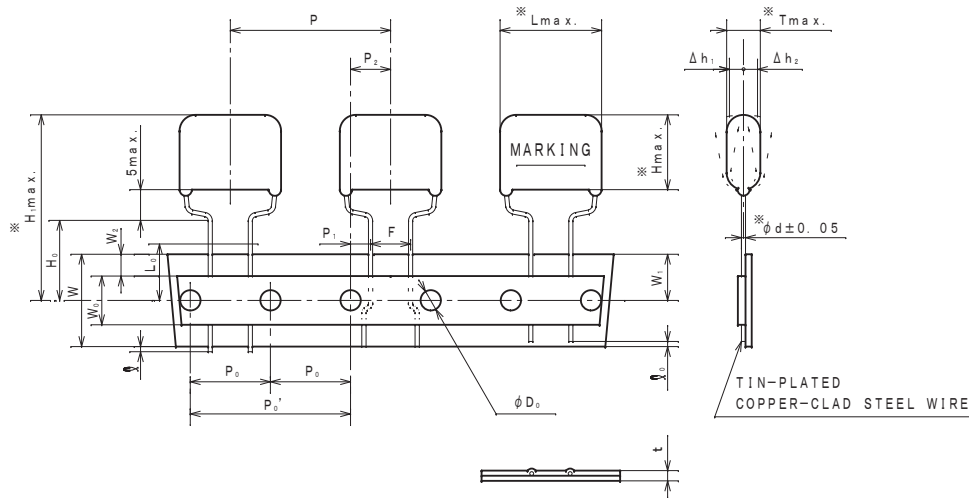


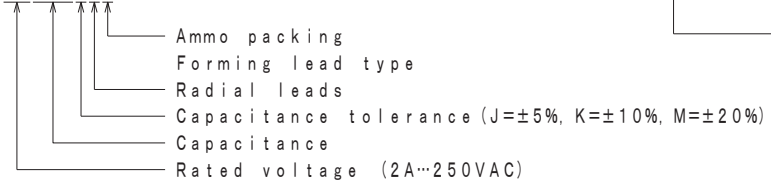
ITEM CODE	RATED VOLTAGE	CAP. (μF)	DIMENSIONS				
			※L	※T	※H	※d	※H ₁
ECQE2A563 () T3	250VAC	0.056	19.0	5.4	10.5	0.6	32.5
" 2A683 () T3	"	0.068	"	5.8	11.0	"	33.0
" 2A823 () T3	"	0.082	"	6.3	12.0	"	34.0
" 2A104 () T3	"	0.1	"	"	14.0	"	36.0
" 2A124 () T3	"	0.12	"	6.8	14.5	0.8	36.5
" 2A154 () T3	"	0.15	"	7.5	15.4	"	37.4
" 2A184 () T3	"	0.18	"	8.0	16.0	"	38.0
" 2A224 () T3	"	0.22	"	9.0	16.9	"	38.9

↑ TOL. SYMBOL (J or K or M)



ITEM CODE NUMBER STRUCTURE

ECQE 2A563KT3 (250VAC, 0.056μF, ±10%)



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	25.4±0.2	
P ₁	"	12.7±0.2	
P ₂	Feed hole center to lead	3.85±0.5	
P _z	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	
Δh _{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	
↑	Lead-wire protrusion	0max.	
↓	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.	

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.

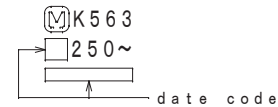
MARKING

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

PROPERTIES

Capacitance	: See table	at 1kHz
Capacitance tolerance	: ±5% (J), ±10% (K), ±20% (M)	at 1kHz
Rated voltage	: 250VAC	
Withstand voltage (terminal-terminal)	: 250VAC×230% for 60s	
(terminal-enclosure)	: 1500VAC for 60s	
Insulation resistance	: ≥2000MΩ at 500VDC, 20°C for 60s	
Dissipation factor	: ≤1.0% at 1kHz, 20°C	
Category temperature range	: △ From -40°C to +105°C	
	(Including temperature rise on unit surface)	

MARKING EXAMPLE



ALTERATION

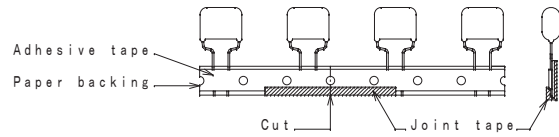
ISSUE	DESCRIPTION	DATE
△1	Change: category temperature range (-40°C~+85°C--40°C~+105°C)	Dec. 21 2010
△2	Company name changed	Apr. 1 2012
△3	Company name changed	Apr. 1 2013
△4	Company name changed	Apr. 1 2015
△5	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

