79
	100	16×30	0.75
	100	18×25	0.73
	120	14.5×45	0.90
	120	14.5×50	0.93
	120	16×35	0.86
	120	18×30	0.84
	150	16×40	0.97
	150	16×45	1.03
150	18×35	0.98	
180	16×50	1.15	
180	18×40	1.11	
220	18×45	1.24	
220	18×50	1.30	

Rated Voltage (Vdc)	Capacitance ( $\mu$ F)	Size $\phi$ D×L (mm)	Rated Ripple Current (A r.m.s./105°C,120Hz)
500	15	12.5×20	0.26
	22	12.5×25	0.33
	22	14.5×20	0.33
	27	12.5×30	0.38
	27	14.5×25	0.38
	27	16×20	0.37
	33	12.5×35	0.44
	39	12.5×40	0.50
	39	14.5×30	0.48
	39	16×25	0.48
	39	18×20	0.45
	47	12.5×45	0.57
	47	12.5×50	0.58
	47	14.5×35	0.56
	47	16×30	0.55
	47	18×25	0.54
	56	14.5×40	0.63
	56	16×35	0.62
	68	14.5×45	0.71
	68	14.5×50	0.74
	68	16×40	0.71
	68	18×30	0.68
	82	16×45	0.81
	82	16×50	0.83
	82	18×35	0.78
	100	18×40	0.88
	100	18×45	0.92
	100	18×50	0.95