






# SPECIFICATION

MODEL : IL05AL(R)2017ABE

## I S O L A T O R

PARTRON CO., LTD.  
22-6, Secwoo-Dong, Hwaseong-Si,  
Gyeonggi-Do, Korea, 445-170

By designed	By checked	By approved
		

**1. Application**

This specification covers the isolator used in 2010 ~ 2025 MHz.

**2. Part No**

IL 05 A L(R) 2017 AB E

IL : Isolator Group  
05 : Size [ 5\*5\*2.3t ]  
A : Fabrication condition  
L(R) : Signal direction  
2017 : Center frequency [ 2017.5MHz ]  
AB : Fabrication condition  
E : Embossed plastic reel

**3. Lot numbering**

P 0 1

P : Partron co., Ltd.  
0 : Year [ 0 : 2010 1 : 2011 ..... ]  
1 : Month [ 1:JAN .... 9:SEP 0:OCT N:NOV D:DEC]

**4. Test condition**

4-1 Typical condition

Temperature : 20°C  
Humidity : 65 %RH

4-2 Standard condition

Temperature : 5 ~ 35°C  
Humidity : 45 ~ 85 %RH

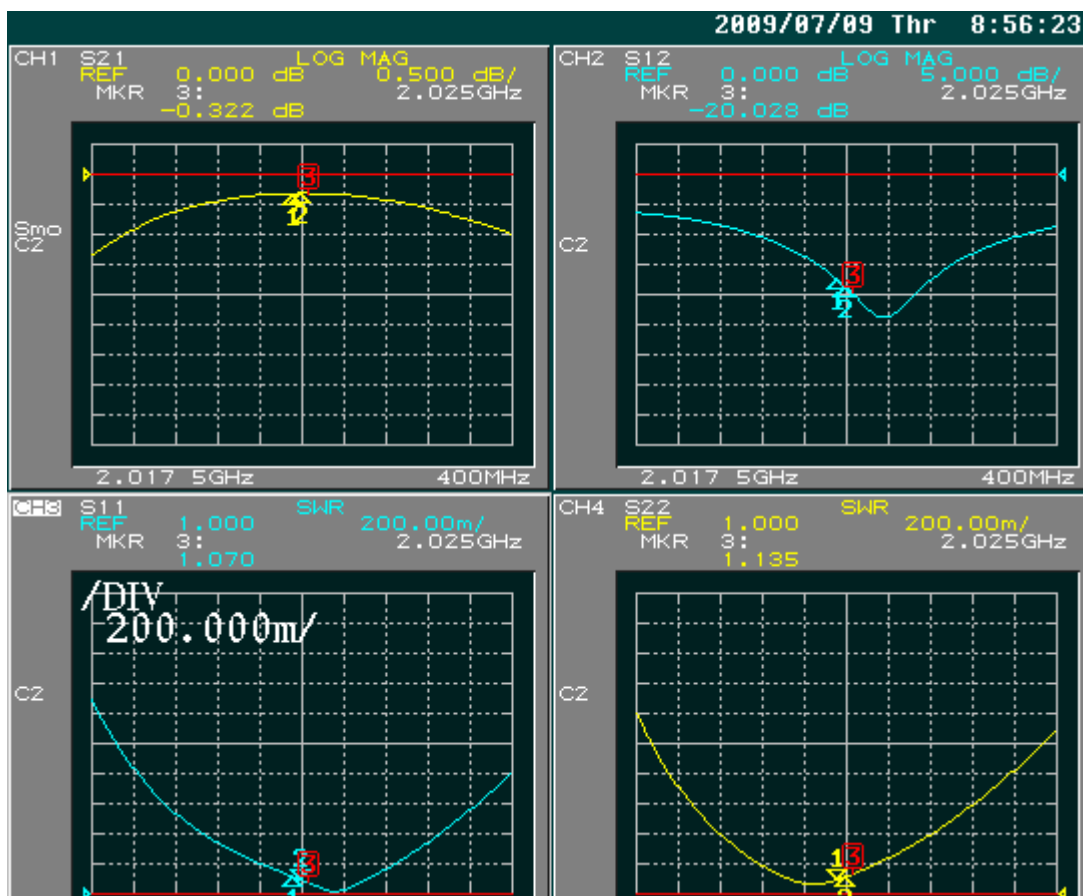
**5. Temperature range**

5-1 Operating : -40 ~ 85°C  
5-2 Storage : -40 ~ 85°C

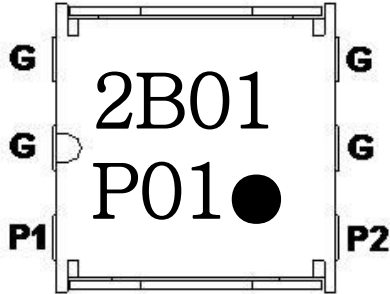
**6. Electrical characteristics**

ITEM	UNIT	SPECIFICATION	REMARKS
