

# SM (CD11W/CDV)

- Be 5mm in height and mini-size
- Suitable for camera, car audio, mini-audio sets, VCD, DVD, interphone, mobile phone, etc.
- Adapted to the ROHS directive (2002/95/EC).

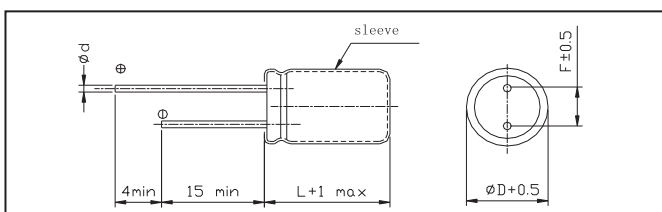


## Specifications

Item	Performance Characteristics																								
Operating temperature rang	-40 ~ +85°C																								
Rated voltage range	4 ~ 50V																								
Nominal capacitance range	0.1~470μF																								
Capacitance tolerance	± 20% (120Hz, +20°C)																								
Leakage current	$I \leq 0.01CV (\mu A) \quad 3\mu A 2$ (at 20°C, after 2 minutes)(Whichever is greater)																								
Dissipation factor (tg δ) (+20°C, 120Hz)	<table border="1"> <tr> <td><math>U_R (V)</math></td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>tg δ</td> <td>0.35</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> </tr> </table>	$U_R (V)$	4	6.3	10	16	25	35	50	tg δ	0.35	0.26	0.22	0.18	0.16	0.14	0.12								
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Temperature characteristics (Impedance ratio at 120Hz)	<table border="1"> <tr> <td><math>U_R (V)</math></td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> </tr> <tr> <td>Z-25°C/+20°C</td> <td>7</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40°C/+20°C</td> <td>15</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table>	$U_R (V)$	4	6.3	10	16	25	35	50	Z-25°C/+20°C	7	4	3	2	2	2	2	Z-40°C/+20°C	15	8	6	4	4	3	3
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Z-25°C/+20°C	7	4	3	2	2	2	2																		
Z-40°C/+20°C	15	8	6	4	4	3	3																		
Load life	After applying rated voltage for 1000 hours at +85°C and then resumed 16 hours: Capacitance change : ±25% Initial measured value (4V Ø3: ≤ ±30%) Leakage current : ≤ Initial specified value Dissipation factor : ≤ 2 times Initial specified value																								
Shelf life	After storage for 1000 hours at +105°C and then resumed 16 hours Capacitance change : ±25% Initial measured value (4V Ø3: ≤ ±30%) Leakage current : ≤ 2 times Initial specified value Dissipation factor : ≤ 2 times Initial specified value																								

## Case size table

Unit: mm



D	3	4	5	6	8
F	1.0	1.5	2.0	2.5	3.5
d	0.4	0.45			0.5

## Dimensions

$C_R (\mu F)$	$U_R$ Code	4V		6.3V		10V		16V		25V		35V		50V		
		0G		0J		1A		1C		1E		1V		1H		
0.1	0R1														4(3)×5	1.0
0.22	R22														4(3)×5	2.0
0.33	R33														4(3)×5	2.8
0.47	R47														4(3)×5	4.0
1	010														4(3)×5	8.4
2.2	2R2											3×5	8.4	4(3)×5	13	
3.3	3R3									3×5	10	4×5	14	4×5	17	
4.7	4R7							3×5	13	4×5	16	4×5	18	5×5	20	
10	100			3×5	15	3×5	17	3×5	23	5×5	27	5×5	29	6×5	33	
22	220	3×5	19	3×5	28	3×5	33	4×5	37	6×5	42	6×5	46	8×5	52	
33	330	4×5	28	4×5	37	4×5	41	5×5	49	6×5	52	8×5	62	8×5	71	
47	470	4×5	33	4×5	45	5×5	52	6×5	58	8×5	70	8×5	80			
100	101	5×5	56	5×5	70	6×5	80	8×5	92	8×5	110					
220	221	6×5	96	6×5	110	8×5	135									
330	331	8×5	145	8×5	170											
470	471	8×5	185													

Rated ripple current(mA, +85°C, 120Hz)