

## TH series High Temperature

- The series has guaranteed operating life of 1000hrs at 125°C and also has the widest operating temperature range, -40°C~125°C.
- Applications: high reliability equipment, filtering circuit of switching power supply and industrial control equipment.

### ■ SPECIFICATIONS

Item	Performance Characteristics																																		
Operating Temperature Range	-40°C~125°C	-25°C~125°C																																	
Rated Voltage Range	10~100V	160~350V																																	
Capacitance Range	0.47~1000uF	1~100uF																																	
Capacitance Tolerance	±20% at 120Hz, 20°C																																		
Leakage Current (MAX)	≤0.01CV or 3uA whichever is greater. after 1 minute with rated working voltage applied	≤0.02CV after 1 minute with rated working voltage applied																																	
Dissipation Factor (tan δ)	When nominal capacitance is over 1000uF, tan δ shall be added 0.02 to the listed value with increase of every 1000uF. MAX (20°C/120Hz)																																		
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Low Temperature Stability Impedance Ratio	Measurement frequency: 120Hz																																		
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Rated voltage(V)		10	16	25	35	50	63	100	160~250	350																									
Impedance ratio	Z(-25°C) / Z(+20°C)	3	2	2	2	2	2	2	3	6																									
ZT/Z20 (MAX)	Z(-40°C) / Z(+20°C)	5	4	4	4	4	4	4	6	-																									
Load Life	After life test at conditions stated in the table below 1000hrs 125°C, the capacitors shall meet the following requirement.																																		
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Shelf Life	After leaving capacitors under no load at 125°C for 1000hours and applying voltage according to JIS C-5102 4-3, they meet the specified value for load life characteristics listed above.																																		
Standard	According to JIS C 5141																																		

### ■ MULTIPLIER FOR RIPPLE CURRENT

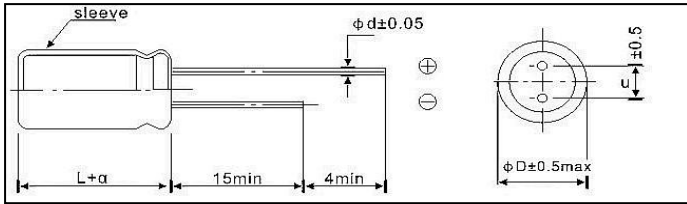
#### Frequency coefficient

Frequency(Hz)	60(50)	120	400	1k	10k~	50~100k
Cap≤10	0.80	1.00	1.30	1.45	1.65	1.70
10≤cap≤100	0.80	1.00	1.23	1.36	1.48	1.53
100≤cap≤1000	0.80	1.00	1.16	1.25	1.35	1.38
1000≤cap	0.80	1.00	1.11	1.17	1.25	1.28

Temperature	60°C	70°C	85°C	105°C	125°C
Coefficient	1.55	1.50	1.45	1.15	1.00

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### ■DIMENSIONS(mm)



ΦD	5	6.3	8	10	13	16	18	
Φd	0.5			0.6		0.8		
F	2.0	2.5	3.5	5.0		7.5		
α	L≤16 : α=1.5						L≥16 : α=2.0	

### ■STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

Size ΦD×L(mm)Ripple Current(mA 105°C,120Hz)r.m.s

W.V Cap(uF)	10 ( 13 )		16 ( 20 )		25 ( 32 )		35 ( 44 )		50 ( 63 )		63 ( 79 )	
	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple
4.7											6.3×12	35
10									6.3×12	45	8×12	50
22					6.3×12	65	6.3×12	80	8×12	85	8×12	90
33			6.3×11	85	6.3×12	90	8×12	105	8×12	120	10×13	130
47	5×11	90	6.3×12	105	8×12	115	10×13	160	10×13	154	10×17	165
100	6.3×12	125	8×12	190	10×13	240	10×17	260	10×20	264	10×20	285
220	8×12	310	10×13	385	10×17	462	10×20	535	13×21	585	13×25	590
330	10×13	380	10×17	510	10×20	620	13×21	720	13×25	895	16×25	985
470	10×17	515	10×20	810	13×21	805	13×25	905	16×25	998	16×25	1250
1000	10×20	945	13×21	980	16×25	1050	16×31.5	1195	18×25	1305	18×30	1450

Size ΦD×L(mm)Ripple Current(mA 105°C,120Hz)r.m.s

W.V Cap(uF)	100 ( 125 )		160 ( 200 )		200 ( 250 )		250 ( 300 )		350 ( 400 )	
	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple
0.47	6.3×12	12								
1	6.3×12	23	6.3×12	28	6.3×12	35	6.3×12	40	8×12	42
2.2	6.3×12	30	6.3×12	35	6.3×12	42	8×12	45	10×13	53
3.3	6.3×12	35	8×12	40	8×12	45	10×13	50	10×17	58
4.7	8×12	42	8×12	50	10×13	60	10×17	65	10×20	72
10	10×13	65	10×13	80	10×17	85	10×20	90	13×21	105
22	10×17	95	10×20	125	13×21	130	13×25	155	16×25	175
33	10×20	153	13×21	162	13×25	170	16×25	180	16×31.5	198
47	13×21	182	13×25	200	16×25	215	16×31.5	225	16×35	245
100	16×25	305	16×25	370	16×31.5	410				

※以上最大体积为标准尺寸，其他为体积缩小品，寿命相应缩短