

THIRD ANGLE PROJECTION

ITEM CODE	CAPACITANCE		DIMENSIONS					TYPE
	$\mu F$	(*)	L	W	H	$e_1, e_2$	g	
△ ECHU 1C101 ( ) X ( )	0.0001	(101)	1.6±0.2	0.9 ±0.15	0.7±0.15	0.35±0.20	0.4min.	K <sub>1</sub>
# 1C121 ( ) X ( )	0.00012	(121)	#	#	#	#	#	#
# 1C151 ( ) X ( )	0.00015	(151)	#	#	#	#	#	#
# 1C181 ( ) X ( )	0.00018	(181)	#	#	#	#	#	#
# 1C221 ( ) X ( )	0.00022	(221)	#	#	#	#	#	#
# 1C271 ( ) X ( )	0.00027	(271)	#	#	#	#	#	#
# 1C331 ( ) X ( )	0.00033	(331)	#	#	#	#	#	#
# 1C391 ( ) X ( )	0.00039	(391)	#	#	#	#	#	#
# 1C471 ( ) X ( )	0.00047	(471)	#	#	#	#	#	#
# 1C561 ( ) X ( )	0.00056	(561)	#	#	#	#	#	#
# 1C681 ( ) X ( )	0.00068	(681)	#	#	#	#	#	#
# 1C821 ( ) X ( )	0.00082	(821)	#	#	#	#	#	#
# 1C102 ( ) X ( )	0.001	(102)	#	#	#	#	#	#
# 1C122 ( ) X ( )	0.0012	(122)	#	#	#	#	#	#
# 1C152 ( ) X ( )	0.0015	(152)	#	#	#	#	#	#
# 1C182 ( ) X ( )	0.0018	(182)	#	#	#	#	#	#
# 1C222 ( ) X ( )	0.0022	(222)	#	#	#	#	#	#
△ # 1C272 ( ) X ( )	0.0027	(272)	#	#	#	#	#	#
# 1C332 ( ) X ( )	0.0033	(332)	2.0±0.2	1.25±0.2	0.9±0.2	0.45±0.25	0.6min.	J <sub>1</sub>
# 1C392 ( ) X ( )	0.0039	(392)	#	#	#	#	#	#
# 1C472 ( ) X ( )	0.0047	(472)	#	#	#	#	#	#
# 1C562 ( ) X ( )	0.0056	(562)	#	#	#	#	#	#
# 1C682 ( ) X ( )	0.0068	(682)	#	#	#	#	#	#
# 1C822 ( ) X ( )	0.0082	(822)	#	#	1.1±0.2	#	#	J <sub>2</sub>
# 1C103 ( ) X ( )	0.01	(103)	#	#	#	#	#	#
# 1C123 ( ) X ( )	0.012	(123)	3.2±0.2	1.6 ±0.2	0.9±0.2	0.65±0.30	1.0min.	H <sub>1</sub>
# 1C153 ( ) X ( )	0.015	(153)	#	#	#	#	#	#
# 1C183 ( ) X ( )	0.018	(183)	#	#	#	#	#	#
# 1C223 ( ) X ( )	0.022	(223)	#	#	#	#	#	#
# 1C273 ( ) X ( )	0.027	(273)	#	#	1.1±0.2	#	#	H <sub>2</sub>
# 1C333 ( ) X ( )	0.033	(333)	#	#	#	#	#	#
# 1C393 ( ) X ( )	0.039	(393)	#	#	1.5±0.2	#	#	H <sub>3</sub>
# 1C473 ( ) X ( )	0.047	(473)	#	#	#	#	#	#
# 1C563 ( ) X ( )	0.056	(563)	#	2.5 ±0.2	#	#	#	G <sub>2</sub>
# 1C683 ( ) X ( )	0.068	(683)	#	#	#	#	#	#
# 1C823 ( ) X ( )	0.082	(823)	#	#	2.1±0.2	#	#	G <sub>3</sub>
# 1C104 ( ) X ( )	0.1	(104)	#	#	#	#	#	#

