Surface Mount Type

Series: TE Type : T

■ Features Standard

Japan
China

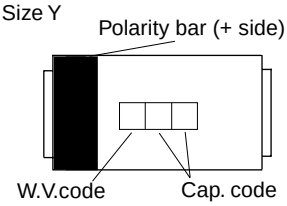


■ Specifications

Category temp. range	-55 to 125°C	
Rated W.V. Range	4 to 35 V .DC	
Nominal Cap. Range	0.15 to 330 µ F	
Capacitance Tolerance	±20 % (120Hz/20°C)	
DC Leakage Current	I ≦ 0.01 CV 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, miniatured size: ≦ 150% of 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
	tanδ	≦ initial specified value
	DC leakage current	≦ 125 % of initial specified value

■ Marking

● Size Y



W.V. code

W.V. (V)	4	6.3	10	16	20	25	35
code	G	J	A	C	D	E	V

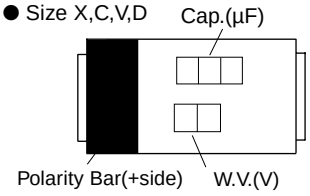
Capacitance code

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

Multiplier	10^5	10^6	10^7
2nd code	5	6	7

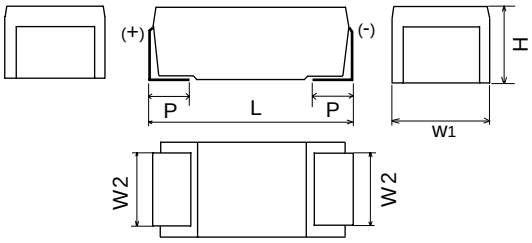
(Ex.) A6: 1.0 x 10^6 pF(1.0µF)
J5: 2.2 x 10^5 pF(0.22µF)

● Size X,C,V,D



❇ (for 6.3W.V. abbreviated to 6 V)

■ Dimensions in mm (not to scale)



EIA code	Size code	L±0.2	W1±0.2	W2±0.1	H±0.2	P±0.3
3216	Y	3.2	1.6	1.2	1.6	0.8
3528	X	3.5	2.8	2.2	1.9	0.8
6032	C	6.0	3.2	2.2	2.5	1.3
5846	V	5.8	4.6	2.4	3.2	1.3
7343	D	7.3	4.3	2.4	2.8	1.3

❇ Each case side has different tereminal configuration

■ Case size

W.V.(V.DC) / Cap.(µF)	4(0G)		6.3(0J)		10(1A)		16(1C)		20(1D)		25(1E)		35(1H)
	Standard	Miniature	Standard	Miniature	Standard	Miniature	Standard	Miniature	Standard	Miniature	Standard	Miniature	Standard
0.15 to 0.33													Y
0.47 (474)											Y		Y
0.68 (684)									Y				Y
1.0 (105)							Y				Y		Y
1.5 (155)							Y		Y		Y		X
2.2 (225)					Y		Y		Y		X	Y	X
3.3 (335)			Y		Y		Y		X	Y	X		X
4.7 (475)	Y		Y		Y		Y		X	Y	X		C
6.8 (685)	Y		Y		Y		X	Y	X		C		C
10 (106)	Y		Y		X	Y	X		C	X	C		D,V
15 (156)	Y		X	Y	X		C	X	C		D,V		D
22 (226)	X	Y	X	Y	C	X	C		D,V	C	D		
33 (336)	X		C	X	C	X	D,V	C	D,V				
47 (476)	C	X	C	X	D,V	C	D,V						
68 (686)	C		D,V	C	D,V		D						
100 (107)	D,V	C	D,V	C	D								
150 (157)	D,V		D			D							
220 (227)	D			D									
330 (337)		D											

Note : 1. ( )indicates the 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, size)

