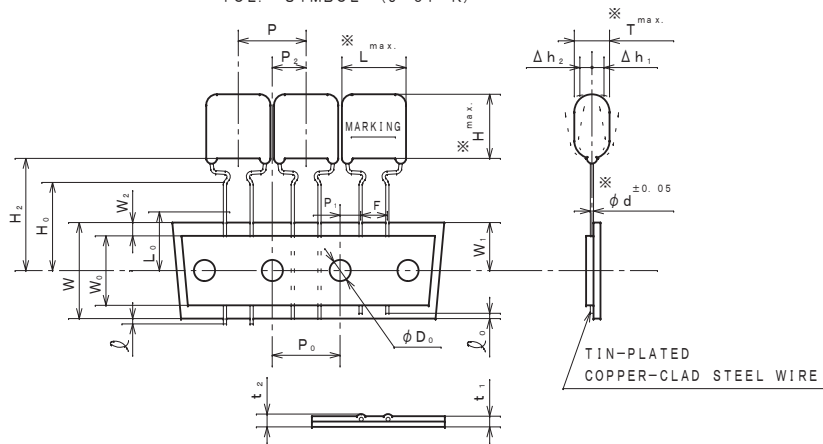


ITEM CODE	RATED VOLTAGE	CAP. (μF)	DIMENSIONS			
			※ L	※ T	※ H	※ d
ECQE2103 () B3	250VDC	0.01	7.9	4.2	7.1	0.5
※ 2123 () B3	※	0.012	※	※	※	※
※ 2153 () B3	※	0.015	※	※	※	※
※ 2183 () B3	※	0.018	※	4.3	7.2	※
※ 2223 () B3	※	0.022	※	※	※	※
※ 2273 () B3	※	0.027	※	※	※	※
※ 2333 () B3	※	0.033	※	※	※	※
※ 2393 () B3	※	0.039	※	4.5	7.4	※
※ 2473 () B3	※	0.047	※	※	※	※
※ 2563 () B3	※	0.056	※	4.7	7.7	※
※ 2683 () B3	※	0.068	※	5.1	8.0	※
※ 2823 () B3	※	0.082	※	5.4	8.6	※
※ 2104 () B3	※	0.1	※	5.9	9.0	※
※ 2124 () B3	※	0.12	※	5.7	10.6	※
※ 2154 () B3	※	0.15	※	6.3	11.2	※
※ 2184 () B3	※	0.18	10.3	5.0	9.7	※
※ 2224 () B3	※	0.22	※	5.4	10.1	※
※ 2274 () B3	※	0.27	※	5.9	10.8	※
※ 2334 () B3	※	0.33	※	6.4	11.3	※
※ 2394 () B3	※	0.39	12.3	5.7	10.9	0.6
※ 2474 () B3	※	0.47	※	6.2	11.4	※
※ 2564 () B3	※	0.56	※	6.7	11.9	※
※ 2684 () B3	※	0.68	※	7.3	12.7	※

—TOL. SYMBOL (J or K)



CONSTRUCTION

The capacitor is of non-inductive construction, wound with metallized polyester film dielectric.
The capacitor is enclosed in non-combustible epoxy resin and has two leads.

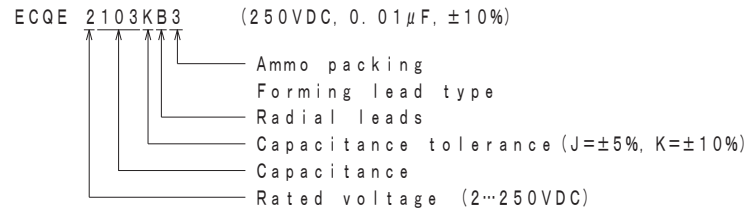
MARKING

Marking comprises capacitance, capacitance tolerance, rated voltage and date code.

PROPERTIES

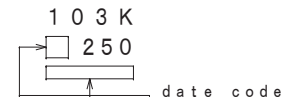
Capacitance : See table at 1kHz.
 Capacitance tolerance : $\pm 5\%$ (J), $\pm 10\%$ (K) at 1kHz.
 Rated voltage : 250VDC Δ (Derating of rated voltage by 1.25%/°C at more than 85°C)
 Withstand voltage (terminal-terminal) : 250VDC \times 150% for 60s
 Insulation resistance : $\geq 9000M\Omega$ ($C \leq 0.33\mu F$) at 100VDC, 20°C for 60s
 : $\geq 3000M\Omega \cdot \mu F$ ($C > 0.33\mu F$) at 100VDC, 20°C for 60s
 Dissipation factor : $\leq 1.0\%$ at 1kHz, 20°C
 Operating temperature range : Δ From -40°C to +105°C (including temperature rise on unit surface)

