

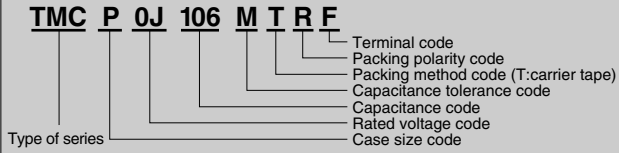
TANTALUM ELECTROLYTIC CAPACITORS

TMCP Series (0805 Size Tantalum Chip Capacitors)

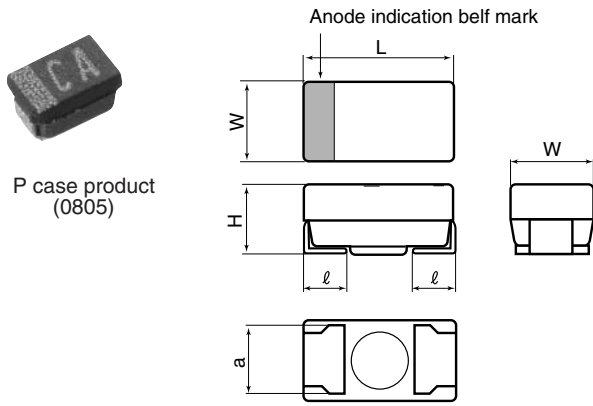
Features

- Rendered even smaller-sized thanks to the accumulated technological knowhow (reduced to about 1/3 the cubic volume of the TMCS type).
- Suitable for high-density packaging essential to Audio Visual and other equipment downsizing.

Product symbol : (Example) TMC Series P case 6.3V 10 μ F \pm 20%



Outline of drawings and dimensions



Dimensions (Unit : mm)

Case code	Case size				
	L ^{+0.2}	W ^{+0.2}	H ^{MAX}	l ^{+0.2}	a ^{+0.1}
P	2.0	1.25	1.2	0.5	0.9

Standard value and case size

Capacitance	μ F	Code	Rated voltage (V.DC)						
			2.5	4	6.3	10	16	20	25
			0E	0G	0J	1A	1C	1D	1E
0.10	104							P	P
0.15	154							P	
0.22	224							P	
0.33	334							P	
0.47	474							P	P
0.68	684							P	
1.0	105							P	P
1.5	155							P	P
2.2	225							P	P
3.3	335							P	
4.7	475							P	
6.8	685							P	
10	106							P	
15	156	P	P	P					
22	226	P	P	P					
33	336	P	P						
47	476	P	P						

For ratings not covered the table, consult Hitachi AIC.

Product specifications	TMCP	Test conditions JIS C5101-1:1998																																												
Operating temperature range	-55°C ~ +125°C																																													
Rated voltage	DC2.5 ~ 25V	85°C																																												
Surge voltage	DC3.2 ~ 32V	85°C																																												
Derated voltage	DC1.6 ~ 16V	125°C																																												
Capacitance	0.1 ~ 47 μ F																																													
Capacitance tolerance	\pm 10% or 20%	Paragraph 4.7, 120 Hz																																												
Leakage current	Refer to table standard product table	Paragraph 4.9, in 5 minutes after the rated voltage is applied.																																												
tan δ	Refer to table standard product table	Paragraph 4.8, 120Hz																																												
Surge withstanding voltage	Δ C/C \pm 20% or less tan δ Specified initial value or less LC Specified initial value or less	Paragraph 4.26																																												
Temperature characteristics	<table border="1"> <thead> <tr> <th>Specified initial value</th> <th>-55</th> <th>85</th> <th>125</th> </tr> </thead> <tbody> <tr> <td>Δ C/C</td> <td>-</td> <td>-20 - 0%</td> <td>0 - +20%</td> <td>0 - +20%</td> </tr> <tr> <td>tanδ</td> <td>0.06</td> <td>0.10</td> <td>0.08</td> <td>0.10</td> </tr> <tr> <td>like shown table or less</td> <td>0.08</td> <td>0.12</td> <td>0.10</td> <td>0.12</td> </tr> <tr> <td></td> <td>0.10</td> <td>0.14</td> <td>0.12</td> <td>0.14</td> </tr> <tr> <td></td> <td>0.12</td> <td>0.16</td> <td>0.14</td> <td>0.16</td> </tr> <tr> <td></td> <td>0.20</td> <td>0.24</td> <td>0.22</td> <td>0.24</td> </tr> <tr> <td></td> <td>0.30</td> <td>0.60</td> <td>0.30</td> <td>0.40</td> </tr> <tr> <td>LC</td> <td>Refer to standard product table</td> <td>100% or less specified initial value or less</td> <td>120% or less specified initial value or less</td> <td></td> </tr> </tbody> </table>	Specified initial value	-55	85	125	Δ C/C	-	-20 - 0%	0 - +20%	0 - +20%	tan δ	0.06	0.10	0.08	0.10	like shown table or less	0.08	0.12	0.10	0.12		0.10	0.14	0.12	0.14		0.12	0.16	0.14	0.16		0.20	0.24	0.22	0.24		0.30	0.60	0.30	0.40	LC	Refer to standard product table	100% or less specified initial value or less	120% or less specified initial value or less		Paragraph 4.24
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Solder heat resistance	Δ C/C \pm 20% or less tan δ Specified initial value or less LC Specified initial value or less	Solder Dip 260 \pm 5°C 10 \pm 1 sec. Reflow 260°C 10 \pm 1 sec.																																												
Moisture resistance no load	Δ C/C \pm 20% or less tan δ 150% Specified initial value or less LC Specified initial value or less	Paragraph 4.22, 40°C 90 ~ 95%RH, 500hours																																												
High-temperature load	Δ C/C \pm 20% or less tan δ Specified initial value or less LC 200% Specified initial value or less	Paragraph 4.23, 85°C The rated voltage is applied for 2000 hours.																																												
Thermal shock	Δ C/C \pm 20% or less tan δ Specified initial value or less LC Specified initial value or less	Leave at -55°C, normal temperature, 125°C, and normal temperature for 30 min., 3 min., 30 min., and 3 min. Repeat this operation 5 times running.																																												
Moisture resistance load	Δ C/C \pm 20% or less tan δ 150% Specified initial value or less LC 200% Specified initial value or less	40°C, humidity 90 to 95%RH The rated voltage is applied for 500 hours.																																												
Failure rate	1% / 1000hours	85°C. The rated voltage is applied (through a protective resistor of 1 Ω /V).																																												

*This catalog is designed for providing general information. Please inquire of our Sales Department to confirm specifications prior to use.