Rev.02/04

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■Standard Products

W.V. (V)	Cap. (±20%) (µF)	Case Size L x W x H (mm)	Case Size Size Code	Specification L.C (µA)	Specification tan δ (120Hz) (20°C)	Specification ESR (100kHz) (20°C) (Ω)	Part No.	Min.Packaging Q'ty Taping (pcs)
4	4.7	3.2x1.6x1.6	Y	0.5	0.06	8.0	ECST0GY475R	2000
	6.8	3.2x1.6x1.6	Y	0.5	0.06	6.0	ECST0GY685R	2000
	10	3.2x1.6x1.6	Y	0.5	0.06	4.0	ECST0GY106R	2000
	15	3.2x1.6x1.6	Y	0.6	0.06	4.0	ECST0GY156R	2000
	22	3.2x1.6x1.6	Y	0.9	0.06	3.5	ECST0GY226R	2000
		3.5x2.8x1.9	X	0.9	0.06	3.0	ECST0GX226R	2000
	33	3.5x2.8x1.9	X	1.4	0.06	2.8	ECST0GX336R	2000
	47	3.5x2.8x1.9	X	1.9	0.06	2.4	ECST0GX476R	2000
		6.0x3.2x2.5	C	1.9	0.06	1.8	ECST0GC476R	750
	68	6.0x3.2x2.5	C	2.8	0.06	1.6	ECST0GC686R	750
	100	6.0x3.2x2.5	C	4.0	0.08	1.2	ECST0GC107R	750
		5.8x4.6x3.2	V	4.0	0.08	1.0	ECST0GV107R	500
		7.3x4.3x2.8	D	4.0	0.08	0.8	ECST0GD107R	750
	150	5.8x4.6x3.2	V	6.0	0.08	1.0	ECST0GV157R	500
		7.3x4.3x2.8	D	6.0	0.08	0.8	ECST0GD157R	750
	220	7.3x4.3x2.8	D	8.8	0.12	0.7	ECST0GD227R	750
	330	7.3x4.3x2.8	D	13.2	0.14	0.7	ECST0GD337R	750
6.3	3.3	3.2x1.6x1.6	Y	0.5	0.04	7.0	ECST0JY335R	2000
	4.7	3.2x1.6x1.6	Y	0.5	0.06	6.0	ECST0JY475R	2000
	6.8	3.2x1.6x1.6	Y	0.5	0.06	5.0	ECST0JY685R	2000
	10	3.2x1.6x1.6	Y	0.7	0.06	4.0	ECST0JY106R	2000
	15	3.2x1.6x1.6	Y	1.0	0.06	3.5	ECST0JY156R	2000
		3.5x2.8x1.9	X	1.0	0.06	2.5	ECST0JX156R	2000
	22	3.2x1.6x1.6	Y	1.4	0.08	3.0	ECST0JY226R	2000
		3.5x2.8x1.9	X	1.4	0.06	2.5	ECST0JX226R	2000
	33	3.5x2.8x1.9	X	2.1	0.06	2.2	ECST0JX336R	2000
		6.0x3.2x2.5	C	2.1	0.06	1.8	ECST0JC336R	750
	47	3.5x2.8x1.9	X	3.0	0.06	2.0	ECST0JX476R	2000
		6.0x3.2x2.5	C	3.0	0.06	1.6	ECST0JC476R	750
	68	6.0x3.2x2.5	C	4.3	0.06	1.2	ECST0JC686R	750
		5.8x4.6x3.2	V	4.3	0.06	1.0	ECST0JV686R	500
		7.3x4.3x2.8	D	4.3	0.06	0.8	ECST0JD686R	750
	100	6.0x3.2x2.5	C	6.3	0.08	1.2	ECST0JC107R	750
		5.8x4.6x3.2	V	6.3	0.08	1.0	ECST0JV107R	500
		7.3x4.3x2.8	D	6.3	0.08	0.8	ECST0JD107R	750
	150	7.3x4.3x2.8	D	9.5	0.08	0.7	ECST0JD157R	750
	220	7.3x4.3x2.8	D	13.9	0.12	0.7	ECST0JD227R	750
10	2.2	3.2x1.6x1.6	Y	0.5	0.04	7.0	ECST1AY225R	2000
	3.3	3.2x1.6x1.6	Y	0.5	0.04	5.5	ECST1AY335R	2000
	4.7	3.2x1.6x1.6	Y	0.5	0.06	5.0	ECST1AY475R	2000
	6.8	3.2x1.6x1.6	Y	0.7	0.06	4.0	ECST1AY685R	2000
	10	3.2x1.6x1.6	Y	1.0	0.06	3.0	ECST1AY106R	2000
		3.5x2.8x1.9	X	1.0	0.06	2.5	ECST1AX106R	2000
	15	3.5x2.8x1.9	X	1.5	0.06	2.8	ECST1AX156R	2000
	22	3.5x2.8x1.9	X	2.2	0.06	2.4	ECST1AX226R	2000
		6.0x3.2x2.5	C	2.2	0.06	1.8	ECST1AC226R	750

