



# Test Report

**Sample Name:** Discrete components

**Sample Type:** IRFR5305TRPBF

**Manufacturer:** INFINEON

**Customer:**

Chuangxin Online Test Center Laboratory

February 28, 2024

# Test Report

Customer:

Customer Address: N/A

Sample Name: Discrete components

Sample Type: IRFR5305TRPBF

Manufacturer: INFINEON

Date Code: 2323

Package Type: TO-252-3

Sample Amount: 1 PCS

Check Amount: 1 PCS

Arrived Date: 02/26/2024

Testing Date: 02/26/2024/15: 20 - 02/27/2024/16: 50

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Issued by

(Stamp)



Tested by \_\_\_\_\_

Inspected by \_\_\_\_\_

Approved by \_\_\_\_\_

# Test Item

External visual inspection

Pin correlation test

Programming test

Solderability analysis

Radiography(X-ray)

XRF test

Key functional test(KFT)

Baking

Tape and reel

Top permanency test

Internal visual inspection

SAT test

Cross section

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# Methods & Equipment

## 1.1 Test standard:

- **AS6081A-2023**

## 1.2 Optical microscope:

- Equipment spec:

Optical microscope: SEZ-260 X7-X45(Due date: 7/18/2024)

Metalloscope: FJ-5A X50-X1000 (Due date: 7/18/2024)

## 1.3 Digital caliper:

- Equipment spec:

Digital caliper: (0~150) mm(Due date: 7/18/2024)

## 1.4 Functional test equipment:

- Equipment spec:

Static parameter tester: HUSTEC-500A-MT(Due date: 7/18/2024)

## 1.5 Laser lid opener:

- Equipment spec:

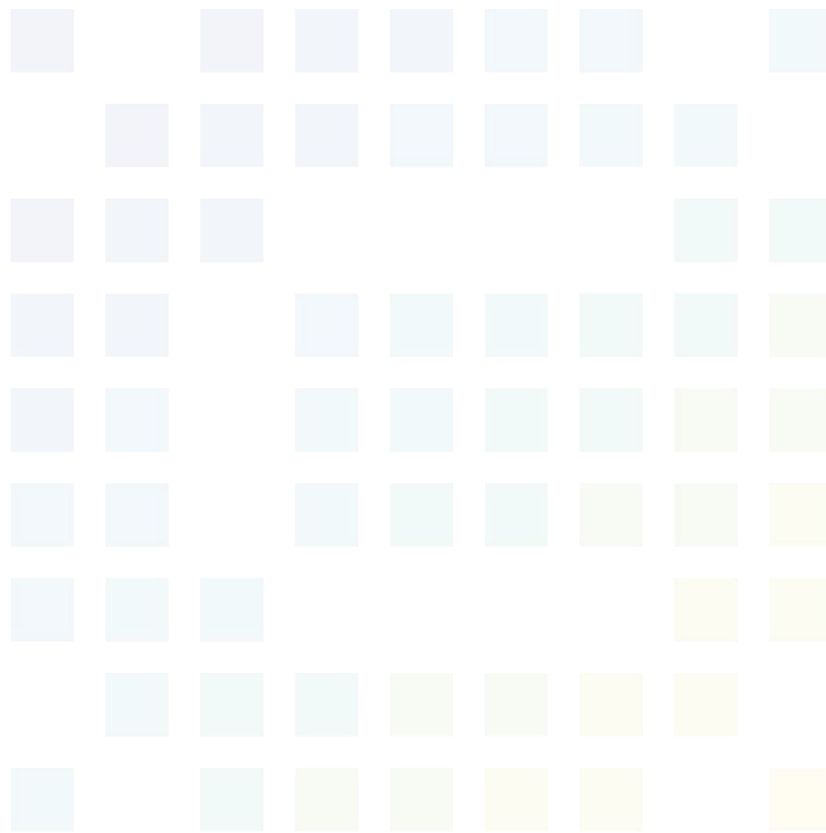
Laser lid opener: DM300-IC(Due date: 7/18/2024)

## 1.6 Product datasheet:

- 《INFINEON IRFR5305TRPBF》:

[https://www.infineon.com/dgdl/Infineon-IRFR5305-DataSheet-v01\\_01-EN.pdf?file](https://www.infineon.com/dgdl/Infineon-IRFR5305-DataSheet-v01_01-EN.pdf?file)

[Id=5546d462533600a401535632522820ff](https://www.infineon.com/dgdl/Infineon-IRFR5305-DataSheet-v01_01-EN.pdf?fileId=5546d462533600a401535632522820ff)



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# Analysis Summary

## External visual inspection:

Applicable standard: [AS6081A-2023](#)

External visual inspection on 1 PCS sample. No secondary coating, sanding marks, crack or chips were observed on all inspected. Leads were in acceptable condition.

Devices package and dimension matched to manufacturer's specification.

All devices passed the external visual inspection.

