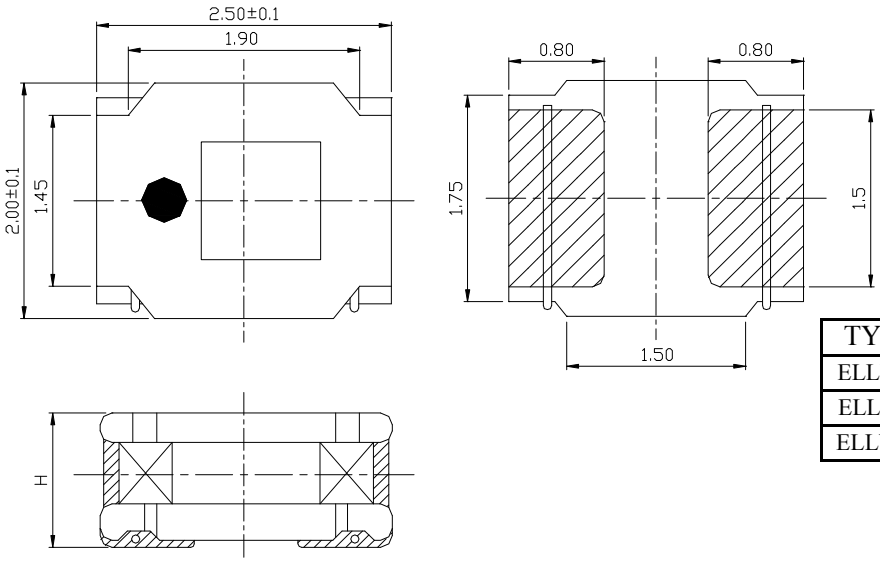
SPECIFICATION (APPEARANCE)	(R - 0) CE151-IN-xxxxxS
Part Name CHIP CHOKE COIL (ELLY*J TYPE)	7 - 1

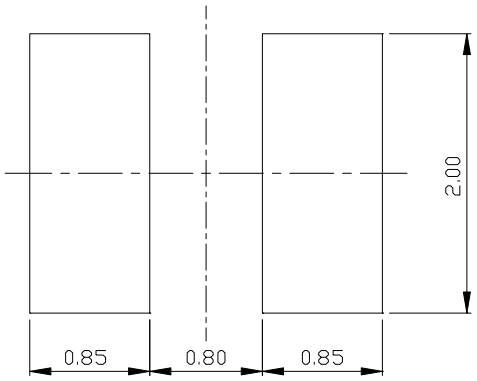
APPEARANCE & DIMENSIONS (UNIT mm)

For Reference Only

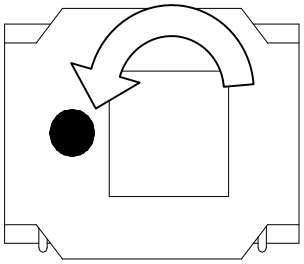


TYPE	H
ELLYEJ	0.90 ±0.1mm
ELLYFJ	1.10 ±0.1mm
ELLYGJ	1.40 ±0.1mm

RECOMMENDED LAND PATTERNS (TOP VIEW)



WINDING DIRECTION



PART NUMBER

PANASONIC'S P/N E L L Y □ J □□□ N □

1 2 3 4

1	Height	E: 1.00mm max. F: 1.20mm max. G: 1.50mm max.
2	Inductance	2.7µH: 2R7 22µH: 220 100µH: 101
3	Tolerance	N: ±30% M: ±20%
4	Customer division	

Date 27-Apr-11	CCBG COIL DEPARTMENT	APPROVED S.Morimoto	CHECKED Michael	PREPARED KH Lim

SPECIFICATION

Part Name

CHIP CHOKE COIL (ELLYFJ TYPE)

