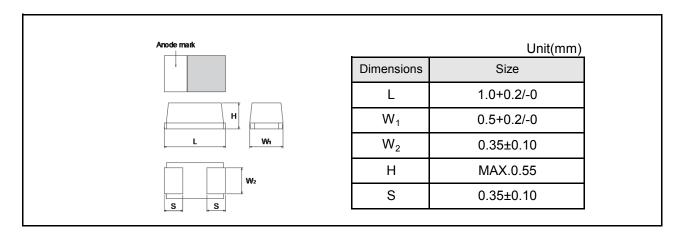


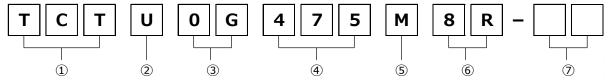
Features

- 1) Bottom electrode configuration results in significantly greater compactness.
- 2) Filet formation enables easy visibility after mounting.
- 3) Ideal for noise removal on power supply lines with limited space.
- 4) Eco-friendly halogen-free products.

Dimensions



Part No. Explanation



① Series name TCT

② Case code

U: 1005-055(0402)size

3 Rated voltage

Taled Vollage					
Code	Rated voltage(V)				
0E	2.5				
0G	4				
0J	6.3				
1A	10				
1B	13				
1C	16				
1D	20				
1E	25				
1V	35				

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: ±20%

6 Taping

8: Real width: 8mm

R: Positive electrode on the side opposite to sprocket hole

⑦ Discrimination code

^{*}This specification has possibility of charge, due to underdevelopment product. Please ask for latest specification to our sales.

Rated table

Capacitance	Rated voltage(V.DC)						
(µF)	2.5	4	6.3	10	16	20	25
0.33 (334)						U	
0.47 (474)			U				
1.0 (105)			U	☆U	☆U		
2.2 (225)			U				
3.3 (335)							
4.7 (475)		U	U				
10 (106)		☆U					
15 (156)	U						
22 (226)							
33 (336)							
47 (476)							
100 (107)							

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 \square bar. (on the anode side)
- (2) Rated DC voltage: A voltage code is shown as below table.
- (3) Capacitance: A capacitance code is shown as below table.

Voltage	Rated DC
Code	Voltage (V)
е	2.5
g	4
j	6.3
Α	10
С	16
D	20
E	25
V	35

Capacitance	Nominal	Capacitance	Nominal
Code	Capacitance (µF)	Code	Capacitance (µF)
<u>N</u>	0.33	е	15
<u>S</u>	0.47	j	22
Α	1.0	n	33
E	1.5	s	47
J	2.2	а	100
N	3.3	е	150
S	4.7	j	220
а	10	n	330

Visual typical example

voltage code and capacitance code are variable with parts number.

[TCT series U case]