DESIGN	M. MEKADA
CHECKED	T. KATO
APPROVAL	T. KATO
ESTABLISHMENT	Oct. 4, 2010
TYPE NAME	
ECQE2A*** () T3	
NAME Metallized Polyester Film Capacitor	
DRAWING NAME	
PRODUCT DRAWING	
DRAWING No.	
0041M-J-E (1/2)	

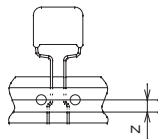
Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.

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



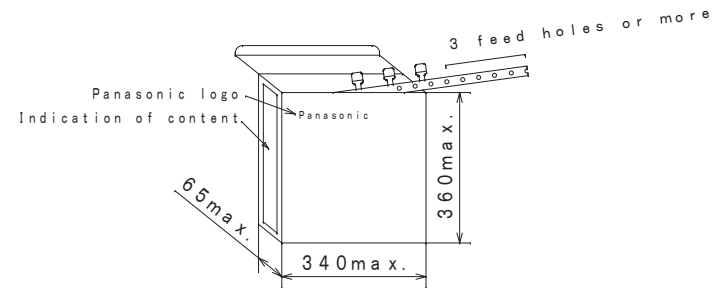
A tape sliding shall not exceed in an allowance of "P₀" dimension.
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- Note 3. A tape trailer having at least 3 feed holes is required at the end of the tape.
- Note 4. Marking on components may not be the same side.
- Note 5. The tape adhesion is more than 3.92N (400gf) / 25mm.
- 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
0.056 μF	800
0.068 μF	700
0.082~0.12 μF	600
0.15 ~0.18 μF	500
0.22 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 crimping.)
- 3) The packing box must be handled with care and never thrown out.

REFERENCE

TYPE NAME	ECQE2A*** () T3
DRAWING No.	0041M-J-E (2/2)

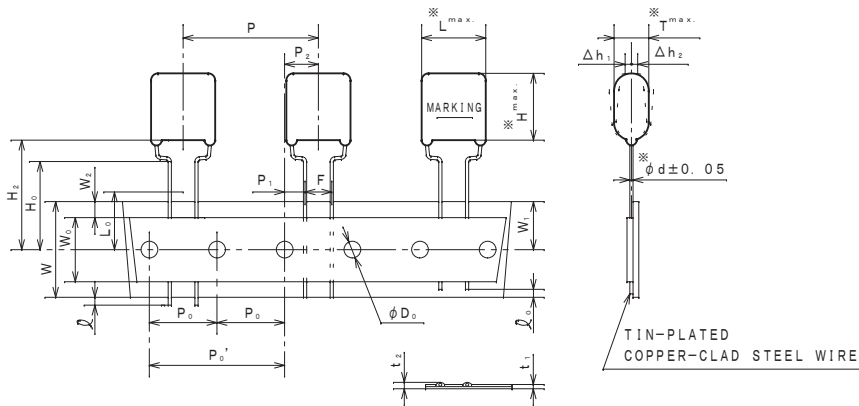
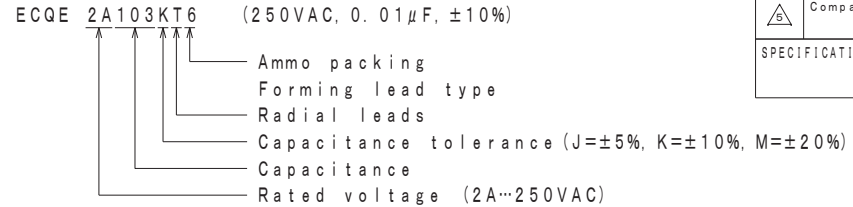
Film Capacitor Business Unit
 Device Solutions Business Division
 Panasonic Industry Co., Ltd.