ITEM CODE NUMBER STRUCTURE



SYMBOL	ITEM	DIMENSION	REMARKS
P	Pitch of component	12.7 \pm 1.0	Tilt of component and curvature of leads shall be included.
P ₀	Feed hole pitch	12.7 \pm 0.2	
P ₁	Feed hole center to lead	3.85 \pm 0.5	
P ₂	Hole center to comp. center	6.35 \pm 1.3	Tilt of component due to curvature of leads shall be included.
F	Lead-to-lead distance	5.0 \pm 0.2	
$\Delta h_{1,2}$	Component alignment	0~2.0	Tilt of component due to curvature of leads shall be included.
W	Paper backing width	18.0 \pm 0.5	
W ₀	Adhesive tape width	9.5min.	The hold down tape shall not protrude beyond the carrier tape.
W ₁	Hole position	9.0 \pm 0.5	
W ₂	Hold-down tape position	0~3.0	
H ₂	Component height	22.0 \pm 0.75	
H ₀	Lead-wire clinch height	16.0 \pm 0.5	
ϕ	Lead-wire protrusion	0max.	
ϕ_0	Lead-wire depression	7.0max.	
ϕD_0	Feed hole diameter	4.0 \pm 0.2	
t ₁	Total tape thickness	0.7 \pm 0.2	Total thickness including the hold down tape.
t ₂	Total thickness	1.5max.	
L ₀	Length of snapped lead	11.0max.	

MARKING EXAMPLE



ALTERATION

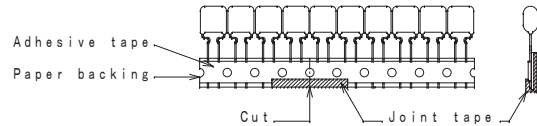
ISSUE	DESCRIPTION	DATE
Δ	Modification	Aug. 27 1999
Δ	Company name changed	Oct. 1 2004
Δ	Company name changed	Apr. 1 2005
Δ	Company name changed	Apr. 1 2006
Δ	Correction: category temperature range (-40°C~+85°C→-40°C~+105°C) Addition: rated voltage (Derating of rated voltage by 1.25%/°C at more than 85°C) Company name changed	Apr. 1 2008
Δ	Company name changed	Apr. 1 2012
Δ	Company name changed	Apr. 1 2013
Δ	Company name changed	Apr. 1 2015
Δ	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

DESIGN	M. MEKADA
CHECKED	YOSHIDA
APPROVAL	T. KATO
ESTABLISHMENT	Jun. 15. 1999
TYPE NAME	
ECQE2*** () B3	
NAME Metallized Polyester Film Capacitor	
DRAWING NAME	
PRODUCT DRAWING	
DRAWING No.	
CT-H-A43E (1/2)	

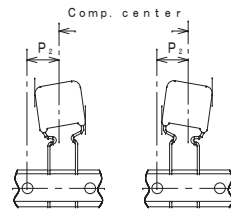
Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.

- Note 1. No more than 3 consecutive missing is permitted.
 Note 2. A tape conjection and a tape discrepancy specify as follows.

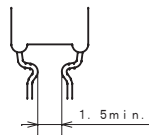


A tape sliding shall not exceed in an allowance of "P₀" dimension.
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- Note 3. Marking on components may not be the same side.
 Note 4. The tape adhesion is more than 3.92N (400gf) / 25mm.
 Note 5. A tape trailer having at least 3 feed holes is required at the end of the tape.
 Note 6. 1) The P₁ and P₂ dimension shall be measured as shown in the figure after the adhes tape placing upward.
 (measuring from the center of sprocket hold to the right.)
 2) The P₂ dimension shall be measured between center of a vertical shadow plane for tape plan and center of sprocket hole.

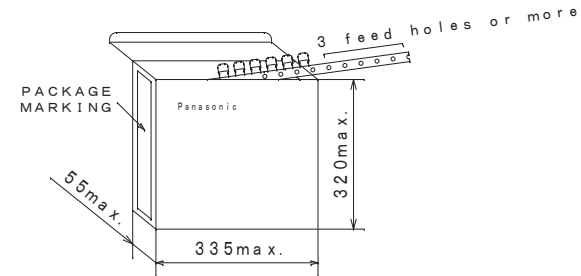


- Note 7. The lead crimping shape shows as follows.