Frequency range	MHz	2010 ~ 2025	
Operating temp.	℃	-40 ~ +85	
Insertion loss	dB max.	0.70	
Isolation	dB min.	15	
VSWR (Forward)	max.	1.5	
(Reverse)	max.	1.5	
Rating power	W max.	5.0	
Reflection power	W max.	1.0	
Impedance	Ω	50	

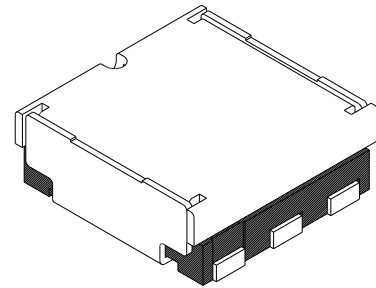
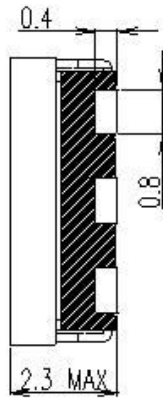
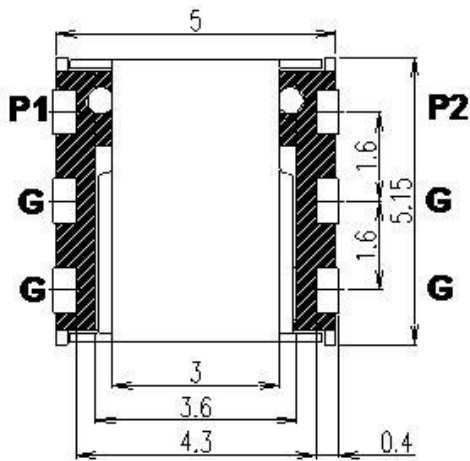
1. Case surface temperature should be less than 100℃ under the operation.
2. The measurement are done with PARTRON's standard test fixture, with which the insertion loss error within 0.15dB.
3. Agilent 8753 series N/A & Advantest R3767CH is used in the measurements.

**7. Plot graph**


**8. Mechanical specification**

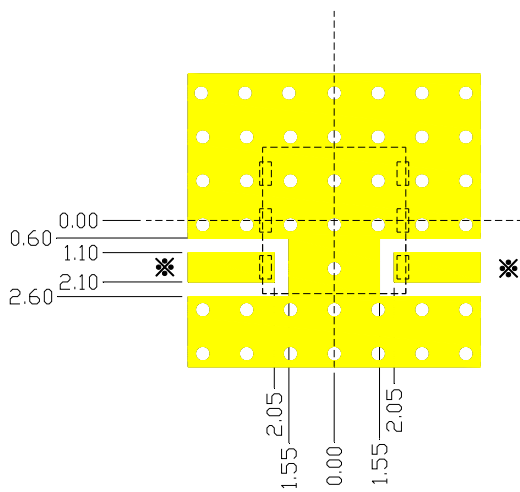


**P1,P2** : IN/OUT Port  
**G** : Ground  
**2B01** : 2017.5MHz[fc]  
**P01●** :  
**P01●** R type [signal flow direction P2 → P1]  
**●P01** L type [signal flow direction P1 → P2]  
 [or left side dot is L type,  
 right side dot is R type]  
**P** Partron co., Ltd.  
**0** Year [2010]  
**1** Month [January]  
 (Oct,Nov,Dec denoted as **O,N,D** )

