




SPECIFICATION

MODEL : IL05AR2017ABE

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 _____ system

2. Part No

IL 05 A R 2017 AB E

- IL : Isolator Group
- 05 : Size [5*5*2.0t]
- A : Fabrication condition
- R : Signal direction
- 2017 : Center frequency [2017.5MHz]
- AB : Fabrication condition
- E : Embossed plastic reel

3. Lot numbering

B 3 3

- B : Partron co., Ltd. B-type
- 3 : Year [3 : 2003 4 : 2004]
- 3 : Month [1:JAN 9:SEP O:OCT N:NOV D:DEC]

4. Test condition

4-1 Typical condition

- Temperature : 20℃
- Humidity : 65 %RH

4-2 Standard condition

- Temperature : 5 ~ 35℃
- Humidity : 45 ~ 85 %RH

5. Temperature range

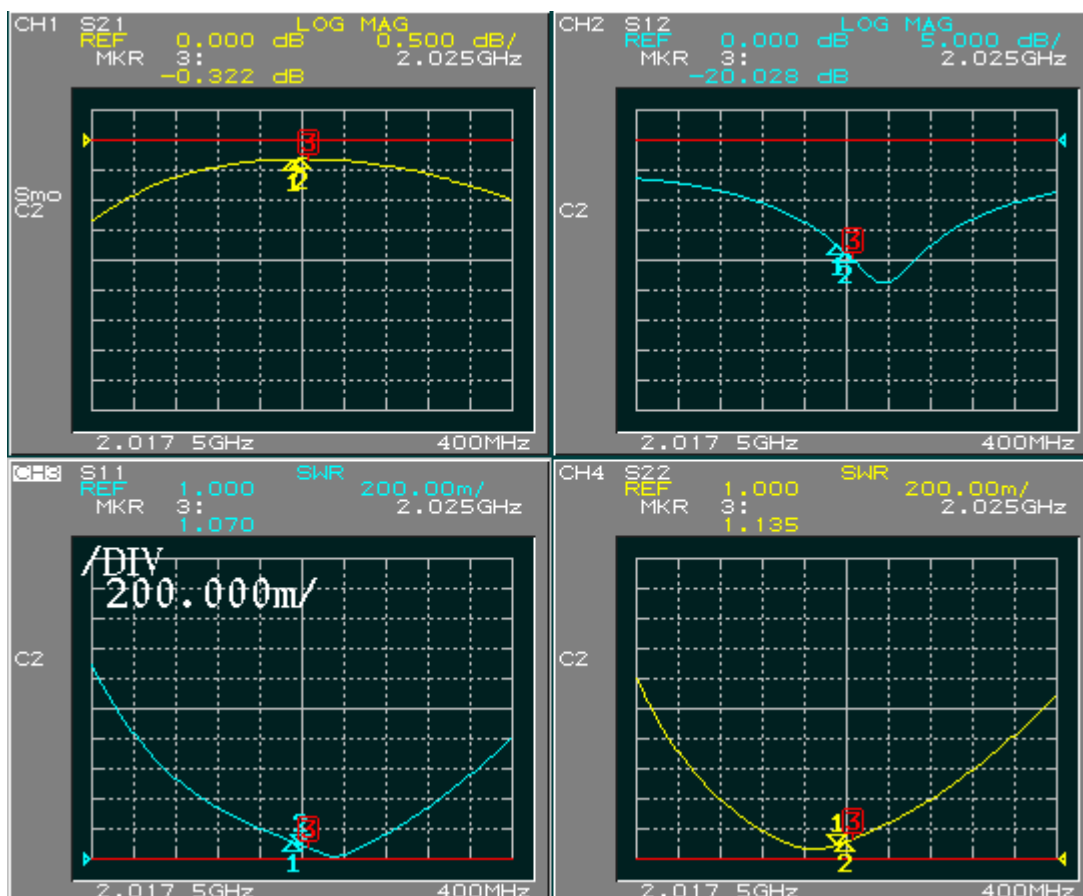
- 5-1 Operating : -40 ~ 85℃
- 5-2 Storage : -40 ~ 85℃