Packing specification

- △ 1. Case size
 Ammo pack



- △ 2. Packing quantity

Capacitance range	Packing quantity	Capacitance range	Packing quantity
0.01~0.033μF	2000	0.1, 0.15μF	1000
0.039~0.082μF	1500	0.27~0.68μF	
0.12, 0.18μF			
0.22μF			

3. Handling notes

- 1) One package must be packed one product only.
- 2) The storage must be stacked 5 boxes or less (surface printed placing upward).
 (For prevention from displacement of capacitors and damage of lead crimping.)
- 3) The packing box must be handled with care and never thrown out.

REFERENCE

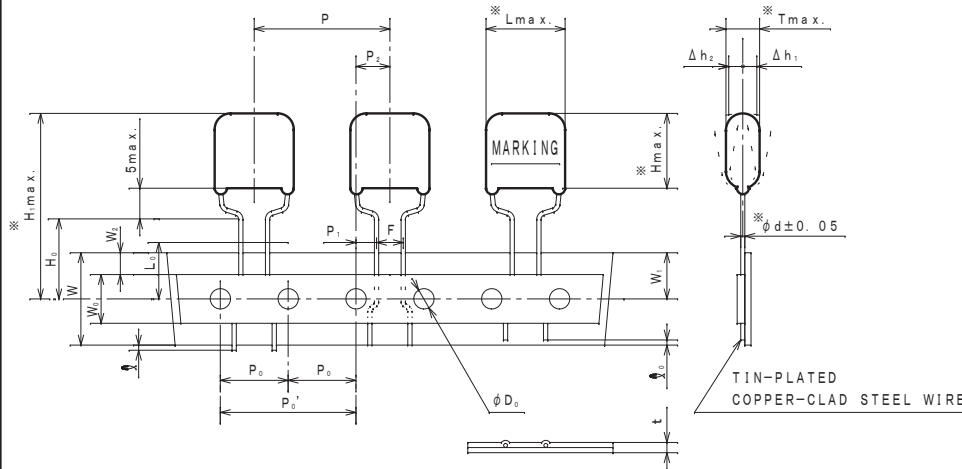
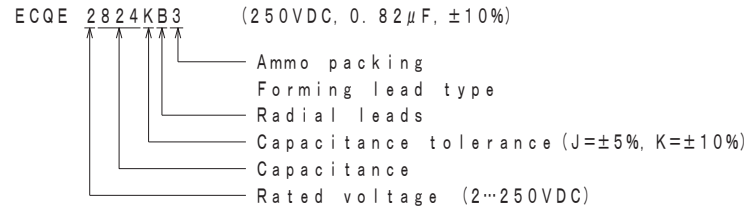
TYPE NAME	ECQE2*** () B3
DRAWING No.	CT-H-A43E (2/2)

Film Capacitor Business Unit
 Device Solutions Business Division
 Panasonic Industry Co., Ltd.

ITEM CODE	RATED VOLTAGE	CAP. (μF)	DIMENSIONS				
			* L	* T	* H	* d	* H ₁
ECQE2824 () B3	250VDC	0.82	15.3	6.3	13.3	0.6	34.8
" 2105 () B3	"	1.0	"	7.0	14.0	"	35.5
" 2125 () B3	"	1.2	"	7.6	14.6	"	36.1
" 2155 () B3	"	1.5	"	8.6	15.7	"	37.2

TOL. SYMBOL (J or K)

ITEM CODE NUMBER STRUCTURE



SYMBOL	ITEM	DIMENSION	REMARKS
P	Pitch of component	25.4 ± 1.0	Tilt of component and curvature of leads shall be included.
P ₀	Feed hole pitch	12.7 ± 0.2	
P ₀ '	"	25.4 ± 0.2	
P ₁	Feed hole center to lead	3.85 ± 0.5	
P ₂	Hole center to comp. center	6.35 ± 1.3	Tilt of component due to curvature of leads shall be included.
F	Lead-to-lead distance	5.0 ± 0.2	
$\Delta h_{1,2}$	Component alignment	0~2.0	Tilt of component due to curvature of leads shall be included.
W	Paper backing width	18.0 ± 0.5	
W ₀	Adhesive tape width	12.5min.	The hold down tape shall not protrude beyond the carrier tape.
W ₁	Hole position	9.0 ± 0.5	
W ₂	Hold-down tape position	0~3.0	
H ₀	Lead-wire clinch height	16.0 ± 0.5	
\uparrow	Lead-wire protrusion	0max.	
\downarrow	Lead-wire depression	7.0max.	
ϕD_0	Feed hole diameter	4.0 ± 0.2	
t	Total tape thickness	0.7 ± 0.2	Total thickness including the hold down tape.
L ₀	Length of snapped lead	11.0max.	