For Reference Only

ELECTRICAL CHARACTERISTICS

CUSTOMER'S PART NUMBER	PANASONIC'S PART NUMBER	INDUCTANCE NOMINAL [μH]	INDUCTANCE TOL.	DCR(20°C) ±20% [Ω]	*SATURATION RATED CURRENT [mA]	*TEMPERATURE RISE CURRENT [mA]	Marking
ELLYFJR47N	ELLYFJR47N	0.47	±30%	0.048	2500	2150	5
ELLYFJ1R0N	ELLYFJ1R0N	1.0		0.073	2200	1750	A
ELLYFJ1R5N	ELLYFJ1R5N	1.5		0.10	1650	1450	C
ELLYFJ2R2M	ELLYFJ2R2M	2.2	±20%	0.13	1550	1300	D
ELLYFJ3R3M	ELLYFJ3R3M	3.3		0.23	1200	980	E
ELLYFJ4R7M	ELLYFJ4R7M	4.7		0.33	1080	820	H
ELLYFJ5R6M	ELLYFJ5R6M	5.6		0.35	1000	800	J
ELLYFJ6R8M	ELLYFJ6R8M	6.8		0.53	880	640	K
ELLYFJ100M	ELLYFJ100M	10.0		0.62	730	600	M
ELLYFJ150M	ELLYFJ150M	15.0		1.00	590	470	O
ELLYFJ220M	ELLYFJ220M	22.0		1.65	400	370	R

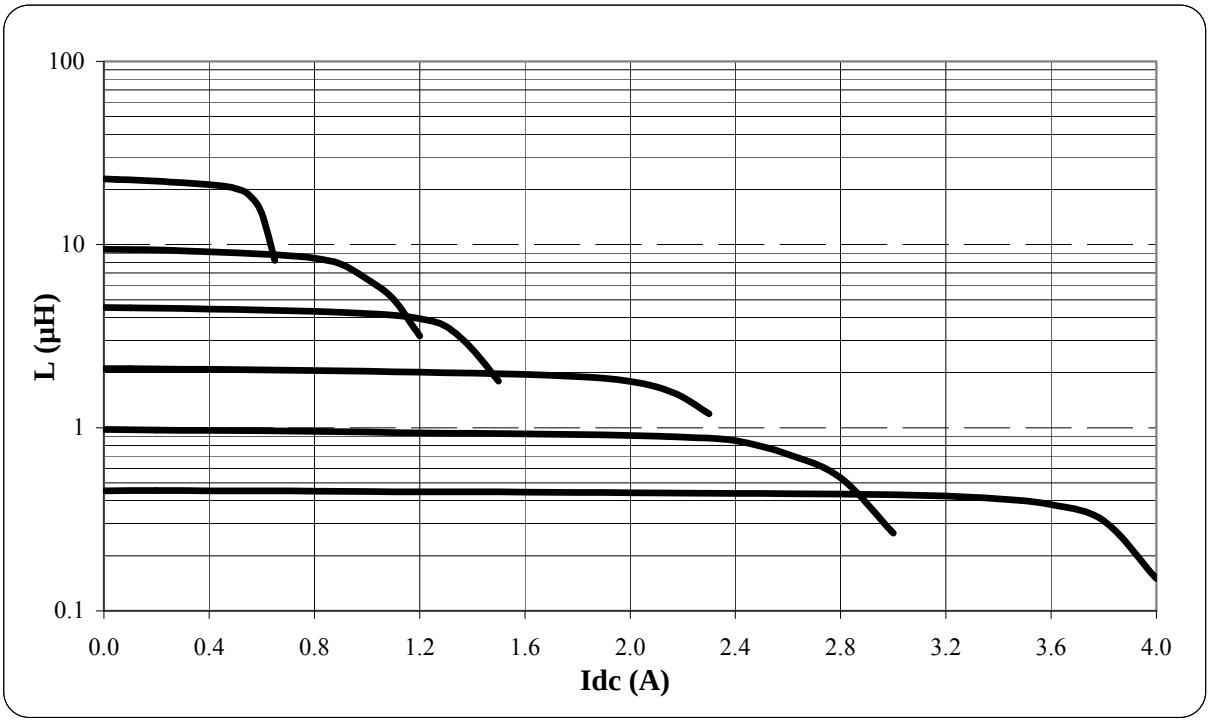
*Saturation Rated Current :
This DC current which causes a 30% inductance reduction from its nominal value.

*Temperature Rise Current :
This indicates the value of current when temperature rising dt/t= 40°C (at 20°C) typical.