5:  $\phi$ 180mm Reel  
7:  $\phi$ 330mm Reel

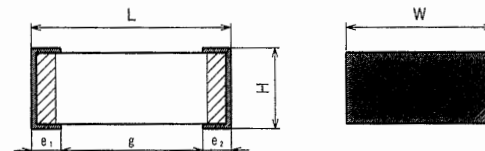
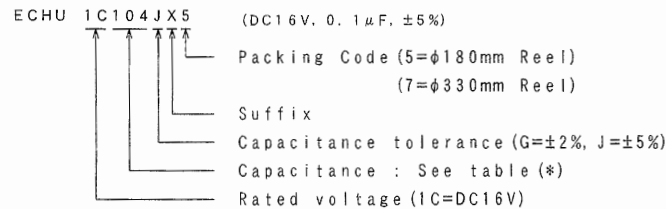
CONSTRUCTION

The capacitor is non-inductive construction, stacked with metallized plastic film dielectric, and has two outer electrodes.

PROPERTIES

- Capacitance : See table at 1kHz
- Capacitance tolerance :  $\pm 2\%$  (G),  $\pm 5\%$  (J)
- Rated voltage : DC16V
- Withstand voltage : Rated voltage  $\times 175\%$  for 1s to 5s
- Insulation resistance :  $\geq 3,000\text{M}\Omega$  at 20°C, DC10V for 60s
- Dissipation factor :  $\leq 0.6\%$  at 1kHz, 20°C
- Category temperature : from -55°C to +125°C (including temperature rise on unit surface)

ITEM CODE NUMBER STRUCTURE



ALTERATION

ISSUE	DESCRIPTION	DATE
△	Addition (ECHU1C101~272) Addition (Packing Code "7" $\phi$ 330mm Reel)	Jun. 19 2002
△	Company name changed	Oct. 1 2004
△	Company name changed	Apr. 1 2005
△	Company name changed Clerical error correction: Taping Dimension (K, Type) (T: 1.1±0.2-1.0±0.2) (K: 1.0±0.1-0.9±0.1)	Apr. 1 2006
△	Company name changed	Apr. 1 2008
△	Company name changed	Apr. 1 2012
△	Company name changed	Apr. 1 2013

SPECIFICATIONS No.

Reference

DESIGN	M. Mekada M. Mekada
CHECKED	Y. Takata Y. Takata
APPROVAL	K. Fukumitsu K. Fukumitsu
ESTABLISHMENT	Feb. 2, 1998
TYPE NAME	ECHU 1C*** ( ) X5 # 1C*** ( ) X7
NAME	FILM CHIP CAPACITOR ECHU (X)
DRAWING NAME	PRODUCT DRAWING
DRAWING No.	CW-H-802H (1/2)

