

Surface Mount Type

Series: TES

- Features Low profile
Height: H=1.2mm max.

Japan
China



■ Specifications

Category temp. range	-55 to 125°C	
Rated W.V. Range	4 to 16 V .DC	
Nominal Cap. Range	0.47 to 15 μ F	
Capacitance Tolerance	±20 % (120Hz/20°C)	
DC Leakage Current	I ≤ 0.01CV or 0.5 (μA) after 2 minutes application of rated working voltage at 20°C (Whichever is greater)	
tanδ	Please see the attached standard products list	
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
	tanδ.	≤ initial specified value, miniaturized size : ≤ 150% of 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
	tanδ.	≤ initial specified value
	DC leakage current	≤ 125 % of initial specified value

Ta
TES

■ Marking

● Size Z

Polarity bar (+ side)

W.V.code Cap. code

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

Capacitance(μF)	0.47	0.68	1	1.5	2.2	3.3	4.7	6.8	10	15
1st code	<u>S</u>	<u>W</u>	A	E	J	N	S	W	<u>A</u>	<u>E</u>

(Ex.) JE : 6.3V 1.5μF

■ Dimensions in mm (not to scale)

EIA code	Size code	L±0.2	W1±0.2	W2±0.1	H max.	P
2012	Z	2.0	1.25	0.9	1.2	0.5±0.2

■ Case size

W.V.(V.DC) Cap(μF)	4(0G)		6.3(0J)		10(1A)		16(1C)	
	Standard	Miniature	Standard	Miniature	Standard	Miniature	Standard	Miniature
0.47 (474)							Z	
0.68 (684)							Z	
1.0 (105)					Z			Z
1.5 (155)			Z			Z		
2.2 (225)	Z		Z			Z		
3.3 (335)	Z					Z		
4.7 (475)				Z		Z		
6.8 (685)		Z		Z				
10 (106)		Z		Z				
15 (156)		Z						

- Note : 1. () indicates W.V. and capacitance code.
 2. When selecting W.V. refer to page 20.
 3. We recommend current sizes shown in the above table for new design, but conventional case size is available on request.
 4. Other rating upon request (voltage, capacitance, tolerance)

■ Standard Products

W.V.	Cap. (±20%) (μF)	Case Size		Specification			Part No.	Min.PackagingQty
		L x W x H (mm)	Size Code	L.C (μA)	tan δ (120Hz) (20°C)	ESR (100kHz) (20°C) (Ω)		Taping (pcs)
4	2.2	2.0x1.25x1.2	Z	0.5	0.10	25	ECST0GZ225R	3000
	3.3	2.0x1.25x1.2	Z	0.5	0.15	20	ECST0GZ335R	3000
	6.8	2.0x1.25x1.2	Z	0.5	0.20	20	ECST0GZ685R	3000
	10	2.0x1.25x1.2	Z	0.5	0.20	15	ECST0GZ106R	3000
	15	2.0x1.25x1.2	Z	0.6	0.20	15	ECST0GZ156R	3000
6.3	1.5	2.0x1.25x1.2	Z	0.5	0.10	25	ECST0JZ155R	3000
	2.2	2.0x1.25x1.2	Z	0.5	0.12	20	ECST0JZ225R	3000
	4.7	2.0x1.25x1.2	Z	0.5	0.20	20	ECST0JZ475R	3000
	6.8	2.0x1.25x1.2	Z	0.5	0.20	15	ECST0JZ685R	3000
	10	2.0x1.25x1.2	Z	0.7	0.20	15	ECST0JZ106R	3000
10	1	2.0x1.25x1.2	Z	0.5	0.10	25	ECST1AZ105R	3000
	1.5	2.0x1.25x1.2	Z	0.5	0.12	20	ECST1AZ155R	3000
	2.2	2.0x1.25x1.2	Z	0.5	0.20	15	ECST1AZ225R	3000
	3.3	2.0x1.25x1.2	Z	0.5	0.20	15	ECST1AZ335R	3000
	4.7	2.0x1.25x1.2	Z	0.5	0.20	15	ECST1AZ475R	3000
16	0.47	2.0x1.25x1.2	Z	0.5	0.10	28	ECST1CZ474R	3000
	0.68	2.0x1.25x1.2	Z	0.5	0.10	25	ECST1CZ684R	3000
	1	2.0x1.25x1.2	Z	0.5	0.20	20	ECST1CZ105R	3000