Test Condition (Inductance):
1MHz, 0.3Vrms

TYPICAL ELECTRICAL CHARACTERISTICS

INDUCTANCE VS. DC SUPERPOSITION CHARACTERISTICS



Date 27-Apr-11	CCBG COIL DEPARTMENT	APPROVED	CHECKED	PREPARED
		S.Morimoto	Michael	KH Lim

SPECIFICATION (RELIABILITY)

CE151-IN-xxxxxS

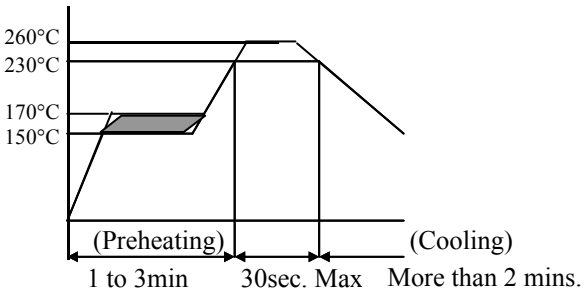
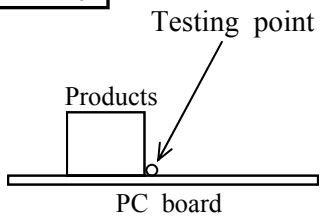
Part Name

CHIP CHOKE COIL

	ITEM	SPECIFICATION	TEST METHOD / CONDITION
	Appearance and Structure	(1) The appearance shall be no damage practically harmful. (2) Other items shell be in accordance with the appearance and the structure in the individual specification.	For Reference Only
	Insulation Resistance	More than 100 [MΩ]	After applying DC100[V].
	Withstand Voltage	There shall be no abnormal.	After applying DC100V for 60 [s]. Between core and coil.
	Moisture Sensitivity	The Moisture Sensitivity Level is 1* **Floor life is limited to 1 year at 30°C/85% RH*	Floor Life (Out of bag) at ≤ 30°C / 85% [RH].
	Operating temp. range	-40～105 ［℃］ (Including self - temperature rise)	
ENVIRONMENTAL CHARACTERISTICS	Moisture Life	(1) There shall not be case deformation or change in appearance. (2) There shall not be any shorting or disconnection.	With rated current applied, coil shall be subjected to 90 to 95% [RH] at 60±2°C for 500±8 [h]. Measurements shall be made after 1[h] stabilization at room temperature.
ENVIRONMENTAL CHARACTERISTICS	High Temp. Life	(1) There shall not be case deformation or change in appearance. (2) There shall not be any shorting or disconnection.	With rated current applied, coil shall be stored at 85±2°C for 500±8 [h]. Measurements shall be made after 1[h] stabilization at room temperature.
ENVIRONMENTAL CHARACTERISTICS	Cold Resistance	Inductance shall not change more than ±10%	Coil shall be stored at -40±2°C for 500±8 [h]. Measurements shall be made after 1[h] stabilization at room temperature.
ENVIRONMENTAL CHARACTERISTICS	Heat Resistance	Inductance shall not change more than ±10%	Coil shall be stored at 85±2°C for 500±8 [h]. Measurements shall be made after 1[h] stabilization at room temperature.
ENVIRONMENTAL CHARACTERISTICS	Moisture Resistance	(1) Inductance shall not change more than ±10% (2) There shall be no abnormal in withstand voltage.	Coil shall be subjected to 90~95% RH at 60±2 [°C] for 500±8 [h]. Measurements shall be made after 1[h] stabilization at room temperature.
ENVIRONMENTAL CHARACTERISTICS	Thermal Shock	(1) There shall not be case deformation or change in appearance. (2) Inductance shall not change more than ±10%	-40±2°C(0.5h) <==> 85±2°C (0.5h) 200 cycles. Measurements shall be made after 1[h] stabilization at room temperature.
ENVIRONMENTAL CHARACTERISTICS	Temp. Characteristics	Inductance shall not change more than ±15%	-25 to 85°C. Standard: Values at 20°C. (at Idc=0 [A])
PHYSICAL CHARACTERISTICS	Vibration Resistance	(1) There shall not be case deformation or change in appearance. (2) Inductance shall not change more than ±10%	After vibrating at frequencies ranging from 10 to 55 [Hz] (10 to 55 to10/min.) with amplitude for 1.5 [mm] for 2±0.1[h] each X-Y-Z axis.
PHYSICAL CHARACTERISTICS	Terminal Strength	Terminal shall not come out.	Pulling strength of terminal: 0.98[N] { 0.1kgf } for 30 [s]
PHYSICAL CHARACTERISTICS	Solderability	Solder shall be attached more than 90% around the dipped portion.	After fluxing, coil shall be dipped in melted solder bath (M705) at 255±5°C for 3±0.5 [s].
PHYSICAL CHARACTERISTICS	Soldering Heat Resistance	(1) There shall not be case deformation or change in appearance. (2) Inductance shall not change more than ±10%	The coil shall be subjected to reflow soldering 2 times. Measurements shall be made after 1[h] stabilization at room temperature. Reflow soldering: Preheating: 150±10°C, 3 ［min］. Solder dipping: 250±10°C, 10±0.5 ［s］