Film Capacitor Division  
Capacitor Business Division  
Panasonic Corporation

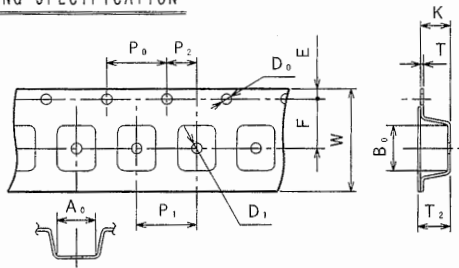
DO NOT SCALE DRAWING

REVISIONS INDICATED BY △

ALL DIMENSIONS ARE IN MILLIMETERS

THIRD ANGLE PROJECTION

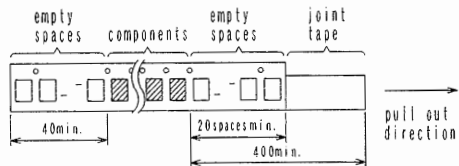
TAPING SPECIFICATION



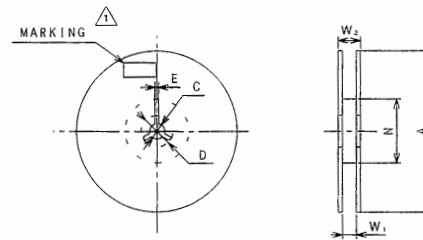
TYPE	A <sub>0</sub>	B <sub>0</sub>	T	T <sub>2</sub>	K
△ K <sub>1</sub>	1.0 ± 0.1	1.85 ± 0.1	0.20 ± 0.05	△ 1.0 ± 0.2	△ 0.9 ± 0.1
J <sub>1</sub>	1.55 ± 0.1	2.3 ± 0.1	0.25 ± 0.05	1.3 ± 0.2	1.2 ± 0.1
J <sub>2</sub>	"	"	"	1.5 ± 0.2	1.4 ± 0.1
H <sub>1</sub> , H <sub>2</sub>	1.9 ± 0.1	△ 3.5 ± 0.1	"	"	"
H <sub>3</sub>	"	"	"	1.9 ± 0.2	1.8 ± 0.1
G <sub>2</sub>	2.8 ± 0.1	"	"	"	"
G <sub>3</sub>	"	△ "	"	2.5 ± 0.2	2.4 ± 0.1

SYMBOL	DIMENSIONS	
	△ K <sub>1</sub>	J <sub>1</sub> , J <sub>2</sub> , H <sub>1</sub> , H <sub>2</sub> , H <sub>3</sub> , G <sub>2</sub> , G <sub>3</sub>
W	8.0 ± 0.3	8.0 ± 0.3
F	3.5 ± 0.05	3.5 ± 0.05
E	1.75 ± 0.1	1.75 ± 0.1
P <sub>1</sub>	—	4.0 ± 0.1
P <sub>2</sub>	2.0 ± 0.05	2.0 ± 0.05
P <sub>0</sub>	4.0 ± 0.1	4.0 ± 0.1
φ D <sub>0</sub>	1.5 <sup>+0.1</sup> / <sub>0</sub>	1.5 <sup>+0.1</sup> / <sub>0</sub>
φ D <sub>1</sub>	—	1.0 <sup>+0.1</sup> / <sub>0</sub>

EMPTY SPACE AND JOINT TAPE



PACKING SPECIFICATION



PACKING CODE	PACKING
5	φ180mm Reel 8mm Tape Width 4mm Pitch Plastic Taping
7	φ330mm Reel 8mm Tape Width 4mm Pitch Plastic Taping

DIMENSIONS

SYMBOL	PACKING CODE "5"	△ PACKING CODE "7"
A	180.0 <sup>+1.5</sup> / <sub>0</sub>	330.0 ± 2.0
C	13.0 ± 0.2	13.0 ± 0.2
D	21.0 ± 0.8	21.0 ± 0.8
E	2.0 ± 0.5	2.0 ± 0.5
N	60.0 <sup>+1.0</sup> / <sub>0</sub>	80.0 ± 1.0
W <sub>1</sub>	△ 9.0 <sup>+1.0</sup> / <sub>0</sub>	9.4 ± 1.0
W <sub>2</sub>	11.4 ± 1.0	13.4 ± 1.0

PACKING QUANTITY

PACKING CODE	TYPE	REEL (pcs.)
5	K <sub>1</sub>	4,000
	J <sub>1</sub> , J <sub>2</sub> , H <sub>1</sub> , H <sub>2</sub>	3,000
	H <sub>3</sub> , G <sub>2</sub> , G <sub>3</sub>	2,000
7	K <sub>1</sub>	20,000
	J <sub>1</sub> , J <sub>2</sub> , H <sub>1</sub> , H <sub>2</sub>	12,000
	H <sub>3</sub> , G <sub>2</sub>	10,000
	G <sub>3</sub>	6,000

Reference

NAME	FILM CHIP CAPACITOR ECHU (X)
TYPE NAME	ECHU 1C*** () X5 " 1C*** () X7
DRAWING No.	CW-H-802H (2/2)

Film Capacitor Division  
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