6. Electrical characteristics

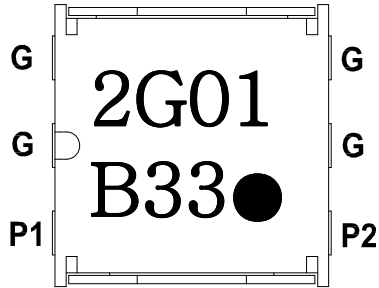
ITEM	UNIT	SPECIFICATION	REMARKS
Frequency range	MHz	2010 ~ 2025	
Operating temp.	°C	-40 ~ +85	
Insertion loss	dB max.	0.70	
Isolation	dB min.	15	
VSWR (Forward)	max.	1.5	
(Reverse)	max.	1.5	
Rating power	W max.	5.0	
Reflection power	W max.	1.0	
Impedance	Ω	50	

1. Case surface temperature should be less than 100°C 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.

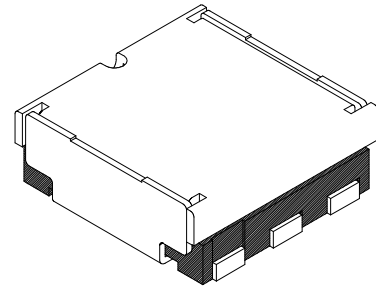
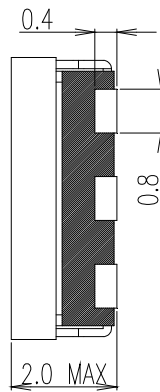
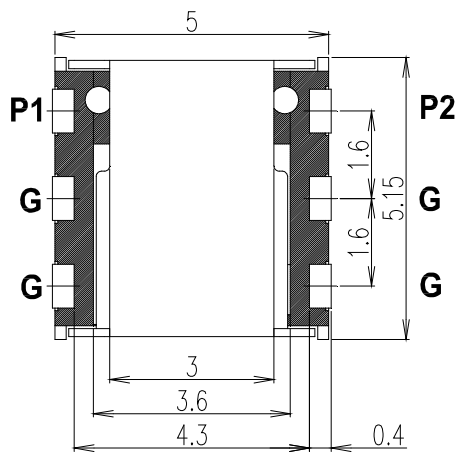
7. Plot graph



8. Mechanical specification

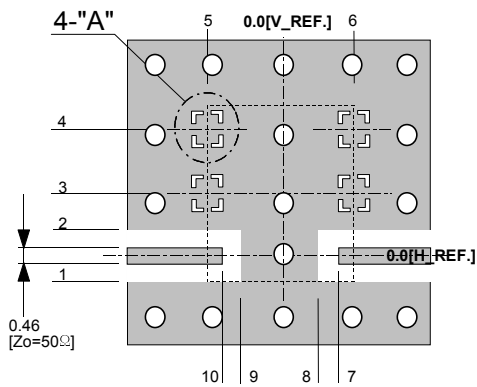


- P1,P2** : IN/OUT Port
- G** : Ground
- 2G01** : 2017.5MHz[fc]
- B33●** :
- B33●** R type [signal flow direction P2 → P1]
- B33** L type [signal flow direction P1 → P2]
[or left side dot is L type, right side dot is R type]
- B** Partron co., Ltd. B-type
- 3** Year [2003]
- 3** Month [March]
(Oct,Nov,Dec denoted as **O,N,D**)

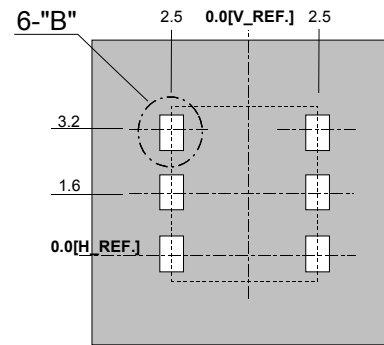


Scale : N/S
Unit : mm
Tolerance : ±0.2

9. Recommended soldering pattern

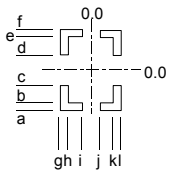


symbol	Dimension
1	0.83
2	0.83
3	1.6
4	3.2
5	2.5
6	2.5
7	2.1
8	1.5
9	1.5
10	2.1



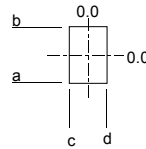
recommended resist pattern

recommended land pattern



detail_A

symbol	dimensions	symbol	dimensions
a	0.6	g	0.45
b	0.4	h	0.3
c	0.2	i	0.15
d	0.2	j	0.15
e	0.4	k	0.3
f	0.6	l	0.45



detail_B

symbol	dimensions
a	0.5
b	0.5
c	0.3
d	0.3

NOTE

1. PCB Material : FR-4 0.3t [copper clad 35um]
2. Gray sections : Copper pattern , Solder mask pattern
3. Bottom side : Ground Plane
4. UNIT : m/m