ITEM CODE	RATED VOLTAGE	CAP. (μ F)	DIMENSIONS			
			*L	*T	*H	*d
ECQE2A103 () T6	250VAC	0.01	13.0	5.5	10.8	0.6
" 2A123 () T6	"	0.012	"	6.0	11.5	"
" 2A153 () T6	"	0.015	"	6.3	9.9	"
" 2A183 () T6	"	0.018	"	6.0	11.9	"
" 2A223 () T6	"	0.022	"	"	11.5	"
" 2A273 () T6	"	0.027	"	5.5	10.9	"
" 2A333 () T6	"	0.033	"	6.0	11.9	"
" 2A393 () T6	"	0.039	"	"	13.4	"
" 2A473 () T6	"	0.047	"	6.5	14.4	"

ALTERATION		
ISSUE	DESCRIPTION	DATE
△1	Change: category temperature range (-40°C~+85°C--40°C~+105°C)	Dec. 21 2010
△2	Company name changed	Apr. 1 2012
△3	Company name changed	Apr. 1 2013
△4	Company name changed	Apr. 1 2015
△5	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

ITEM CODE NUMBER STRUCTURE



SYMBOL	ITEM	DIMENSION	REMARKS
P	Pitch of component	25.4 \pm 1.0	Tilt of component and curvature of leads shall be included.
P ₀	Feed hole pitch	12.7 \pm 0.2	
P ₀ '	"	25.4 \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	
Δ 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	12.5min.	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 1.0	
d	Lead-wire protrusion	0max.	
d ₀	Lead-wire depression	7.0max.	
ϕ D 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.	

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.

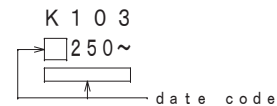
MARKING

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

PROPERTIES

Capacitance : See table at 1kHz
 Capacitance tolerance : \pm 5% (J), \pm 10% (K), \pm 20% (M) at 1kHz
 Rated voltage : 250VAC
 Withstand voltage (terminal-terminal) : 250VAC \times 230% for 60s
 (terminal-enclosure) : 1500VAC for 60s
 Insulation resistance : \geq 2000M Ω at 500VDC, 20°C for 60s
 Dissipation factor : \leq 1.0% at 1kHz, 20°C
 Category temperature range : Δ From -40°C to +105°C (including temperature rise on unit surface)

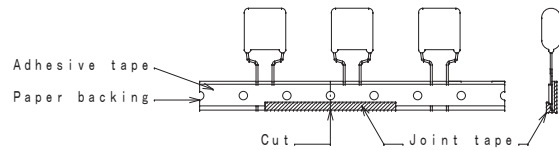
MARKING EXAMPLE



DESIGN	M. MEKADA
CHECKED	T. KATO
APPROVAL	T. KATO
ESTABLISHMENT	Oct. 4, 2010
TYPE NAME	
ECQE2A*** () T6	
NAME Metallized Polyester Film Capacitor	
DRAWING NAME	
PRODUCT DRAWING	
DRAWING No.	
0042M-J-E (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 conjunction and a tape discrepancy specify as follows.

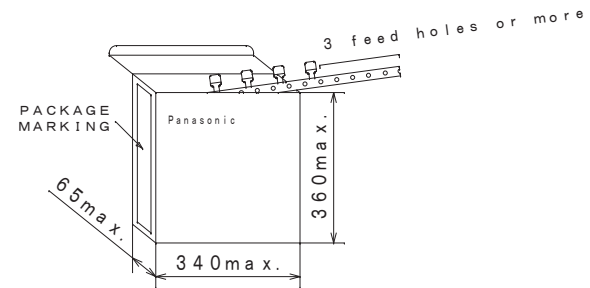


A tape sliding shall not exceed in an allowance of "P₀" dimension.
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

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

Packing specification

1. Case size
Ammo pack



2. Packing quantity

Capacitance range	Packing quantity
0.01, 0.027 μ F	800
0.012 μ F	700
0.018, 0.022 μ F	
0.033, 0.039 μ F	
0.015, 0.047 μ F	600

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.