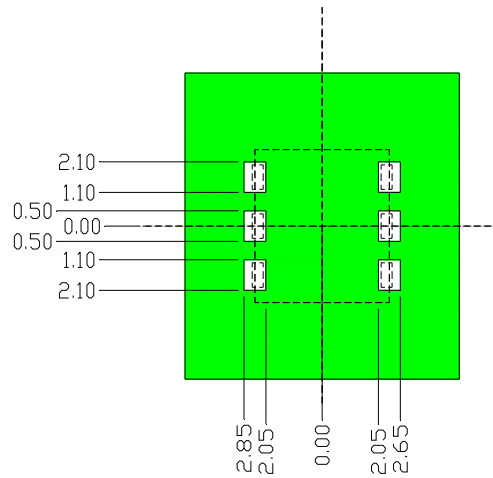


Scale : N/S  
 Unit : mm  
 Tolerance : ±0.2

### 9. Recommended soldering pattern



**Recommended land pattern**



**Recommended resist pattern**

**Note**

※ 50 ohm transmission line

1. PCB material : FR-4 0.8t [copper clad 35um]
2. Color sections : copper pattern, solder mask pattern
3. Bottom side : ground plane
4. Unit : mm

### 10. Reliability specification

#### 10-1 Environment test

ITEM	TEST CONDITION	LIMIT
High temperature resistance	+85°C ± 3°C, 120hr	*After the test, specimen would be kept at 25°C ± 5°C for 1 hours *specimen shell meet the electrical specification
Low temperature resistance	-40°C ± 3°C, 120hr	
Humidity resistance	+70°C ± 3°C, RH90~95%, 120hr	

#### 10-2 Thermal shock test , reflow test

ITEM	TEST CONDITION	LIMIT
Thermal shock	-40°C ± 3°C(2Hr) ↔ +85°C ± 3°C(2Hr) , cycle : 15cycle	SAME as 10-1
Reflow	Continuos 2times of Pre-heating: 130~180±5°C, 90~180 sec Peak heating: 260±5°C, 10sec Max	

### 10.3 Mechanical test

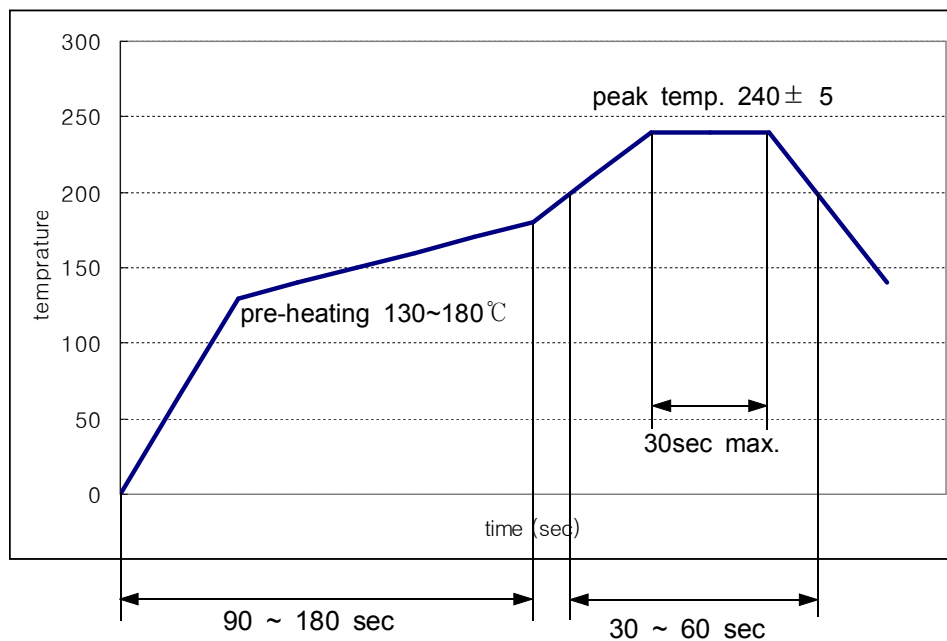
ITEM	TEST CONDITION	LIMIT
Random vibration	Frequency 10~55Hz , $10 \times 9.8m/s^2$ (G), Sweep time 2Hr , X.Y.Z each direction	*After the test, specimen shell meet the electrical specification
Drop	Height 152cm , 20 times	