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

- (1) voltage code
- (2) capacitance code



Characteristics

Item		Performance	Test condition (Based on JIS C 5101-1, JIS C 5101-3)		
Operating temperature		-55℃~+125℃	Voltage reduction when temperature exceeds		
			+85°C		
Maximum operating)	+85℃			
temperature with no)				
voltage derating.					
Rated voltage(V.D0	C)	Refer to " Standard list ".	at 85℃		
Category voltage(V	.DC)	Refer to " Standard list ".	at 125°C		
Surge voltage(V.D0	C)	Refer to " Standard list ".	at 85°C		
DC leakage current	t	Shall be satisfied the value on " Standard list ".	As per 4.9 JIS C 5101-1-1		
			As per 4.5.1 JIS C 5101-3		
			Voltage : Rated voltage for 5min.		
Capacitance tolera	nce	Shall be satisfied allowance range.	As per 4.7 JIS C 5101-1		
		±20%	As per 4.5.2 JIS C 5101-3		
			Measuring frequency : 120+12Hz		
			Measuring voltage : 0.5Vrms+1.5V.DC		
			Measuring circuit : DC equivalent series circuit		
Tangent of loss and	gle	Shall be satisfied the value on " Standard list ".	As per 4.8 JIS C 5101-1		
(Df,tanδ)			As per 4.5.3 JIS C 5101-3		
			Measuring frequency : 120+12Hz		
			Measuring voltage : 0.5Vrms+1.5V.DC		
Impedance		Shall be satisfied the value on " Standard list ".	Measuring circuit : DC equivalent series circuit As per 4.10 JIS C 5101-1		
Impedance		Shall be satisfied the value off Standard list.	As per 4.5.4 JIS C 5101-3		
			Measuring frequency : 120+12Hz		
			Measuring voltage : 0.5Vrms+1.5V.DC		
			Measuring circuit : DC equivalent series circuit		
Resistance	App-	There should be no significant abnormality.	As per 4.14 JIS C 5101-1		
to soldering	arance	The indications should be clear.	As per 4.6 JIS C 5101-3		
heat	L.C.	Less than 200% of initial limit.	Dip in the solder bath.		
			Solder temp. : 260±10℃		
	⊿c/c	Within +20/-30% of initial limit.	Duration : 5±0.5s		
			Repetition : 1		
	DF	Less than 200% of initial limit.	After the specimens, leave it at room temperature		
	(tanδ)		for over 24h and then measure the sample.		
Temperature	App-	There should be no significant abnormality.	As per 4.16 JIS C 5101-1		
cycle	arance	The indications should be clear.	As per 4.10 JIS C 5101-3		
	L.C.	Less than 200% of initial limit.	Repetition: 5cycles (1cycle:steps1~4)Without discontinuation		
	⊿c/c	Within ±30% of initial limit.	(1cycle:steps1~4)Without discontinuation		
	20,0	Within 150 /0 Of findal fifth.	Temp. Time		
	DF	Less than 200% of initial limit.	1 -55°C±3°C 30±3min		
	(tanδ)	255 Man 25575 of final little	2 Room temp. 3min or less		
	()		3 125±2°C 30±3min		
			4 Room temp. 3min or less		
			After the specimens, leave it at room temperature		
			for over 24h and then measure the sample.		



Item		Performance	Test condition (Based on JIS C 5101-1, JIS C 5101-3)
Moisture	App-	There should be no significant abnormality.	As per 4.22 JIS C 5101-1
resistance	arance	The indications should be clear.	As per 4.12 JIS C 5101-3
	L.C.	Less than 1000% of initial limit.	After leaving the sample under such atmospheric
			condition that the temperature and humidity are
	⊿C/C	Within ±20% of initial limit.	60±2°C and 90~95%(Relative Humidity) ,
			respectively ,for 500±24h leave it at room
	DF	Less than 300% of initial limit.	temperature for over 24h and then measure the
	(tanδ)		sample.
Temperature	Temp : -55°0	Ċ	As per 4.29 JIS C 5101-1
	⊿C/C	Within 0/-30% of initial limit.	As per 4.13 JIS C 5101-3
	tanδ	Shall be satisfied the value on " Standard list ".	
	L.C.	-	
	Temp : +85°	C	
	⊿C/C	Within +15/0% of initial limit.	
	tanδ	Shall be satisfied the value on " Standard list ".	
	L.C.	Less than 1000% of initial limit.	
	Temp : +125		
	⊿C/C	Within +20/0% of initial limit.	
	tanδ	Shall be satisfied the value on " Standard list ".	
	L.C.	Less than 1250% of initial limit.	
Surge voltage	App-	There should be no significant abnormality.	As per 4.26 JIS C 5101-1
· <u>-</u>	arance	The indications should be clear.	As per 4.14 JIS C 5101-3
	L.C.	Less than 200% of initial limit.	Apply the specified serge voltage via the serial resistance of $1k\Omega$ ever 5 ± 0.5 min for 30 ± 5 s each
	⊿C/C	Within ±20% of initial limit.	time in the atmospheric condition of 85±2°C. Repeat this procedure 1,000 times. After the
	DF	Less than 200% of initial limit.	specimens, leave it at room temperature for over
	(tanδ)		24h and then measure the sample.
Loading at	Арр-	There should be no significant abnormality.	As per 4.23 JIS C 5101-1
high	arance	The indications should be clear.	As per 4.15 JIS C 5101-3
temperature	L.C.	Less than 200% of initial limit.	After applying the rated voltage for 1000+36/0h without discontinuation via the serial resistance
	⊿C/C	Within +20/-30% of initial limit.	of 3Ω or less at a temperature of $85\pm2^{\circ}\text{C}$, leave the sample at room temperature/humidity for
	DF	Less than 300% of initial limit.	over 24h and measure the value.
	٥.		