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■ Standard Products

W.V. (V)	Cap. (±20%) (µF)	Case Size LxWxH (mm)	Case Size Size Code	Specification L.C (µA)	Specification tan δ (120Hz) (20°C)	Specification ESR (100kHz) (20°C) (Ω)	Part No.	Min.Packaging Q'ty Taping (pcs)
10	33	3.5x2.8x1.9	X	3.3	0.08	1.8	ECST1AX336R	2000
		6.0x3.2x2.5	C	3.3	0.06	1.6	ECST1AC336R	750
	47	6.0x3.2x2.5	C	4.7	0.06	1.2	ECST1AC476R	750
		5.8x4.6x3.2	V	4.7	0.06	1.0	ECST1AV476R	500
		7.3x4.3x2.8	D	4.7	0.06	0.8	ECST1AD476R	750
	68	5.8x4.6x3.2	V	6.8	0.06	1.0	ECST1AV686R	500
		7.3x4.3x2.8	D	6.8	0.06	0.8	ECST1AD686R	750
	100	7.3x4.3x2.8	D	10.0	0.08	0.7	ECST1AD107R	750
	150	7.3x4.3x2.8	D	15.0	0.10	0.7	ECST1AD157R	750
16	1	3.2x1.6x1.6	Y	0.5	0.04	10.0	ECST1CY105R	2000
	1.5	3.2x1.6x1.6	Y	0.5	0.04	8.0	ECST1CY155R	2000
	2.2	3.2x1.6x1.6	Y	0.5	0.04	6.0	ECST1CY225R	2000
	3.3	3.2x1.6x1.6	Y	0.6	0.04	5.0	ECST1CY335R	2000
	4.7	3.2x1.6x1.6	Y	0.8	0.06	4.0	ECST1CY475R	2000
	6.8	3.2x1.6x1.6	Y	1.1	0.08	5.0	ECST1CY685R	2000
		3.5x2.8x1.9	X	1.1	0.06	2.5	ECST1CX685R	2000
	10	3.5x2.8x1.9	X	1.6	0.06	2.8	ECST1CX106R	2000
	15	3.5x2.8x1.9	X	2.4	0.06	2.5	ECST1CX156R	2000
		6.0x3.2x2.5	C	2.4	0.06	1.8	ECST1CC156R	750
	22	6.0x3.2x2.5	C	3.6	0.06	1.6	ECST1CC226R	750
	33	6.0x3.2x2.5	C	5.3	0.06	1.2	ECST1CC336R	750
		5.8x4.6x3.2	V	5.3	0.06	1.0	ECST1CV336R	500
		7.3x4.3x2.8	D	5.3	0.06	0.8	ECST1CD336R	750
	47	5.8x4.6x3.2	V	7.6	0.06	1.0	ECST1CV476R	500
		7.3x4.3x2.8	D	7.6	0.06	0.8	ECST1CD476R	750
	68	7.3x4.3x2.8	D	10.9	0.06	0.7	ECST1CD686R	750
20	0.68	3.2x1.6x1.6	Y	0.5	0.04	12.0	ECST1DY684R	2000
	1.5	3.2x1.6x1.6	Y	0.5	0.04	6.5	ECST1DY155R	2000
	2.2	3.2x1.6x1.6	Y	0.5	0.04	6.0	ECST1DY225R	2000
	3.3	3.2x1.6x1.6	Y	0.7	0.04	5.5	ECST1DY335R	2000
		3.5x2.8x1.9	X	0.7	0.04	3.0	ECST1DX335R	2000
	4.7	3.2x1.6x1.6	Y	1.0	0.08	5.0	ECST1DY475R	2000
		3.5x2.8x1.9	X	1.0	0.06	3.0	ECST1DX475R	2000
	6.8	3.5x2.8x1.9	X	1.4	0.06	2.5	ECST1DX685R	2000
	10	3.5x2.8x1.9	X	2.0	0.06	2.1	ECST1DX106R	2000
		6.0x3.2x2.5	C	2.0	0.06	1.8	ECST1DC106R	750
	15	6.0x3.2x2.5	C	3.0	0.06	1.7	ECST1DC156R	750
	22	6.0x3.2x2.5	C	4.4	0.08	1.2	ECST1DC226R	750
		5.8x4.6x3.2	V	4.4	0.06	1.0	ECST1DV226R	500
		7.3x4.3x2.8	D	4.4	0.06	0.8	ECST1DD226R	750
	33	5.8x4.6x3.2	V	6.6	0.06	0.9	ECST1DV336R	500
		7.3x4.3x2.8	D	6.6	0.06	0.7	ECST1DD336R	750
25	0.47	3.2x1.6x1.6	Y	0.5	0.04	14.0	ECST1EY474R	2000
	1	3.2x1.6x1.6	Y	0.5	0.04	8.0	ECST1EY105R	2000
	1.5	3.2x1.6x1.6	Y	0.5	0.04	7.5	ECST1EY155R	2000