ALTERATION		
ISSUE	DESCRIPTION	DATE
△1	Company name changed	Oct. 1 2004
△2	Company name changed	Apr. 1 2005
△4	Company name changed	Apr. 1 2006
△5	Correction: category temperature range (-40°C~+85°C--40°C~+105°C) Addition: rated voltage (Derating of rated voltage by 1.25%/°C at more than 85°C) Company name changed	Apr. 1 2008
△6	Company name changed	Apr. 1 2012
△7	Company name changed	Apr. 1 2013
△8	Company name changed	Apr. 1 2015
△9	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

CONSTRUCTION

The capacitor is of non-inductive construction, wound with metallized polyester film dielectric.

The capacitor is enclosed in non-combustible epoxy resin and has two leads.

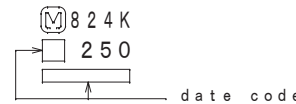
MARKING

Marking comprises capacitance, capacitance tolerance, rated voltage, manufacturer's trademark and date code.

PROPERTIES

- Capacitance: See table at 1kHz.
- Capacitance tolerance: $\pm 5\%$ (J), $\pm 10\%$ (K) at 1kHz.
- Rated voltage: 250VDC △ (Derating of rated voltage by 1.25%/°C at more than 85°C)
- Withstand voltage (terminal-terminal): 250VDC $\times 150\%$ for 60s
- Insulation resistance: $\geq 3000\Omega \cdot \mu F$ at 100VDC, 20°C for 60s
- Dissipation factor: $\leq 1.0\%$ at 1kHz, 20°C
- Operating temperature range: △ From -40°C to +105°C (including temperature rise on unit surface)

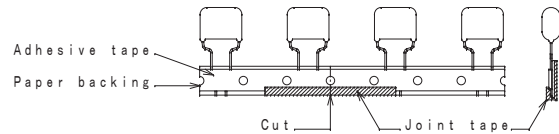
MARKING EXAMPLE



DESIGN	M. MEKADA
CHECKER	Y. SAKAI
APPROVAL	T. KATO
ESTABLISHMENT	Jun. 15. 1999
TYPE NAME	
ECQE2*** () B3	
NAME Metallized Polyester Film Capacitor	
DRAWING NAME	
PRODUCT DRAWING	
DRAWING No.	
CT-H-A44E (1/2)	

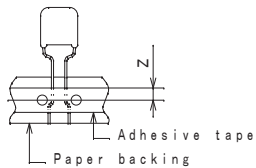
Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.

- Note 1. No more than 2 consecutive missing is permitted.
- Note 2. A tape conjection and a tape discrepancy specify as follows.



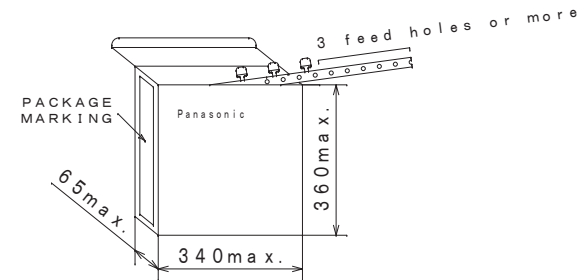
A tape sliding shall not exceed in an allowance of "P₀" dimension.
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- Note 3. Marking on components may not be the same side.
- Note 4. The tape adhesion is more than 3.92N (400gf) / 25mm.
- Note 5. A tape trailer having at least 3 feed holes is required at the end of the tape.
- Note 6. Forming place shall be inside of the Z dimension.



Packing specification

1. Case size
Ammo pack



△ 2. Packing quantity

Capacitance range	Packing quantity
0.82 μF	600
1.0, 1.2 μF	500
1.5 μF	400

3. Handling notes

- 1) One package must be packed one product only.
- 2) The storage must be stacked 5 boxes or less (surface printed placing upward).
 (For prevention from displacement of capacitors and damage of lead clipping.)
- 3) The packing box must be handled with care and never thrown out.

REFERENCE

TYPE NAME	ECQE2*** () B3
DRAWING No.	CT-H-A44E (2/2)

Film Capacitor Business Unit
 Device Solutions Business Division
 Panasonic Industry Co., Ltd.