10. Reliability specification

10-1 Environment test

ITEM	TEST CONDITION	LIMIT
High temperature resistance	+85 °C ± 3 °C, 120hr ± 2hr	*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 ± 2hr	
Humidity resistance	+70 °C ± 3 °C, RH90~95% ,120hr ± 2hr	

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

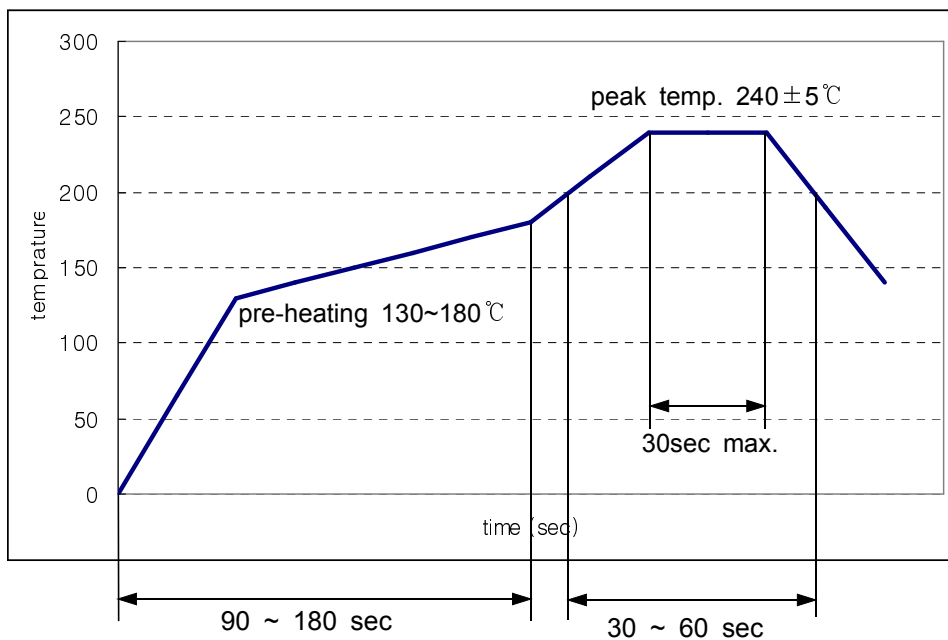
ITEM	TEST CONDITION	LIMIT
Random vibration	Frequency 10~55Hz , $10 \times 9.8m/s^2$ (G), Sweep time 2Hr , X.Y.Z each direction	*After the test, specimen shall meet the electrical specification
Drop	Height 152cm , 20 times	

11. Soldering condition

11-1 Manual soldering (by soldering iron)

- Pre-heating temperature : 120°C , 60 ~ 300 sec.
- Soldering temperature : 340°C ± 5°C , 5sec max per each terminal

11-2 Reflow profile



* The maximum reflow temperature is guaranteed by 260°C/10sec.