### 11. Soldering condition

#### 11-1 Manual soldering (by soldering iron)

- Pre-heating temperature :  $120^{\circ}C$  , 60 ~ 300 sec.
- Soldering temperature :  $340^{\circ}C \pm 5^{\circ}C$  , 5sec max per each terminal

#### 11-2 Reflow profile



\* The maximum reflow temperature is guaranteed by  $260^{\circ}C/10sec$ .

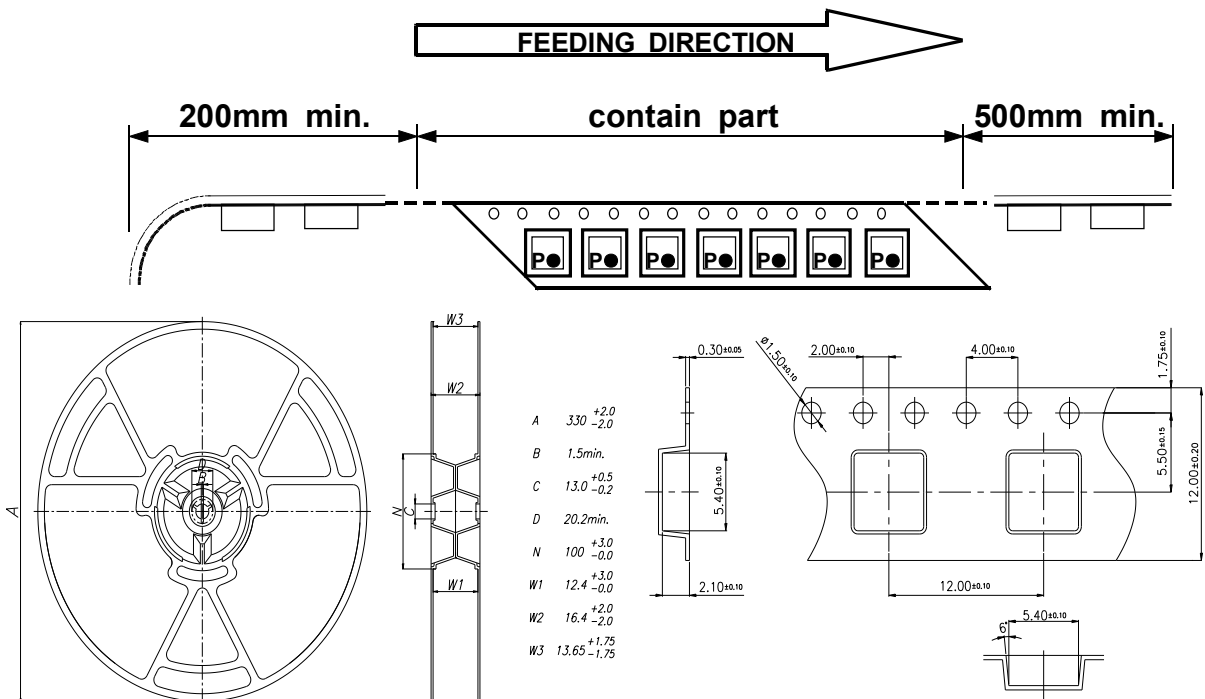
**12. Guaranty**

Products having trouble or failure under normal use within one year of delivery shall be repaired or exchanged at no charge.

**13. Packing**

13-1 Packing reel & carrier

- a. Package quantity : 2,000pcs / reel
- b. Reel & carrier drawing



### 13-2 Packing box

#### a. Inner box

; Put 1 reel which contains 2,000 isolators into inner box



#### b. Out box

; Put 5 inner boxes which contains every 1 reel into out box