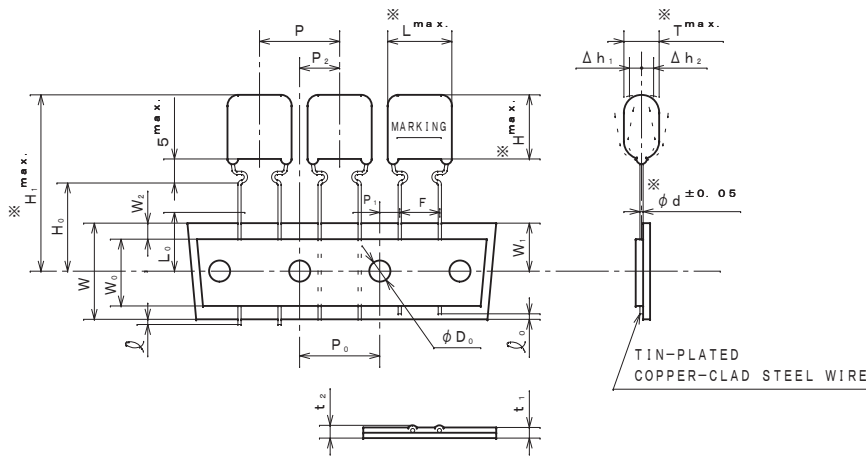
REFERENCE

TYPE NAME	ECQE2A*** () T6
DRAWING No.	0042M-J-E (2/2)

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

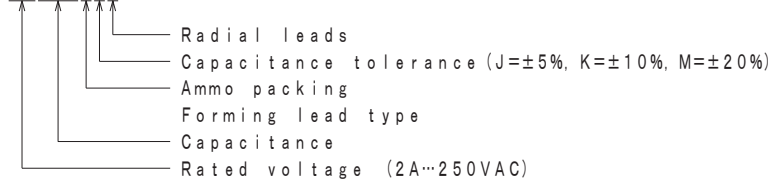
ITEM CODE	RATED VOLTAGE	CAP. (μ F)	DIMENSIONS				
			\ast L	\ast T	\ast H	\ast d	\ast H ₁
ECQE2A103R () T	250VAC	0.01	13.0	5.5	10.8	0.6	32.8
" 2A123R () T	"	0.012	"	6.0	11.5	"	33.5
" 2A153R () T	"	0.015	"	6.3	9.9	"	31.9
" 2A183R () T	"	0.018	"	6.0	11.9	"	33.9
" 2A223R () T	"	0.022	"	"	11.5	"	33.5
" 2A273R () T	"	0.027	"	5.5	10.9	"	32.9
" 2A333R () T	"	0.033	"	6.0	11.9	"	33.9
" 2A393R () T	"	0.039	"	"	13.4	"	35.4
" 2A473R () T	"	0.047	"	6.5	14.4	"	36.4

TOL. SYMBOL (J or K or M)



ITEM CODE NUMBER STRUCTURE

ECQE 2A103RKT (250VAC, 0.01 μ F, \pm 10%)



SYMBOL	ITEM	DIMENSION	REMARKS
P	Pitch of component	15.0 \pm 1.0	Tilt of component and curvature of leads shall be included.
P ₀	Feed hole pitch	15.0 \pm 0.2	
P ₁	Feed hole center to lead	3.75 \pm 0.5	
P ₂	Hole center to comp. center	7.5 \pm 1.3	Tilt of component due to curvature of leads shall be included.
F	Lead-to-lead distance	7.5 \pm 0.2	
Δ 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 ₀	Lead-wire clinch height	16.0 \pm 0.9	
\uparrow	Lead-wire protrusion	0max.	
\downarrow	Lead-wire depression	7.0max.	
ϕ D 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.	

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.

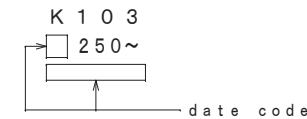
MARKING

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

PROPERTIES

Capacitance	: See table	at 1kHz
Capacitance tolerance	: \pm 5% (J), \pm 10% (K), \pm 20% (M)	at 1kHz
Rated voltage	: 250VAC	
Withstand voltage (terminal-terminal)	: 250VAC \times 230% for 60s	
(terminal-enclosure)	: 1500VAC for 60s	
Insulation resistance	: \geq 2000M Ω at 500VDC, 20 $^{\circ}$ C for 60s	
Dissipation factor	: \leq 1.0% at 1kHz, 20 $^{\circ}$ C	
Category temperature range	: \triangle From -40 $^{\circ}$ C to +105 $^{\circ}$ C	(Including temperature rise on unit surface)

MARKING EXAMPLE



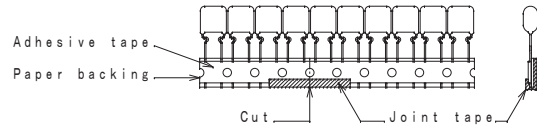
ALTERATION		
ISSUE	DESCRIPTION	DATE
\triangle	Change: category temperature range (-40 $^{\circ}$ C~+85 $^{\circ}$ C--40 $^{\circ}$ C~+105 $^{\circ}$ C)	Dec. 21 2010
\triangle	Company name changed	Apr. 1 2012
\triangle	Company name changed	Apr. 1 2013
\triangle	Company name changed	Apr. 1 2015
\triangle	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