Date		APPROVED	CHECKED	PREPARED
27-Apr-11	CCBG COIL DEPARTMENT	S.Morimoto	Michael	KH Lim

SPECIFICATION (COMMON)	(R - 0) CE151-IN-xxxxxS
CHIP CHOKE COIL PRECAUTION FOR USE OF THE COIL.	7 - 4

ITEM	CONTENTS	REMARKS
REFLOW SOLDERING	HOT BLAST REFLOW FURNACE. **For Reference Only**  Peak Temperature: 260°C max, 5sec max. Time above 200°C: 90 sec max	 Reflow soldering should be limited to 2 times.
WASHING OF BOARD	When the soldered PC board washed by fleon or others, you are requested to contact engineering department as for washer and washing conditions advance.	
RESOLDERING WITH A SOLDERING IRON	The temperature of the tip of the soldering iron should be 360°C or less, 4 seconds. And resoldering with a soldering iron should be limited to 1 time, and after that should be cooling these.	
MOUNTING SIDE	External force must be less than 5.0[N] : while mounting.	
OTHERS	The customer is requested to store the products at the normal temperature (-5°C to 35°C) and the normal humidity (85%RH max.) in the packages we supplied. The package shall not be exposed to direct sunlight and harmful gas, and care should be taken so as not cause dew.	

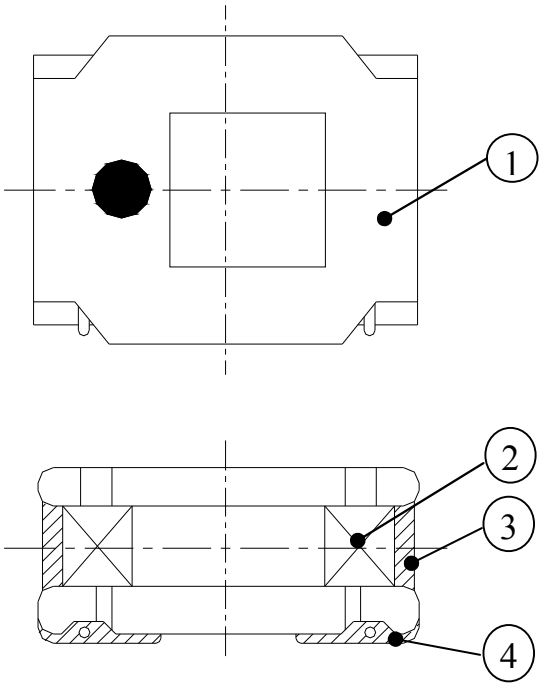
1. Don't make space between the coil and PC board.
2. Don't heap up the coil.
3. Be careful not to pressing force to the terminal.
4. Don't use the coil dipped on the floor.

