

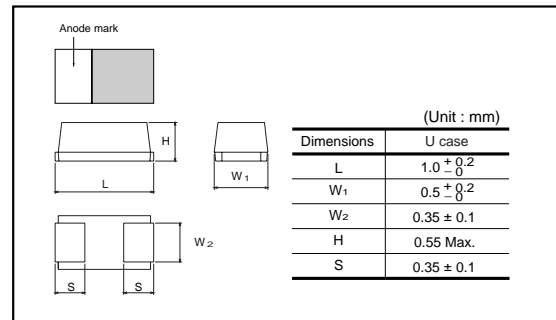
Chip tantalum capacitors (Bottom surface electrode type)

TCT Series U Case

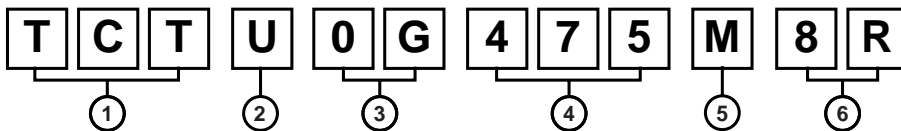
●Features (U)

- 1) Ultra-compact package
60% smaller footprint and 70% smaller volume than our conventional 1608(0603)-sized TCM series capacitors.
- 2) High capacitance : 1.0 μ F to 10 μ F
Ideal for coupling and noise reduction in audio circuits
- 3) High productivity, high reliability
Featuring the popular underside electrode configuration
- 4) Environmentally friendly halogen-free package

●Dimensions (Unit : mm)



●Part No. Explanation



① Series name
TCT

② Case style
U

③ Rated voltage

Rated voltage (V)	2.5	4	6.3	10
CODE	0E	0G	0J	1A

④ Nominal capacitance
Nominal capacitance in pF in 3 digits:
2 significant figures followed by the figure
representing the number of 0's.

⑤ Capacitance tolerance
M : \pm 20%

⑥ Taping
8 : Tape width
R : Positive electrode on the side opposite to sprocket hole

Tantalum capacitors

● Rated table

(μF)	Rated voltage (V)			
	2.5 0E	4 0G	6.3 0J	10 1A
1.0 (105)			U	*U
1.5 (155)				
2.2 (225)			U	
3.3 (335)				
4.7 (475)		U		
6.8 (685)				
10 (106)	*U			
15 (156)				

Remark) Case size codes (U) in the above show products line-up.

* Under development

● Marking

The indications listed below should be given on the surface of a capacitor.

- (1) Polarity : The polarity should be shown by □ bar. (on the anode side)
- (2) Rated DC voltage : Due to the small size of U case, a voltage code is used as shown below.
- (3) Visual typical example (1) voltage code (2) capacitance code

Voltage Code	Rated DC Voltage (V)
e	2.5
g	4
j	6.3
A	10

Capacitance Code	Nominal Capacitance (μF)
A	1.0
J	2.2
S	4.7
a	10

[U case] note 1)

$\frac{g}{(1)}$ $\frac{S}{(2)}$



manufacture code

note 2) voltage code and capacitance code are variable with parts number

Tantalum capacitors

● Characteristics

Item	Performance	Test conditions (based on JIS C 5101-1 and JIS C 5101-3)
Operating Temperature	-55°C to +125°C	Voltage reduction when temperature exceeds +85°C
Maximum operating temperature with no voltage derating	+85°C	
Rated voltage (VDC)	2.5 4 6.3 10	at 85°C
Category voltage (VDC)	1.6 2.5 4 6.3	at 125°C
Surge voltage (VDC)	3.2 5.0 8 13	at 85°C
DC Leakage current	Shall be satisfied the voltage on " Standard list "	As per 4.9 JIS C 5101-1 As per 4.5.1 JIS C 5101-3 Voltage : Rated voltage for 5min
Capacitance tolerance	Shall be satisfied allowance range. ±20%	As per 4.7 JIS C 5101-1 As per 4.5.2 JIS C 5101-3 Measuring frequency : 120±12Hz Measuring voltage : 0.5Vrms +1.5 to 2V.DC Measuring circuit : DC Equivalent series circuit
Tangent of loss angle (Df, tan δ)	Shall be satisfied the voltage on " Standard list "	As per 4.8 JIS C 5101-1 As per 4.5.3 JIS C 5101-3 Measuring frequency : 120±12Hz Measuring voltage : 0.5Vrms +1.5 to 2V.DC Measuring circuit : DC Equivalent series circuit
Impedance	Shall be satisfied the voltage on " Standard list "	As per 4.10 JIS C 5101-1 As per 4.5.4 JIS C 5101-3 Measuring frequency : 100±10kHz Measuring voltage : 0.5Vrms or less Measuring circuit : DC Equivalent series circuit