DESIGN	M. MEKADA
CHECKED	T. KATO
APPROVAL	T. KATO
ESTABLISHMENT	Sep. 24, 2008
TYPE NAME	
ECQE2A***R () T	
NAME Metallized Polyester Film Capacitor	
DRAWING NAME	
PRODUCT DRAWING	
DRAWING No.	
8070M-J-E (1/2)	

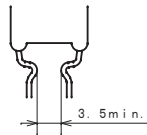
Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.

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



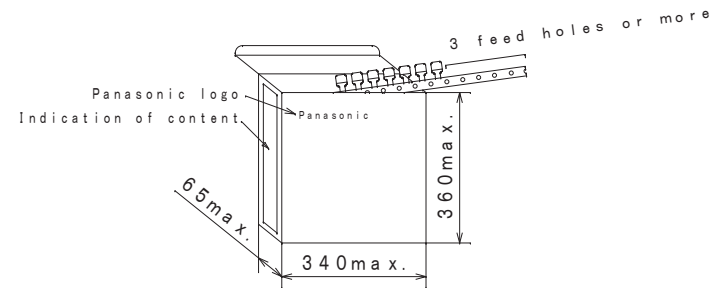
A tape sliding shall not exceed in an allowance of "P₀" dimension.
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- 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. 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, 0.027 μ F	1300	0.015, 0.047 μ F	1100
0.012 μ F	1200		
0.018~0.022 μ F			
0.033~0.039 μ F			

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.

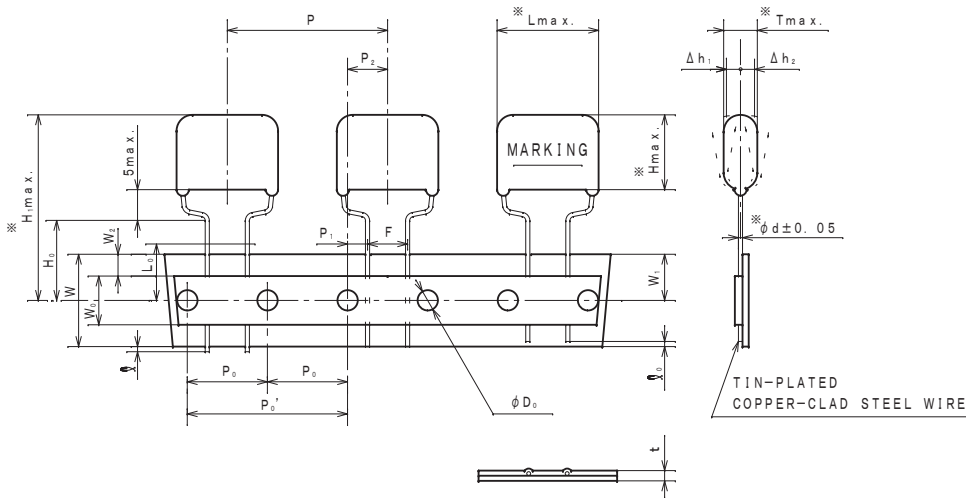
REFERENCE

TYPE NAME	ECQE2A***R () T
DRAWING No.	8070M-J-E (2/2)

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

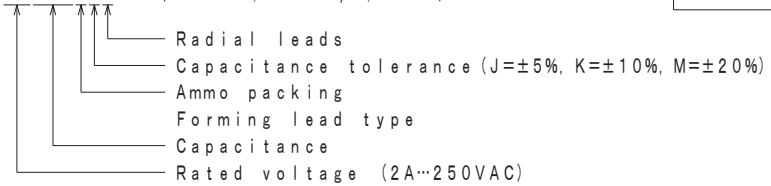
ITEM CODE	RATED VOLTAGE	CAP. (μ F)	DIMENSIONS				
			*L	*T	*H	*d	*H ₁
ECQE2A563R () T	250VAC	0.056	19.0	5.4	10.5	0.6	32.5
" 2A683R () T	"	0.068	"	5.8	11.0	"	33.0
" 2A823R () T	"	0.082	"	6.3	12.0	"	34.0
" 2A104R () T	"	0.1	"	"	14.0	"	36.0
" 2A124R () T	"	0.12	"	6.8	14.5	0.8	36.5
" 2A154R () T	"	0.15	"	7.5	15.4	"	37.4
" 2A184R () T	"	0.18	"	8.0	16.0	"	38.0
" 2A224R () T	"	0.22	"	9.0	16.9	"	38.9

