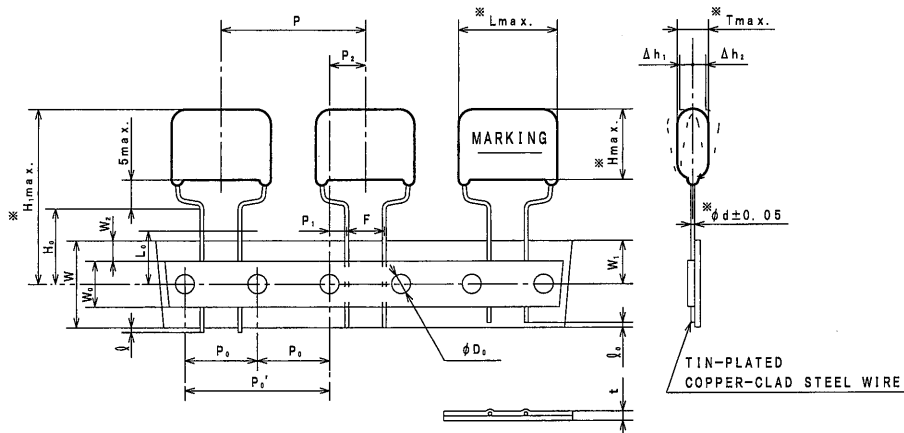


THIRD ANGLE PROJECTION

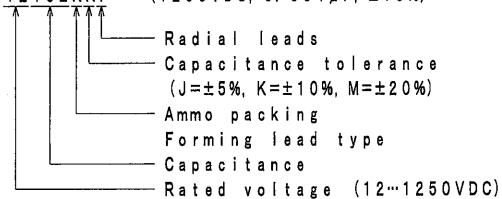
ITEM CODE	CAP. ( $\mu$ F)	DIMENSIONS				
		$\times$ L	$\times$ T	$\times$ H	$\times$ d	$\times$ H <sub>1</sub>
ECQE12102R ( ) F	0.001	15.5	6.0	11.0	0.6	33.0
" 12122R ( ) F	0.0012	"	"	"	"	"
" 12152R ( ) F	0.0015	"	"	"	"	"
" 12182R ( ) F	0.0018	"	"	"	"	"
" 12222R ( ) F	0.0022	"	"	11.5	"	33.5
" 12272R ( ) F	0.0027	"	6.5	12.0	"	34.0
" 12332R ( ) F	0.0033	"	6.0	11.5	"	33.5
" 12392R ( ) F	0.0039	"	6.5	12.0	"	34.0
" 12472R ( ) F	0.0047	"	7.0	12.5	"	34.5
" 12562R ( ) F	0.0056	"	7.5	13.0	"	35.0
" 12682R ( ) F	0.0068	"	"	15.0	"	37.0
" 12822R ( ) F	0.0082	21.0	5.0	12.0	"	34.0
" 12103R ( ) F	0.01	"	"	12.5	"	34.5
" 12123R ( ) F	0.012	"	5.5	13.0	"	35.0
" 12153R ( ) F	0.015	"	6.0	13.5	"	35.5
" 12183R ( ) F	0.018	"	6.5	14.5	0.8	36.5
" 12223R ( ) F	0.022	"	7.0	15.0	"	37.0

TOL. SYMBOL (J or K or M)



ITEM CODE NUMBER STRUCTURE

ECQE 12102RKF (1250VDC, 0.001 $\mu$ F,  $\pm$ 10%)



ALTERATION		
ISSUE	DESCRIPTION	DATE
$\Delta$	Company name changed	Apr. 1 2008
$\Delta$	Correction: category temperature range (-40 $^{\circ}$ C $\sim$ +85 $^{\circ}$ C $\rightarrow$ -40 $^{\circ}$ C $\sim$ +105 $^{\circ}$ C) Addition: rated voltage (Delating of rated voltage by 1.25%/ $^{\circ}$ C at more than 85 $^{\circ}$ C)	Jan. 22 2008
$\Delta$	Company name changed Error correction	Apr. 1 2008
$\Delta$	Company name changed	Apr. 1 2012
$\Delta$	Company name changed	Apr. 1 2013
$\Delta$	Company name changed	Apr. 1 2015

SPECIFICATIONS No.

