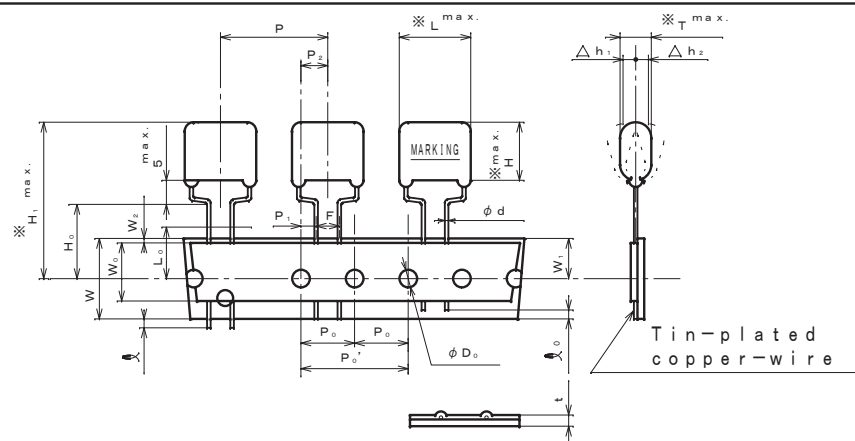
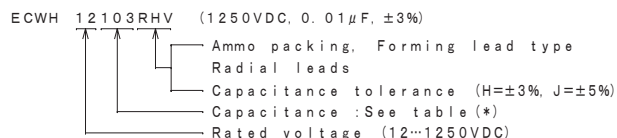


ITEM CODE	CAPACITANCE μF (*)	DIMENSIONS			
		※L	※T	※H	※H ₁
ECWH 12362R () V	0.0036 (362)	18.0	6.0	12.5	34.5
" 12392R () V	0.0039 (392)	"	"	"	"
" 12432R () V	0.0043 (432)	"	"	13.0	35.0
" 12472R () V	0.0047 (472)	"	"	"	"
" 12512R () V	0.0051 (512)	"	6.5	"	"
" 12562R () V	0.0056 (562)	"	"	13.5	35.5
" 12622R () V	0.0062 (622)	"	"	"	"
" 12682R () V	0.0068 (682)	"	7.0	"	"
" 12752R () V	0.0075 (752)	"	"	14.0	36.0
" 12822R () V	0.0082 (822)	"	7.5	"	"
" 12912R () V	0.0091 (912)	"	"	14.5	36.5
" 12103R () V	0.01 (103)	"	8.0	15.0	37.0
" 12113R () V	0.011 (113)	"	8.5	"	"
" 12123R () V	0.012 (123)	"	"	15.5	37.5
" 12133R () V	0.013 (133)	"	9.0	"	"
" 12153R () V	0.015 (153)	"	9.5	16.0	38.0
" 12163R () V	0.016 (163)	23.0	7.5	"	"
" 12183R () V	0.018 (183)	"	"	"	"
" 12203R () V	0.02 (203)	"	8.0	16.5	38.5
" 12223R () V	0.022 (223)	"	8.5	"	"
" 12243R () V	0.024 (243)	"	"	17.0	39.0
" 12273R () V	0.027 (273)	"	9.0	17.5	39.5
" 12303R () V	0.03 (303)	"	9.5	18.0	40.0
" 12333R () V	0.033 (333)	"	10.0	18.5	40.5
" 12363R () V	0.036 (363)	"	"	19.0	41.0
" 12393R () V	0.039 (393)	"	10.5	19.5	41.5
" 12433R () V	0.043 (433)	"	11.0	20.0	42.0
" 12473R () V	0.047 (473)	"	11.5	20.5	42.5
" 12513R () V	0.051 (513)	"	12.0	21.0	43.0