Date 27-Apr-11	CCBG COIL DEPARTMENT	APPROVED S.Morimoto	CHECKED Michael	PREPARED KH Lim

SPECIFICATION (MATERIAL)	(R - 0) CE151-IN-xxxxxS
Part Name CHIP CHOKE COIL (ELLY*J TYPE)	7 - 5

For Reference Only

STRUCTURE



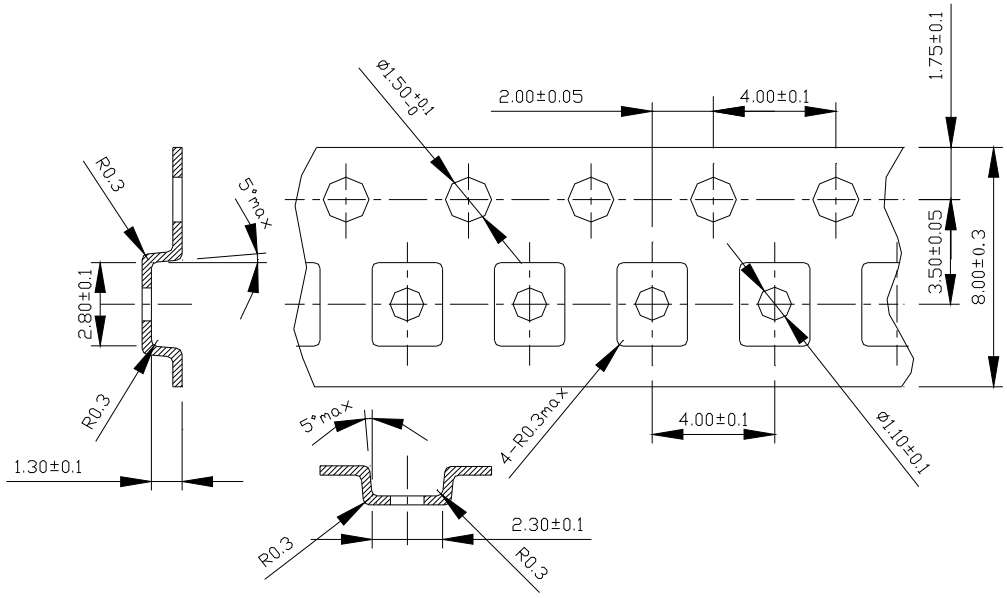
MATERIAL LIST

ITEM	PART NAME	MATERIALS	MANUFACTURE
1	Core	Ferrite	TDK CO.,LTD. HITACHI METALS LTD. ZHEJIANG DONGYANG MAGNETIC ENTERPRISE CO. HUOH YOW ENTERPRISE CO.,LTD
2	Coil	Polyurethane Enameled Copper Wire	RIKEN ELECTRIC WIRE CO.,LTD. ELEKTRISOLA SDN. BHD. TOUTOKU ELECTRIC CO.,LTD. DAIICHI DENKO CO.,LTD. FURUKAWA ELECTRIC CO.,LTD. HITACHI DENNSENN LTD.
3	Adhesive	Epoxy Resin + Magnetic Material	OPTIONAL
4	Plating	Ag+Ni+Sn	OPTIONAL

Date 27-Apr-11	CCBG COIL DEPARTMENT	APPROVED S.Morimoto	CHECKED Michael	PREPARED KH Lim

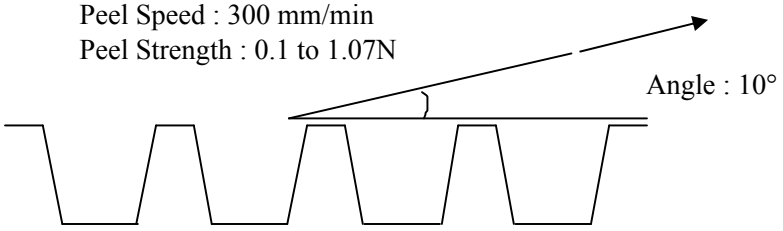
For Reference Only

(1) CARRIER TAPE DIMENSIONS.