SYMBOL	ITEM	DIMENSION	REMARKS
P	Pitch of component	30.0 $\pm$ 1.0	Tilt of component and curvature of leads shall be included.
P'	Feed hole pitch	30.0 $\pm$ 0.2	
P <sub>1</sub>	"	15.0 $\pm$ 0.2	
P <sub>2</sub>	Feed hole center to lead	3.75 $\pm$ 0.5	
P <sub>3</sub>	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	
$\Delta$ h <sub>1,2</sub>	Component alignment	0 $\sim$ 2.0	Tilt of component due to curvature of leads shall be included.
W	Paper backing width	18.0 $\pm$ 0.5	
W <sub>0</sub>	Adhesive tape width	12.5min.	The hold down tape shall not protrude beyond the carrier tape.
W <sub>1</sub>	Hole position	0.0 $\pm$ 0.5	
W <sub>2</sub>	Hold-down tape position	0 $\sim$ 3.0	
H <sub>0</sub>	Lead-wire clinch height	16.0 $^{\circ}$ <sub>10</sub>	
l	Lead-wire protrusion	0max.	
l <sub>0</sub>	Lead-wire depression	7.0max.	
$\phi$ D <sub>0</sub>	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 <sub>0</sub>	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, type name, 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 : 1250VDC/125VAC  $\Delta$  (Derating of rated voltage by 1.25%/ $^{\circ}$ C at more than 85 $^{\circ}$ C)  
 Withstand voltage (terminal-terminal) : 1250VDC $\times$ 175% for 2s $\sim$ 5s (1000VAC for 60s)  
 (terminal-enclosure) : 1500VAC for 60s  
 Insulation resistance :  $\geq$ 10000M $\Omega$  at 100VDC, 20 $^{\circ}$ C for 60s  
 $\geq$  2000M $\Omega$  at 500VDC, 20 $^{\circ}$ C for 60s  
 Dissipation factor :  $\leq$ 1.0% at 1kHz, 20 $^{\circ}$ C  
 Category temperature range :  $\Delta$  From -40 $^{\circ}$ C to +105 $^{\circ}$ C  
 (including temperature rise on unit surface)

MARKING EXAMPLE

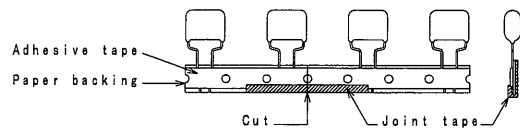
$\text{M}$  102 M  
 Q-E 1250V  
 125V $\sim$     $\leftarrow$  date code

Reference

DESIGN	<i>T. Asakura</i>
CHECKED	<i>K. Osaki</i>
APPROVAL	<i>F. Takata</i>
ESTABLISHMENT	Sep. 5. 2005
TYPE NAME	ECQE12***R ( ) F
NAME	Metallized Polyester Film Capacitor
DRAWING NAME	PRODUCT DRAWING
DRAWING No.	5055M-J-E (1/2)

Toyama-Matsue Plant  
 Device Solutions Business Division  
 Panasonic Corporation

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

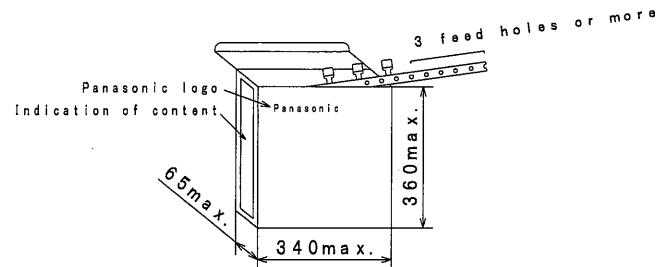


A tape sliding shall not exceed in an allowance of "P<sub>0</sub>" dimension.  
 A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- 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
0.001~0.0047 $\mu$ F	500
0.0082~0.022 $\mu$ F	400
0.0056, 0.0068 $\mu$ 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	ECQE12***R () F
DRAWING No.	5055M-J-E (2/2)

Toyama·Matsue Plant  
 Device Solutions Business Division  
 Panasonic Corporation