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25	2.2	3.2x1.6x1.6	Y	0.6	0.06	7.0	ECST1EY225R	2000
		3.5x2.8x1.9	X	0.6	0.04	4.5	ECST1EX225R	2000
	3.3	3.5x2.8x1.9	X	0.9	0.04	3.5	ECST1EX335R	2000
	4.7	3.5x2.8x1.9	X	1.2	0.06	2.8	ECST1EX475R	2000
	6.8	6.0x3.2x2.5	C	1.7	0.06	1.9	ECST1EC685R	750
	10	6.0x3.2x2.5	C	2.5	0.06	1.5	ECST1EC106R	750
	15	5.8x4.6x3.2	V	3.8	0.06	1.2	ECST1EV156R	500
		7.3x4.3x2.8	D	3.8	0.06	1.0	ECST1ED156R	750
	22	7.3x4.3x2.8	D	5.5	0.06	0.7	ECST1ED226R	750
35	0.15	3.2x1.6x1.6	Y	0.5	0.04	19.0	ECST1VY154R	2000
	0.22	3.2x1.6x1.6	Y	0.5	0.04	18.0	ECST1VY224R	2000
	0.33	3.2x1.6x1.6	Y	0.5	0.04	15.0	ECST1VY334R	2000
	0.47	3.2x1.6x1.6	Y	0.5	0.04	12.0	ECST1VY474R	2000
	0.68	3.2x1.6x1.6	Y	0.5	0.04	8.0	ECST1VY684R	2000
	1	3.2x1.6x1.6	Y	0.5	0.04	7.5	ECST1VY105R	2000
	1.5	3.5x2.8x1.9	X	0.6	0.04	5.0	ECST1VX155R	2000
	2.2	3.5x2.8x1.9	X	0.8	0.04	4.0	ECST1VX225R	2000
	3.3	3.5x2.8x1.9	X	1.2	0.04	3.5	ECST1VX335R	2000
	4.7	6.0x3.2x2.5	C	1.7	0.06	2.0	ECST1VC475R	750
	6.8	6.0x3.2x2.5	C	2.4	0.06	1.8	ECST1VC685R	750
	10	5.8x4.6x3.2	V	3.5	0.06	1.2	ECST1VV106R	500
		7.3x4.3x2.8	D	3.5	0.06	1.0	ECST1VD106R	750
	15	7.3x4.3x2.8	D	5.3	0.06	0.8	ECST1VD156R	750

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