Series: **TES**
Type: **T**

Surface Mount Type Tantalum Solid Electrolytic Capacitors

Japan

Surface mount type | Low profile

■ Features

- Low profile
  Height: H=1.2 mm max.
  Product line up of size Z (2.0×1.25×1.2)

■ Recommended Applications

- Handy headphones stereo, pager, camcorder.

■ Specifications

Operating Temp. Range	–55 to +125 °C
Rated W.V. Range	4 to 20 V.DC
Nominal Cap. Range	0.1 to 3.3 µF
Capacitance Tolerance	±20 % (120 Hz/+20 °C)
DC Leakage Current	I ≦ 0.5 (µA) after 2 minutes application of rated working voltage at +20 °C
tan δ	Size P: ≦ 3.3 µF ····· 0.04 max. Size Z: ≦ 2.2 µF ····· 0.10 max. (120 Hz/+20 °C)
Resistance to Soldering Heat	The capacitor shall withstand dipping into solder for 5±1 seconds at +260±5 °C
Moisture Resistance	After 500 hours exposure at +40 °C and 90 to 95 % R.H. without load, the capacitor shall meet the following limits.

Capacitance change	±10 % of initial measured value
tan δ	≦ Initial specified value
DC leakage current	≦ Initial specified value

Endurance	After 2000 hours application of rated DC working voltage at +85 °C or derated voltage at +125 °C, the capacitor shall meet the following limits.

Capacitance change	±10 % of initial measured value
tan δ	≦ Initial specified value
DC leakage current	≦ 125 % of initial specified value

■ Explanation of Part Numbers

1	2	3	4	5	6	7	8	9	10	11	12
E	C	S	T							R	

Product Code | Style | R.W. Voltage Code | Size Code | N.Capacitance Code | Option

W.V. code	0G	0J	1A	1C	1D
W.V.(V)	4	6.3	10	16	20

Z,P

Example:

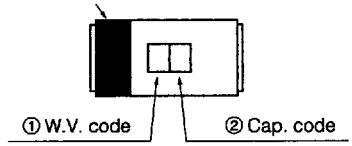
Capacitance code	Capacitance
474	470000 pF=0.47 µF
105	1000000 pF=1 µF

Packaging	Polarity
Reel taping	⊖ ⊕ Tape running direction

■ Marking

●Size Z

Polarity bar (+side)



① W.V. code

(V)	4	6.3	10	16
(code)	G	J	A	C

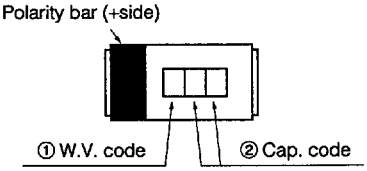
② Capacitance code

(µF)	1	1.5	2.2	3.3	0.47	0.68
(code)	A	E	J	N	S	W

GE: 4 V 1.5 µF

●Size P

Polarity bar (+side)



① W.V. code

(V)	4	6.3	10	16	20
(code)	G	J	A	C	D

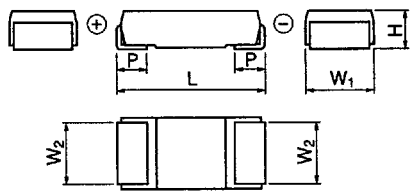
② Capacitance code

(µF)	1	1.5	2.2	3.3	4.7	6.8
(code)	A	E	J	N	S	W

Multiplier	10^5	10^6
Second code	5	6

A6: 1.0×10^6 pF(1.0 µF)

■ Dimensions in mm (not to scale)



Size code	L±0.2	W_1±0.20	W_2±0.1	H max.	P
Z	2.0	1.25	0.9	1.2	0.5±0.2
P	3.2	1.6	1.2	1.2	0.8±0.3

■ Case size

Cap.(µF) \ W.V.(V.DC)	4 (0G)	6.3 (0J)	10 (1A)	16 (1C)	20 (1D)
0.10 (104)					P
0.15 (154)					P
0.22 (224)					P
0.33 (334)					P
0.47 (474)				Z	P
0.68 (684)				P, Z	P
1.0 (105)			P, Z	P	
1.5 (155)		P, Z	P		
2.2 (225)	P, Z	P			
3.3 (335)	P				

Note: 1. ( ) shows W.V. and capacitance code.
2. When selecting W.V., see the page 153.
3. Other rating upon request (voltage, capacitance, tolerance, size)