● Standard products list, TCT series

Part No.	Rated voltage 85°C	Category voltage 125°C	Surge voltage 85°C	Cap. 120Hz	Tolerance (%)	Leakage current 25°C 1WV.5min (μA)	Df 120Hz (%)	ESR 100kHz
	(V)	(V)	(V)	(μF)			25°C 85°C	(Ω)
TCT U 0G 475□	4	2.5	5	4.7	±20	0.5	20	20
TCT U 0J 225□	6.3	4	8	2.2	±20	0.5	20	20

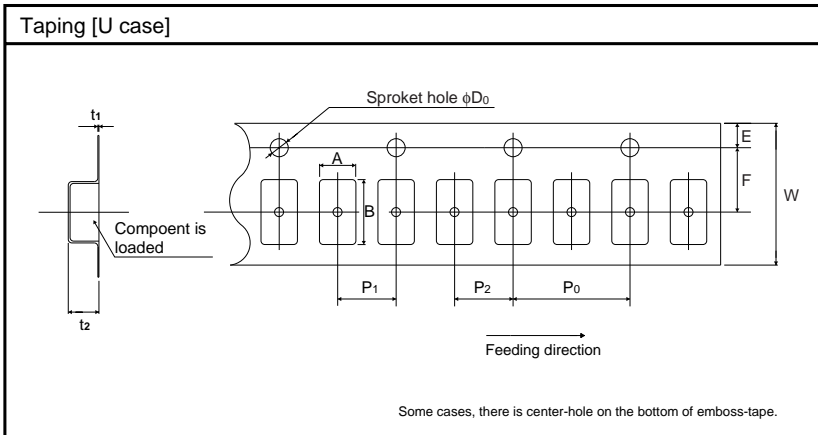
□=Tolerance (M : ±20%)

Tantalum capacitors

● Packaging specifications

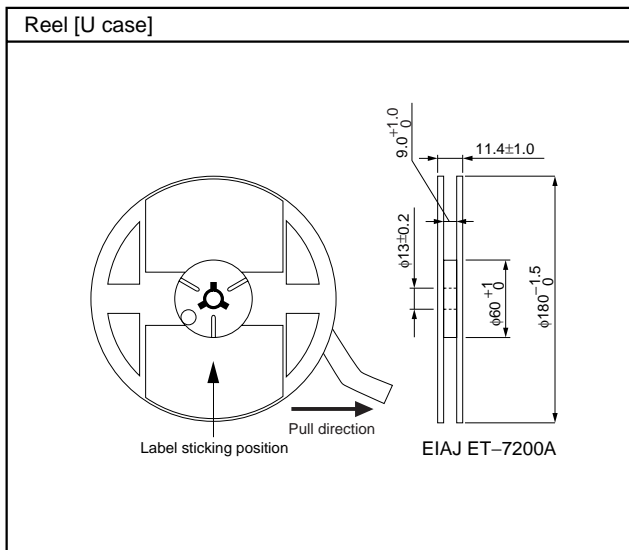
Case code	A±0.1	B±0.1	W±0.2	E±0.1	F±0.05	P1±0.1	P2±0.1	P0±0.1
U	0.75	1.25	8.0	1.75	3.5	2.0	2.0	4.0

Case code	D ₀	t ₁ ±0.05	t ₂ ±0.1
U	φ1.55	0.20	0.60



● Packaging style

Case code	Packaging	Packaging style		Symbol	Basic ordering units
U case	Taping	plastic taping	φ180mm Reel	R	10,000pcs



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