

# TS13D CD81

## FEATURES

- 105°C 2000 hours wide temperature
- Low leakage current



## ◆ Specifications

I T E M S	P E R F O R M A N C E   C H A R A C T E R I S T I C S																		
Rated Voltage	-40~+105°C (6.3-400V), -25°C~+105°C (450V)																		
Capacitance	±20%																		
Dissipation Factor	<table border="1"> <tr> <td>Raged Voltage (V)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> </tr> <tr> <td>Tan δ</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.1</td> <td>0.09</td> <td>0.08</td> <td>0.12</td> </tr> </table>	Raged Voltage (V)	10	16	25	35	50	63	100	160	Tan δ	0.19	0.16	0.14	0.12	0.1	0.09	0.08	0.12
Raged Voltage (V)	10	16	25	35	50	63	100	160											
Tan δ	0.19	0.16	0.14	0.12	0.1	0.09	0.08	0.12											
Leakage Current	0.002CV or 3 μ A, whichever is greater (at 20°C, after 2 minutes)																		
Load Life (+105°C)	<p>After 2000hours application of rated voltage at 105°C, the capacitors shall meet follow limits.</p> <table border="1"> <tr> <td>Leakage Current</td> <td>Not more than the specified value.</td> </tr> <tr> <td>Capacitance Change</td> <td>Within±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value.</td> </tr> </table>	Leakage Current	Not more than the specified value.	Capacitance Change	Within±20% of the initial value	Dissipation Factor	Not more than 200% of the specified value.												
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Temperature Stability (120Hz)	<p>Impedance ratio at 100Hz or 120Hz shall not exceed the values given in below table.</p> <table border="1"> <tr> <td>Rated Voltage (V)</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> <td>160</td> </tr> <tr> <td>Z-40°C / Z+20°C</td> <td>5</td> <td>5</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> </tr> </table>	Rated Voltage (V)	10	16	25	35	50	63	100	160	Z-40°C / Z+20°C	5	5	4	4	4	4	4	4
Rated Voltage (V)	10	16	25	35	50	63	100	160											
Z-40°C / Z+20°C	5	5	4	4	4	4	4	4											
Shelf Life (+105°C)	<p>1000 hours no voltage application, the capacitors shall meet follow this</p> <table border="1"> <tr> <td>Leakage Current</td> <td>Not more than 200% of the specified value</td> </tr> <tr> <td>Capacitance Change</td> <td>Within ±20% of the initial value</td> </tr> <tr> <td>Dissipation Factor</td> <td>Not more than 200% of the specified value</td> </tr> </table>	Leakage Current	Not more than 200% of the specified value	Capacitance Change	Within ±20% of the initial value	Dissipation Factor	Not more than 200% of the specified value												
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## ◆ Dimensions

mm																																						
<table border="1"> <tr> <td>ΦD</td> <td>5</td> <td>6.3</td> <td>8</td> <td>10</td> <td>12.5</td> <td>16</td> <td>18</td> </tr> <tr> <td>Φd±0.05</td> <td>0.5</td> <td>0.5</td> <td>0.5</td> <td>0.6</td> <td>0.6</td> <td>0.8</td> <td>0.8</td> </tr> <tr> <td>P</td> <td>2.0</td> <td>2.5</td> <td>3.5</td> <td>5.0</td> <td>5.0</td> <td>7.5</td> <td>7.5</td> </tr> <tr> <td>β Max</td> <td colspan="5">0.5</td><td colspan="2" rowspan="5">1.0</td></tr> </table>							ΦD	5	6.3	8	10	12.5	16	18	Φd±0.05	0.5	0.5	0.5	0.6	0.6	0.8	0.8	P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	β Max	0.5					1.0	
ΦD	5	6.3	8	10	12.5	16	18																															
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P	2.0	2.5	3.5	5.0	5.0	7.5	7.5																															
β Max	0.5					1.0																																
a Max	D<18		D=18																																			
	L<35.5		L≥35.5																																			
	+1.5 -1.0		+1.5 -1.0																																			
			+2.0 -1.0																																			

