

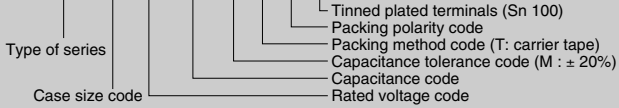
## TMCJ Series (Ultra Small Package, 0603 Size Chip Tantalum Capacitor.)

### Features

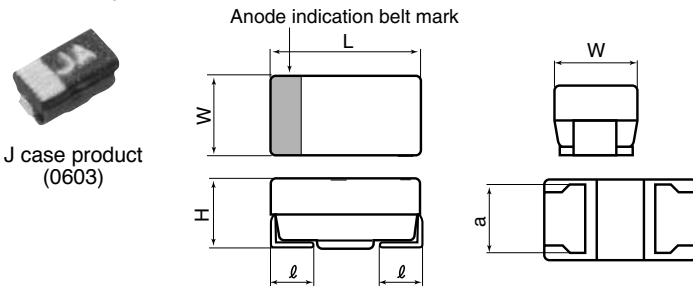
- Rendered even smaller-sized thanks to accumulated technological know-how of TMCP. (reduced to about 1/3 the cubic volume of the TMCP type)
- Suitable for high-density packaging essential to Audio Visual and other equipment downsizing.

Product symbol : (Example) TMCJ Series 6.3V 10 $\mu$ F  $\pm$ 20%

**TMC J 0J 106 M T R E**



### Outline of drawings and dimensions



### Dimensions (Unit: mm)

Case code	Case size				
	L $\pm$ 0.1	W $\pm$ 0.1	H $\pm$ 0.1	$\ell$ $\pm$ 0.15	a $\pm$ 0.1
J	1.6	0.8	0.8	0.3	0.6

### Standard value and case size

Capacitance	Code	Rated voltage (V.DC)					
		2.5	4	6.3	10	16	20
0.68	684						J
1.0	105						J
1.5	155						J
2.2	225			J	J		J
3.3	335			J	J		
4.7	475	J	J	J	J		
6.8	685	J	J	J			
10	106	J	J	J			
15	156	J	J				
22	226	J	J				

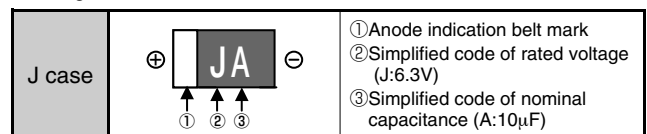
### Standard product tables - TMCJ series

Rated voltage V. DC	capacitance $\mu$ F	tan $\delta$	Leakage current $\mu$ A	case code	Product name
2.5	4.7	0.2	0.5	J	TMCJ0E475
	6.8	0.2	0.5	J	TMCJ0E685
	10	0.2	0.5	J	TMCJ0E106
	15	0.2	0.5	J	TMCJ0E156
	22	0.2	0.5	J	TMCJ0E226
4	4.7	0.2	0.5	J	TMCJ0G475
	6.8	0.2	0.5	J	TMCJ0G685
	10	0.2	0.5	J	TMCJ0G106
	15	0.2	6.0	J	TMCJ0G156
	22	0.2	8.8	J	TMCJ0G226
6.3	2.2	0.2	0.5	J	TMCJ0J225
	3.3	0.2	0.5	J	TMCJ0J335
	4.7	0.2	0.5	J	TMCJ0J475
	6.8	0.2	0.5	J	TMCJ0J685
	10	0.2	0.6	J	TMCJ0J106
10	1.5	0.2	0.5	J	TMCJ1A155
	2.2	0.2	0.5	J	TMCJ1A225
	3.3	0.2	0.5	J	TMCJ1A335
	4.7	0.2	0.5	J	TMCJ1A475
16	1	0.2	0.5	J	TMCJ1C105
	1.5	0.2	0.5	J	TMCJ1C155
	2.2	0.2	0.5	J	TMCJ1C225
20	0.68	0.2	0.5	J	TMCJ1D684

Product specifications	TMCJ	Test conditions JIS C5101-1:1998												
Operating temperature range	-55°C ~ +125°C													
Rated voltage	DC2.5 ~ 20V	85°C												
Surge voltage	DC3.2 ~ 26V	85°C												
Derated voltage	DC1.6 ~ 13V	125°C												
Capacitance	0.68 ~ 22 $\mu$ F													
Capacitance tolerance	$\pm$ 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 $\delta$	0.2 or less	Paragraph 4.8, 120Hz												
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><math>\Delta</math> C/C</td> <td>-20 ~ 0%</td> <td>0 ~ +20%</td> <td>0 ~ +20%</td> </tr> <tr> <td>tan<math>\delta</math></td> <td>0.2</td> <td>0.3</td> <td>0.2</td> </tr> </tbody> </table>	Specified initial value	-55	85	125	$\Delta$ C/C	-20 ~ 0%	0 ~ +20%	0 ~ +20%	tan $\delta$	0.2	0.3	0.2	Paragraph 4.24
	Specified initial value	-55	85	125										
$\Delta$ C/C	-20 ~ 0%	0 ~ +20%	0 ~ +20%											
tan $\delta$	0.2	0.3	0.2											
LC	Refer to standard product table	1000% or less specified initial value or less	1250% or less specified initial value or less											
Solder heat resistance	$\Delta$ C/C $\pm$ 20% or less tan $\delta$ 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	$\Delta$ C/C $\pm$ 20% or less tan $\delta$ 150% Specified initial value or less LC Specified initial value or less	Paragraph 4.22, 40°C 90 ~ 95%RH, 500hours												
High-temperature load	$\Delta$ C/C $\pm$ 20% or less tan $\delta$ 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	$\Delta$ C/C $\pm$ 20% or less tan $\delta$ 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.												
Failure rate	1%/1000hours	85°C. The rated voltage is applied (through a protective resistor of 1 $\Omega$ /V).												

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

### Marking indication TMCJ series



Sinus Electronic GmbH

07132 9969 25

Michael.Feimer@sinus-electronic.de