

SM series 105°C 7mmL

- Designed for application of circuits at high operating temperature
- Solvent proof

■ SPECIFICATIONS

Item	Performance Characteristics																											
Operating Temperature Range	-40°C~105°C																											
Rated Voltage Range	6.3~63V																											
Capacitance Range	0.1~470uF																											
Capacitance Tolerance	±20% at 120Hz,20°C																											
Leakage Current (MAX)	After 2 minutes application of rated voltage.leakage current is not more than 0.01CV or 3(uA),whichever is greater																											
Dissipation Factor (tan δ)	For capacitance of more than 1000uF, added 0.02 for every increase of 1000 uF,Measurement frequency:120Hz, Temperature:20°C <table border="1" data-bbox="432 1086 1182 1164"> <thead> <tr> <th>Rated voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Tan δ</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>0.10</td> </tr> </tbody> </table>	Rated voltage(V)	6.3	10	16	25	35	50	63	Tan δ	0.26	0.22	0.18	0.16	0.14	0.12	0.10											
Rated voltage(V)	6.3	10	16	25	35	50	63																					
Tan δ	0.26	0.22	0.18	0.16	0.14	0.12	0.10																					
Low Temperature Stability Impedance Ratio	Measurement frequency:120Hz <table border="1" data-bbox="432 1220 1396 1326"> <thead> <tr> <th colspan="2">Rated voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> </tr> </thead> <tbody> <tr> <td>Impedance ratio</td> <td>Z(-25°C) / Z(+20°C)</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>ZT/Z20 (MAX)</td> <td>Z(-40°C) / Z(+20°C)</td> <td>6</td> <td>5</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table>	Rated voltage(V)		6.3	10	16	25	35	50	63	Impedance ratio	Z(-25°C) / Z(+20°C)	3	2	2	2	2	2	2	ZT/Z20 (MAX)	Z(-40°C) / Z(+20°C)	6	5	4	3	3	3	3
Rated voltage(V)		6.3	10	16	25	35	50	63																				
Impedance ratio	Z(-25°C) / Z(+20°C)	3	2	2	2	2	2	2																				
ZT/Z20 (MAX)	Z(-40°C) / Z(+20°C)	6	5	4	3	3	3	3																				
Load Life	After 1000 hours application of rated voltage at 105°C capacitors meet the characteristics requirements listed at right. <table border="1" data-bbox="432 1422 981 1518"> <tbody> <tr> <td>Leakage Current</td> <td>Specified value or less</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>200% or less of specified value</td> </tr> </tbody> </table>	Leakage Current	Specified value or less	Capacitance Change	Within ±20% of initial value	Dissipation Factor	200% or less of specified value																					
Leakage Current	Specified value or less																											
Capacitance Change	Within ±20% of initial value																											
Dissipation Factor	200% or less of specified value																											
Shelf Life	After leaving capacitors under no load at 105°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

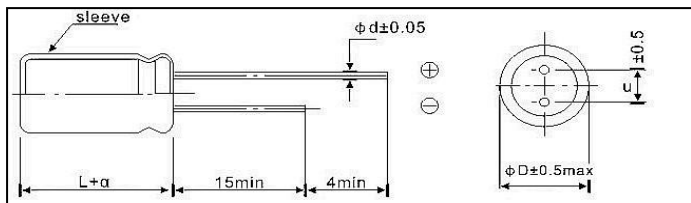
Frequency coefficient

W.V	Frequency(Hz)					
	Cap(uF)	60(50)	120	300	1k	10k~
6.3~63	0.1~82	0.80	1.00	1.20	1.30	1.50
	100~470	0.80	1.00	1.10	1.15	1.20

Temperature	65°C	75°C	85°C	105°C
Coefficient	1.78	1.70	1.40	1.00

SM series 105°C 7mmL

■DIMENSIONS(mm)



ΦD	4	5	6.3	8
Φd	0.45	0.5		
F	1.5	2.0	2.5	3.5
α	1.0			

■STANDARD SIZE PERMISSIBLE RIPPLE CURRENT

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

W.V Cap(μF)	6.3		10		16		25		35		50		63	
	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple	SIZE	Ripple
0.1											4×7	1	4×7	1.3
0.22											4×7	2.3	4×7	2.9
0.33											4×7	3.5	4×7	4.4
0.47											4×7	5	4×7	7.9
0.68											4×7	7		
1									4×7	9	4×7	10	4×7	11
2.2					4×7	12					4×7 5×7	19 22	4×7	17
3.3					4×7	15	4×7	17			4×7	24	4×7	25
4.7	4×7	10			4×7	17	4×7	19	4×7	24	4×7 5×7	26 29	5×7	30
6.8									4×7	29	4×7 5×7	29 32		
10	4×7	20	4×7	25	4×7	29	4×7 5×7	31 33	4×7 5×7	34 36	4×7 5×7 6.3×7	31 36 44	6.3×7	46
22	4×7	34	4×7 5×7	35 38	4×7 5×7	41 44	4×7 5×7 6.3×7	35 46 51	5×7 6.3×7	46 57	6.3×7 8×7	61 65		
33	4×7 5×7	38 42	4×7 5×7	42 47	4×7 5×7 6.3×7	30 50 57	5×7 6.3×7	57 63	6.3×7 8×7	64 72	6.3×7			
47	4×7 5×7	46 50	4×7 6.3×7	53 59	4×7 5×7 6.3×7	48 56 68	5×7 6.3×7 8×7	60 70 78	6.3×7	75				
56							6.3×7	80						
82							8×7	90						
100	5×7 6.3×7	63 77	5×7 6.3×7 8×7	72 86 96	6.3×7 8×7	96 107	6.3×7 8×7	102 130						
220	6.3×7 8×7	78 103	6.3×7 8×7	110 140	6.3×7 8×7	139 145								
330	6.3×7	120	8×7	145										
470	8×7	140	8×7	150	8×7	160								

※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