Item		Performance	Test condition		
			(Based on JIS C 5101-1, JIS C 5101-3)		
Terminal	Capa-	The measured value should be stable.	As per 4.35 JIS C 5101-1		
strength	citance		As per 4.9 JIS C 5101-3		
	App-	There should be no significant abnormality.	A force is applied to the terminal until it bends		
	arance		to 1mm and by a prescribed tool maintains the		
			Unit(mm)		
			F(Apply force) R230 F(Apply force) 1.0mm		
Adhesiveness		The terminal should not come off.	As per 4.34 JIS C 5101-1		
			As per 4.8 JIS C 5101-3		
			Apply force of 2N in the two directions shown		
			in he figure below for 10±1s after mounting the		
			terminal on a circuit board.		
			_ Products _		
			Apply force A circuit board		
Dimensions		Refer to "External dimensions"	Measure using a caliper of JIS B 7507 class 2 or higher grade.		
Resistance to solv	ents	The indication should be clear.	As per 4.32 JIS C 5101-1		
			As per 4.18 JIS C 5101-3		
			Dip in the isopropyl alcohol for 30±5s ,		
			at room temperature.		
Solder ability		3/4 or more surface area of the solder	As per 4.15.2 JIS C 5101-1		
-		coated terminal dipped in the soldering	As per 4.7 JIS C 5101-3		
		bath should be covered with the new	Dip speed : 25±2.5mm/s		
		solder.	Pre-treatment : Leave the sample on the boiling		
			(accelerated aging)		
			Solder temp : 245±5℃		
			Duration : 3±0.5s		
			Solder : M705		
			Flux : Rosin 25%		
			IPA 75%		
Vibration	Сара-	Measure value should not fluctuate	As per 4.17 JIS C 5101-1		
	citance	during the measurement.	Frequency: 10~55~10Hz/min.		
	Арр-	There should be no significant abnormality.	Amplitude : 1.5mm		
	arance		Time : 2h each in X,Y and Z directions.		
			Mounting : The terminal is soldered on a		
		•	-		