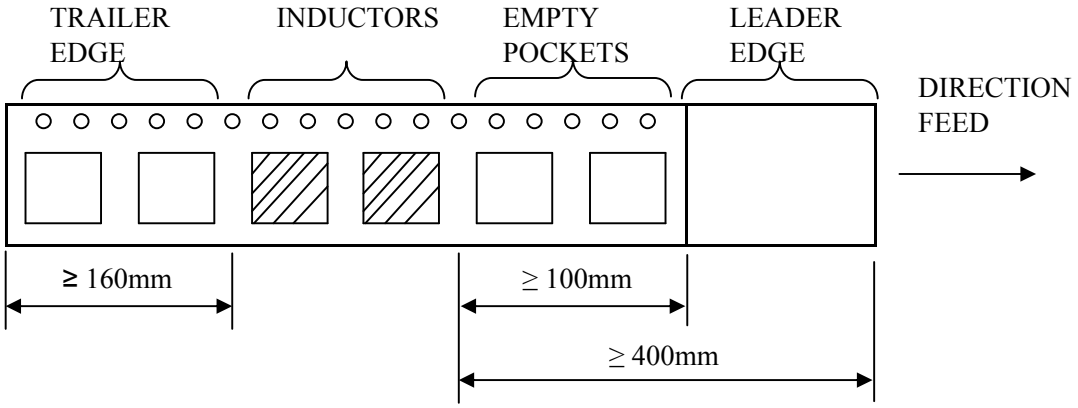
(2) COVER TAPE PEEL STRENGTH AND TEST METHOD

Peel Speed : 300 mm/min
Peel Strength : 0.1 to 1.07N



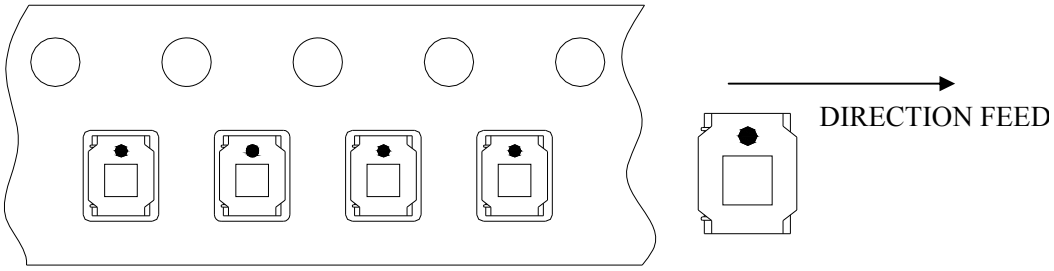
Breaking Strength
Both the cover tape and the carrier tape shall have a breaking strength of at least 10N.

(3) PACKAGING



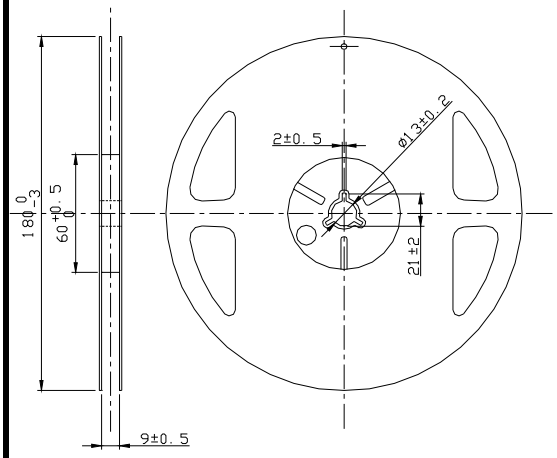
For Reference Only

(4) TAPING



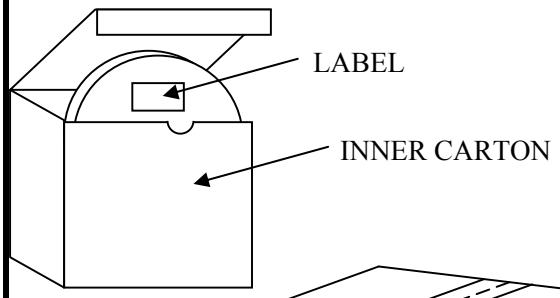
There shall not be more empty pockets than two and those pockets shall not be consecutive.

(5) REEL DIMENSIONS



(1) QUANTITY PER REEL:
3,000PCS
(2) WHITE PLASTIC REEL

(6) PACKED FORM



(1) QUANTITY OF REEL PER INNER CARTON:
5 REELS (15,000PCS)
(2) QUANTITY OF INNER CARTON PER EXPORT CARTON:
4 INNER CARTON (60,000PCS)
(3) MARKING: CUSTOMER'S P/N, OUR P/N, QUANTITY AND Lot No.