SYMBOL	ITEM	VALUE	TOLERANCE	REMARKS
P	Pitch of component	30.0	±1.0	Tilt of component and curvature of leads shall be included.
P ₀	Feed hole pitch	30.0	±0.2	
P ₀ '	Feed hole pitch	15.0	±0.2	
P ₁	Feed hole center to lead	3.75	±0.5	
P ₂	Hole center to comp. center	7.5	±1.3	Tilt of component due to curvature of leads shall be included.
φd	Lead-wire diameter	0.8	±0.05	
F	Lead-to-lead distance	7.5	±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	12.5	min.	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	+1.0 0	
ℓ	Lead wire protrusion	0	max.	
ℓ ₀	Lead wire depression	7.0	max.	
φD ₀	Feed hole diameter	4.0	±0.2	
t	Total tape thickness	0.7	±0.2	
L ₀	Length of snapped lead	11.0	max.	

ITEM CODE NUMBER STRUCTURE



CONSTRUCTION

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

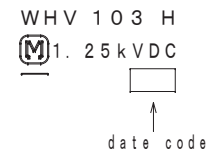
MARKING

Marking comprises capacitance, capacitance tolerance, rated voltage, manufacturer's trademark and type name "WHV" and manufacturer's date code.

PROPERTIES

- Capacitance : See table at 1kHz
- Capacitance tolerance : ±3% (H), ±5% (J)
- Rated voltage : 1250VDC (Derating of rated voltage by 1.25%/°C at more than 85°C)
- Withstand voltage (terminal-terminal) : DC Rated voltage × 150% for 60s
- (terminal-enclosure) : 1500VAC for 60s
- Insulation resistance : 30,000MΩ or more, at 500VDC, 20°C for 60s
- Dissipation factor : 0.1% or less at 1kHz, 0.2% or less at 10kHz
- Category temperature range : From -40°C to +105°C (including temperature rise on unit surface)

(example)



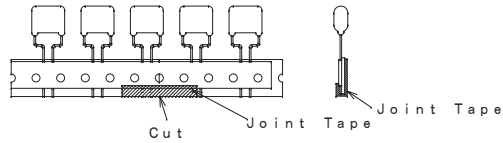
ALTERATION		
ISSUE	DESCRIPTION	DATE
△	Company name changed	Apr. 1 2012
△	Company name changed	Apr. 1 2013
△	Company name changed	Apr. 1 2015
△	Company name changed	Apr. 1 2022

SPECIFICATIONS No.

DESIGN	M. MEKADA
CHECKED	H. YAMAMOTO
APPROVAL	T. KATO
ESTABLISHMENT	Mar. 18, 2010
TYPE NAME	
ECWH 12***R () V	
NAME METALLIZED POLYPROPYLENE CAPACITOR	
DRAWING NAME PRODUCT DRAWING	
DRAWING No. 0025J-J-E (1/2)	

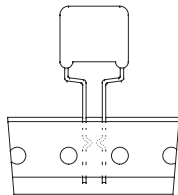
Film Capacitor Business Unit
Device Solutions Business Division
Panasonic Industry Co., Ltd.

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



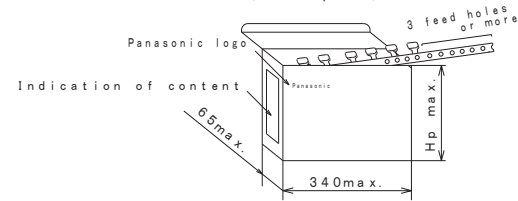
A tape sliding shall not exceed in an allowance of "P₀" dimension. A joint tape put on the back side of paper backing, and turn up the lower part to the front.

- 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. The lead clinch at the tape, shows as follows.



Packing specification

1. Case size (Ammo pack)



2. Packaging quantity

Capacitance range (μF)	Quantity (pcs.)	Hp
0.0036~0.0091	500	360
0.01 ~0.015	400	"
0.016 ~0.018	500	"
0.02 ~0.03	400	"
0.033 ~0.043	300	"
0.047 ~0.051	"	410

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	ECWH 12***R () V
DRAWING No.	0025J-J-E (2/2)

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