TOL. SYMBOL (J or K or M)



ITEM CODE NUMBER STRUCTURE

ECQE 2A563RKT (250VAC, 0.056 μ F, \pm 10%)



SYMBOL	ITEM	DIMENSION	REMARKS
P	Pitch of component	30.0 \pm 1.0	Tilt of component and curvature of leads shall be included.
P ₀ '	Feed hole pitch	30.0 \pm 0.2	
P ₀	"	15.0 \pm 0.2	
P ₁	Feed hole center to lead	3.75 \pm 0.5	
P ₂	Hole center to comp. center	7.5 \pm 1.3	Tilt of component due to curvature of leads shall be included.
F	Lead-to-lead distance	7.5 \pm 0.8	
Δ 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	12.5min.	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 ₀	Lead-wire clinch height	16.0 \pm 0.9	
ϕ	Lead-wire protrusion	0max.	
ϕ ₁	Lead-wire depression	7.0max.	
ϕ D ₀	Feed hole diameter	4.0 \pm 0.2	
t	Total tape thickness	0.7 \pm 0.2	Total thickness including the hold down tape.
L ₀	Length of snapped lead	11.0max.	

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.

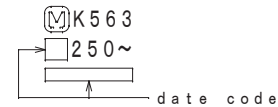
MARKING

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), \pm 20% (M)	at 1kHz
Rated voltage	: 250VAC	
Withstand voltage (terminal-terminal)	: 250VAC \times 230% for 60s	
(terminal-enclosure)	: 1500VAC for 60s	
Insulation resistance	: \geq 2000M Ω at 500VDC, 20°C for 60s	
Dissipation factor	: \leq 1.0% at 1kHz, 20°C	
Category temperature range	: Δ From -40°C to +105°C	(Including temperature rise on unit surface)

MARKING EXAMPLE



ALTERATION

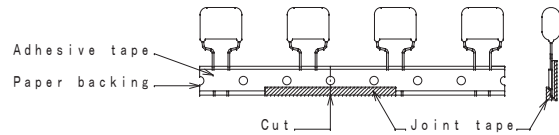
ISSUE	DESCRIPTION	DATE
Δ 1	Change: category temperature range (-40°C~+85°C--40°C~+105°C)	Dec. 21 2010
Δ 2	Company name changed	Apr. 1 2012
Δ 3	Company name changed	Apr. 1 2013
Δ 4	Company name changed	Apr. 1 2015
Δ 5	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

DESIGN	M. MEKADA
CHECKED	T. KATO
APPROVAL	T. KATO
ESTABLISHMENT	Sep. 24, 2008
TYPE NAME	ECQE2A***R () T
NAME	Metallized Polyester Film Capacitor
DRAWING NAME	PRODUCT DRAWING
DRAWING No.	8071M-J-E (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 conjunction and a tape discrepancy specify as follows.

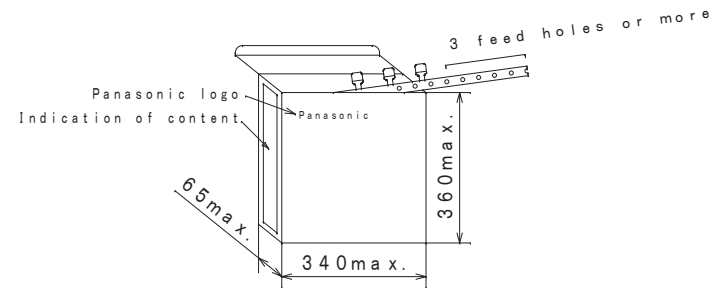


A tape sliding shall not exceed in an allowance of "P₀" dimension.
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- 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.

Packing specification

1. Case size
Ammo pack



2. Packing quantity

Capacitance range	Packing quantity
0.056~0.068 μ F	600
0.082~0.12 μ F	500
0.15 ~0.22 μ F	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 crimping.)
- 3) The packing box must be handled with care and never thrown out.

REFERENCE

TYPE NAME	ECQE2A***R () T
DRAWING No.	8071M-J-E (2/2)

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