

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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TES

Panasonic

Surface Mount Type

Series: TES

■ Features Low profil

Low profile Height: H=1.2mm max.

Japan China

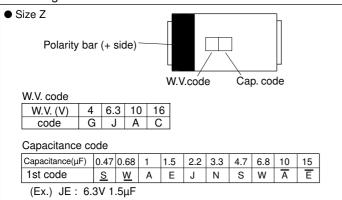




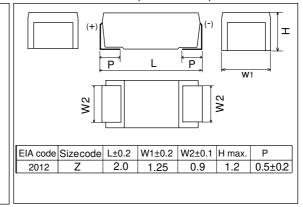
■ Specifications

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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					
	After 500 hours exposure at 40 °C and 90 to 95 % R.H. without load, the capacitor shall meet the following limits.					
Moisture Resistance	Capacitance change	±10% of initial measured value				
	tanδ.	≤ initial specified value, miniatured size : ≤ 150% of initial specified value.				
	DC leakage current	≤ initial specified value				
	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.					
Endurance	Capacitance change	±10% of initial measured value				
	tanδ.	≤ initial specified value				
	DC leakage current	≤ 125 % of initial specified value				

■ Marking



■ Dimensions in mm (not to scale)



■ Case size

W.V.(V.DC)	4(0G)		6.3(0J)		10(1A)		16(1C)	
Cap(μF)	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)

Rev.02/04

Panasonic

■ Standard Products

		Case Size		Specification			Part No.	Min.PackagingQ'ty
	Cap. (±20%)	LxWxH	Size Code	L.C	tan δ (120Hz) (20°C)	ESR (100kHz) (20°C)		Taping
	(μF)	(mm)		(μΑ)	(20 0)	(Ω)		(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