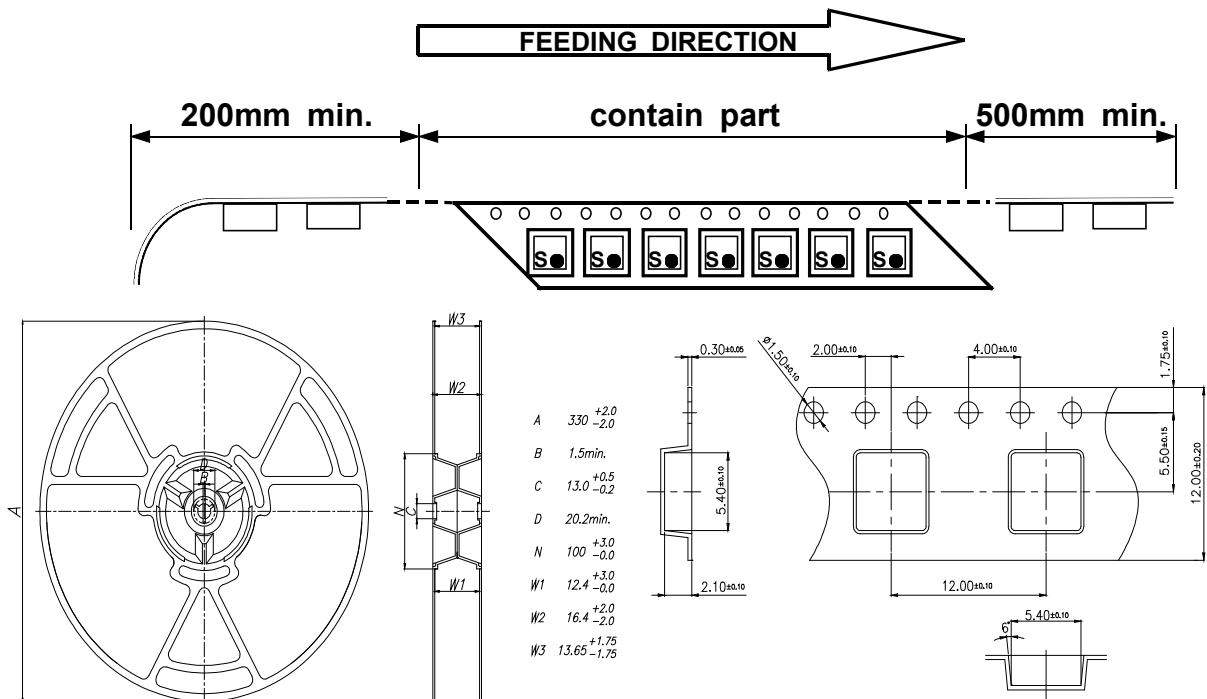
12. Guaranty

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

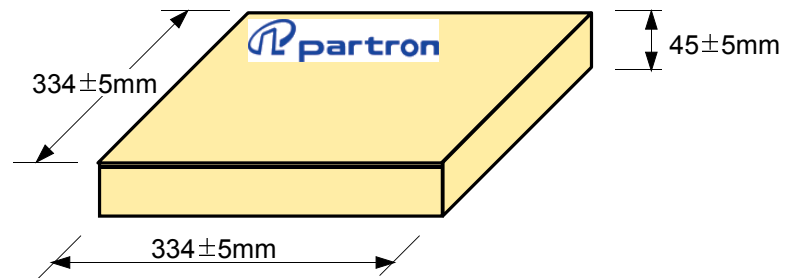
- a. Package quantity : 2,000pcs / reel
- b. Reel & carrier drawing



13-2 Packing box

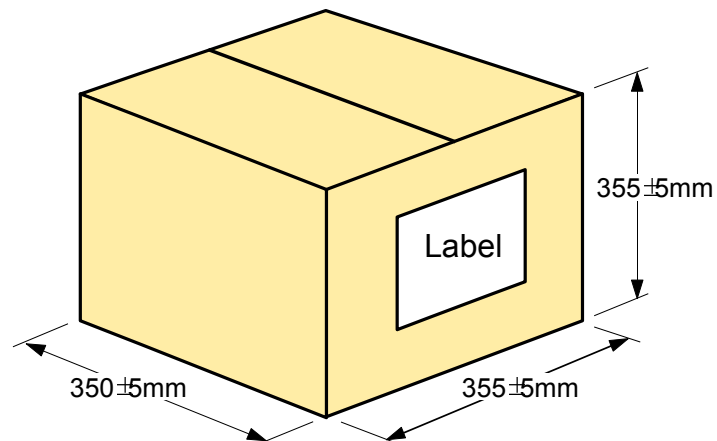
a. Inner box

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



b. Out box

; Put 6 inner boxes which contains every 1 reel into out box



14.Revision

Revision no	Originator	Descr of changes	Date of changes
1.0	AN J.Y.	Issued	2009. 06. 01.