## ◆ Multiplier for ripple current

## Frequency coefficient factor for ripple current

Rated Voltage	50.60	120	1K	10-30K	30-100K
10~16	0.8	1	1.1	1.2	1.2
25~35	0.8	1	1.5	1.7	1.7
50~160	0.8	1	1.6	1.9	1.9

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◆ Case Size DxL(mm)      Ripple current (mA, 150°C/120Hz)

WV/V Cap/ μF	10		16		25		35		50		63		100		160		250	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
0.1	--	--	--	--	--	--	--	--	5x11	3	--	--	--	--	5x11	2	--	--
0.22	--	--	--	--	--	--	--	--	5x11	4	--	--	--	--	5x11	3	--	--
0.33	--	--	--	--	--	--	--	--	5x11	5	--	--	--	--	5x11	3	--	--
0.47	--	--	--	--	--	--	--	--	5x11	6	--	--	5x11	6	5x11	4	--	--
0.68	--	--	--	--	--	--	--	--	5x11	7	--	--	5x11	7	5x11	5	--	--
1	--	--	--	--	--	--	--	--	5x11	8	--	--	5x11	9	5x11	6	6.3x11	15
1.5	--	--	--	--	--	--	--	--	5x11	10	--	--	5x11	11	5x11	7	--	--
2.2	--	--	--	--	--	--	--	--	5x11	12	--	--	5x11	13	6.3x11	10	6.3x12	25
3.3	--	--	--	--	--	--	--	--	5x11	15	--	--	5x11	16	6.3x11	12	8x12	35
4.7	--	--	--	--	--	--	--	--	5x11	17	5x11	18	5x11	20	8x12	17	8x12	40
6.8	--	--	--	--	--	--	--	--	5x11	21	5x11	22	6.3x11	26	8x12	21	--	--
10	--	--	--	--	--	--	--	--	5x11	25	6.3x11	27	6.3x12	32	10x12	28	10x16	75
15	--	--	--	--	--	--	--	--	5x11	31	6.3x11	37	8x12	46	10x16	40	--	--
22	--	--	--	--	--	--	5x11	35	5x12	38	6.3x11	45	10x12	62	10x16	54	12.5x20	140
33	--	--	--	--	5x11	39	5x11	42	6.3x11	52	6.3x12	55	10x16	88	12.5x20	75	12.5x20	170
47	--	--	5x11	44	5x12	47	6.3x11	57	6.3x12	62	8x12	77	10x16	105	12.5x20	90	12.5x25	24
68	--	--	5x11	53	6.3x11	63	6.3x11	68	8x12	88	10x12	104	10x20	142	12.5x25	120	--	--
100	5x11	57	6.3x11	72	6.3x12	76	8x12	97	8x12	107	10x12	126	12.5x20	196	16x25	162	16x30	440
150	6.3x11	70	6.3x11	88	8x12	110	10x12	133	10x12	146	10x16	178	12.5x20	340	--	--	--	--
220	6.3x11	95	6.3x12	125	8x12	134	10x12	161	10x16	204	10x20	274	16x25	361	--	--	--	--
330	8x12	137	8x12	153	10x12	183	10x16	228	10x20	279	12.5x20	336	16x25	442	--	--	--	--
470	8x12	163	8x12	204	10x16	252	10x16	304	12.5x20	380	12.5x25	448	16x30	577	--	--	--	--
680	10x12	220	10x16	283	10x20	339	12.5x20	471	12.5x25	511	16x25	598	--	--	--	--	--	--
1000	10x16	307	10x16	384	10x20	468	12.5x20	506	16x25	688	16x30	794	--	--	--	--	--	--
1500	10x20	421	10x20	537	12.5x20	574	16x25	769	16x30	922	--	--	--	--	--	--	--	--
2200	12.5x20	554	12.5x20	813	12.5x25	806	16x25	944	18x35	1168	--	--	--	--	--	--	--	--
3300	12.5x20	650	12.5x25	883	16x25	1020	16x30	1239	--	--	--	--	--	--	--	--	--	--
4700	16x25	924	16x25	1101	16x30	1323	--	--	--	--	--	--	--	--	--	--	--	--
6800	16x30	1134	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Note: Specification are subject to change without notice. For more detail and update, please visit our website.