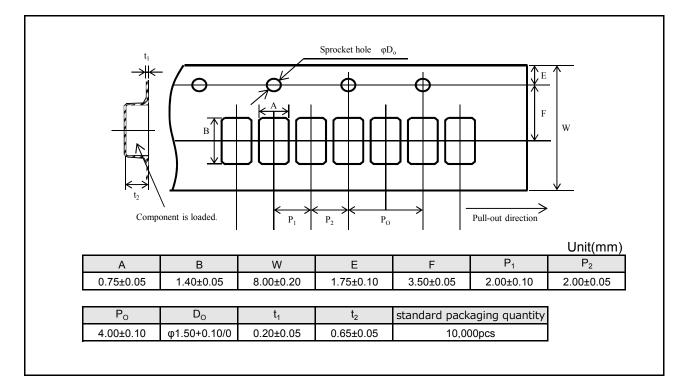


Standard products list

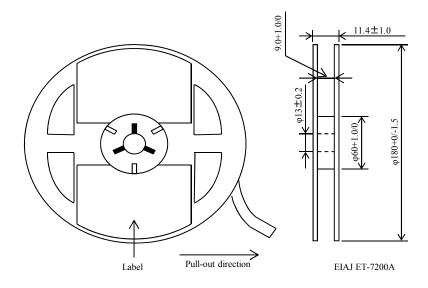
	Rated	Category	Surge	Сар.	Tole-	Leakage		tanδ		Impedance
	voltage	voltage	voltage		rance	current				
Part No	85℃	105℃	85℃	120Hz		25℃		120Hz		100kHz
Part NO						1WV	-55℃	25℃	125℃	
						5min		85℃		
	(V)	(V)	(V)	(µF)	(%)	(µA)	(%)	(%)	(%)	(Ω)
TCTU0E156M8R-V1	2.5	1.6	2.5	15	±20	7.5	90	50	60	25.0
TCTU0G475M8R	4	2.5	5	4.7	±20	1.9	35	20	25	20.0
☆TCTU0G106M8R-V1	4	2.5	4	10	±20	8.0	90	50	60	25.0
TCTU0J474M8R	6.3	4	8	0.47	±20	0.5	35	20	25	35.0
TCTU0J105M8R	6.3	4	8	1.0	±20	0.7	35	20	25	20.0
TCTU0J225M8R	6.3	4	8	2.2	±20	1.4	35	20	25	20.0
TCTU0J475M8R	6.3	4	8	4.7	±20	3.0	90	50	60	25.0
☆TCTU1A105M8R	10	8	13	1.0	±20	1.0	35	20	25	20.0
☆TCTU1C105M8R-V1	16	10	16	1.0	±20	1.6	90	50	60	25.0
TCTU1D334M8R	20	13	26	0.33	±20	0.7	35	20	25	30.0

^{☆ =} Under development

Packaging specifications



Reel dimensions



Notice

Precaution on using ROHM Products

Our Products are designed and manufactured for application in ordinary electronic equipment (such as AV equipment, OA equipment, telecommunication equipment, home electronic appliances, amusement equipment, etc.). If you intend to use our Products in devices requiring extremely high reliability (such as medical equipment (Note 1), transport equipment, traffic equipment, aircraft/spacecraft, nuclear power controllers, fuel controllers, car equipment including car accessories, safety devices, etc.) and whose malfunction or failure may cause loss of human life, bodily injury or serious damage to property ("Specific Applications"), please consult with the ROHM sales representative in advance. Unless otherwise agreed in writing by ROHM in advance, ROHM shall not be in any way responsible or liable for any damages, expenses or losses incurred by you or third parties arising from the use of any ROHM's Products for Specific Applications.

(Note1) Medical Equipment Classification of the Specific Applications

1 /			
JAPAN	USA	EU	CHINA
CLASSⅢ	CLASSIII	CLASS II b	CLASSIII
CLASSIV	CLASSIII	CLASSIII	CLASSIII

- 2. ROHM designs and manufactures its Products subject to strict quality control system. However, semiconductor products can fail or malfunction at a certain rate. Please be sure to implement, at your own responsibilities, adequate safety measures including but not limited to fail-safe design against the physical injury, damage to any property, which a failure or malfunction of our Products may cause. The following are examples of safety measures:
 - [a] Installation of protection circuits or other protective devices to improve system safety
 - [b] Installation of redundant circuits to reduce the impact of single or multiple circuit failure
- 3. Our Products are designed and manufactured for use under standard conditions and not under any special or extraordinary environments or conditions, as exemplified below. Accordingly, ROHM shall not be in any way responsible or liable for any damages, expenses or losses arising from the use of any ROHM's Products under any special or extraordinary environments or conditions. If you intend to use our Products under any special or extraordinary environments or conditions (as exemplified below), your independent verification and confirmation of product performance, reliability, etc, prior to use, must be necessary:
 - [a] Use of our Products in any types of liquid, including water, oils, chemicals, and organic solvents
 - [b] Use of our Products outdoors or in places where the Products are exposed to direct sunlight or dust
 - [c] Use of our Products in places where the Products are exposed to sea wind or corrosive gases, including Cl₂, H₂S, NH₃, SO₂, and NO₂
 - [d] Use of our Products in places where the Products are exposed to static electricity or electromagnetic waves
 - [e] Use of our Products in proximity to heat-producing components, plastic cords, or other flammable items
 - [f] Sealing or coating our Products with resin or other coating materials
 - [g] Use of our Products without cleaning residue of flux (Exclude cases where no-clean type fluxes is used. However, recommend sufficiently about the residue.); or Washing our Products by using water or water-soluble cleaning agents for cleaning residue after soldering
 - [h] Use of the Products in places subject to dew condensation
- 4. The Products are not subject to radiation-proof design.
- 5. Please verify and confirm characteristics of the final or mounted products in using the Products.
- 6. In particular, if a transient load (a large amount of load applied in a short period of time, such as pulse, is applied, confirmation of performance characteristics after on-board mounting is strongly recommended. Avoid applying power exceeding normal rated power; exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
- 7. De-rate Power Dissipation depending on ambient temperature. When used in sealed area, confirm that it is the use in the range that does not exceed the maximum junction temperature.
- 8. Confirm that operation temperature is within the specified range described in the product specification.
- 9. ROHM shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.

Precaution for Mounting / Circuit board design

- 1. When a highly active halogenous (chlorine, bromine, etc.) flux is used, the residue of flux may negatively affect product performance and reliability.
- 2. In principle, the reflow soldering method must be used on a surface-mount products, the flow soldering method must be used on a through hole mount products. If the flow soldering method is preferred on a surface-mount products, please consult with the ROHM representative in advance.

For details, please refer to ROHM Mounting specification

Precautions Regarding Application Examples and External Circuits

- 1. If change is made to the constant of an external circuit, please allow a sufficient margin considering variations of the characteristics of the Products and external components, including transient characteristics, as well as static characteristics.
- 2. You agree that application notes, reference designs, and associated data and information contained in this document are presented only as guidance for Products use. Therefore, in case you use such information, you are solely responsible for it and you must exercise your own independent verification and judgment in the use of such information contained in this document. ROHM shall not be in any way responsible or liable for any damages, expenses or losses incurred by you or third parties arising from the use of such information.

Precaution for Electrostatic

This Product is electrostatic sensitive product, which may be damaged due to electrostatic discharge. Please take proper caution in your manufacturing process and storage so that voltage exceeding the Products maximum rating will not be applied to Products. Please take special care under dry condition (e.g. Grounding of human body / equipment / solder iron, isolation from charged objects, setting of lonizer, friction prevention and temperature / humidity control).

Precaution for Storage / Transportation

- 1. Product performance and soldered connections may deteriorate if the Products are stored in the places where:
 - [a] the Products are exposed to sea winds or corrosive gases, including Cl₂, H₂S, NH₃, SO₂, and NO₂
 - [b] the temperature or humidity exceeds those recommended by ROHM
 - [c] the Products are exposed to direct sunshine or condensation
 - [d] the Products are exposed to high Electrostatic
- Even under ROHM recommended storage condition, solderability of products out of recommended storage time period
 may be degraded. It is strongly recommended to confirm solderability before using Products of which storage time is
 exceeding the recommended storage time period.
- 3. Store / transport cartons in the correct direction, which is indicated on a carton with a symbol. Otherwise bent leads may occur due to excessive stress applied when dropping of a carton.
- 4. Use Products within the specified time after opening a humidity barrier bag. Baking is required before using Products of which storage time is exceeding the recommended storage time period.

Precaution for Product Label

A two-dimensional barcode printed on ROHM Products label is for ROHM's internal use only.

Precaution for Disposition

When disposing Products please dispose them properly using an authorized industry waste company.

Precaution for Foreign Exchange and Foreign Trade act

Since concerned goods might be fallen under listed items of export control prescribed by Foreign exchange and Foreign trade act, please consult with ROHM in case of export.

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- 2. All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using ROHM's Products, please confirm the latest information with a ROHM sales representative.
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TCTU1D334M8R - Web Page

Distribution Inventory

Part Number	TCTU1D334M8R
Package	TCTU
Unit Quantity	10000
Minimum Package Quantity	10000
Packing Type	Taping
Constitution Materials List	inquiry
RoHS	Yes

单击下面可查看定价,库存,交付和生命周期等信息

>>ROHM Semiconductor(罗姆)