### (1) Specification dimension:

- E: 6.35-6.73 mm
- H: 9.40-10.41 mm
- A: 2.18-2.39 mm

### (2) Measurement dimension:

- E: 6.51 mm
- H: 9.94 mm
- A: 2.34 mm

External visual criteria	Yes/No	Result
Mix-up	No	Pass
Top scratches	No	Pass



<b>Bottom scratches</b>	No	Pass
<b>Chips</b>	No	Pass
<b>Residues</b>	No	Pass
<b>Indentation</b>	No	Pass
<b>Contamination</b>	No	Pass
<b>Cracks</b>	No	Pass
<b>Copper defect</b>	No	Pass
<b>Oxidization</b>	No	Pass
<b>Coplanarity</b>	Yes	Pass
<b>Sanding marks</b>	No	Pass
<b>Secondary coating</b>	No	Pass
<b>Top permanency test</b>	N/A	N/A

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## Key functional test(KFT) results:

<b>Key functional test(KFT)</b>	<b>Results:</b>
<b>Total quantity tested</b>	1 PCS
<b>Total quantity passed</b>	1 PCS
<b>Total quantity failed</b>	0 PCS
<b>Note</b>	All devices passed the parameter test.

<b>Key functional test(KFT) results:</b>	
<b>Tested parameters</b>	<b>Results</b>
<b>Drain-to-Source Breakdown Voltage</b>	Pass
<b>Gate Threshold Voltage</b>	Pass
<b>Drain-to-Source Leakage Current</b>	Pass

## Internal visual inspection:

**Applicable standard: AS6081A-2023**

Internal visual inspection was verified on 1 PCS sample. Manufacturer I.R.CORP marking with 1995 copyright year and die marking GENS-FET were found on the die surface. Devices confirmed to be the I.R.CORP device.

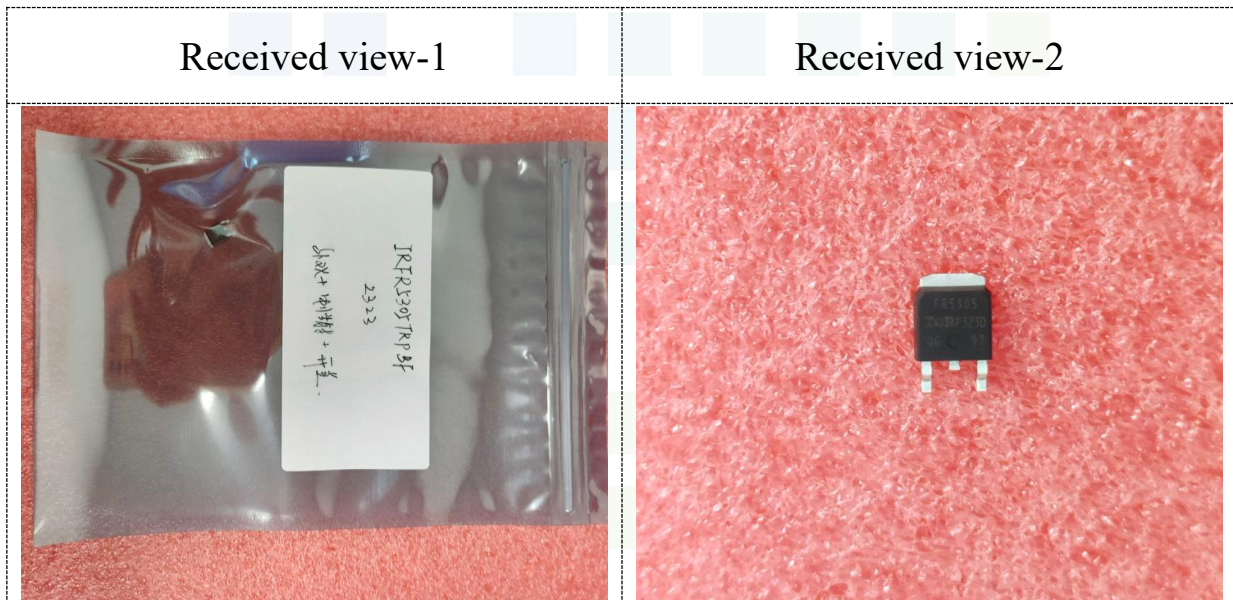




### 3. Receiving inspection:

<b>Gross Weight</b>	5 g	<b>Parts Total</b>	1 PCS
<b>Number of Boxes</b>	N/A	<b>Full Label</b>	N/A
<b>Package Type</b>	Bulk	<b>Moisture Protection</b>	N/A
<b>MSL</b>	N/A	<b>ESD Protection</b>	Exist

Note: All devices contain 1 PCS sample.



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## 4. External visual inspection:

Applicable standard: **AS6081A-2023**

Ambient temperature: 23.5 °C Relative humidity: 56.2 % RH

External visual inspection on 1 PCS sample. No secondary coating, sanding marks, crack or chips were observed on all inspected. Leads were in acceptable condition.

Devices package and dimension matched to manufacturer's specification.

All devices passed the external visual inspection.

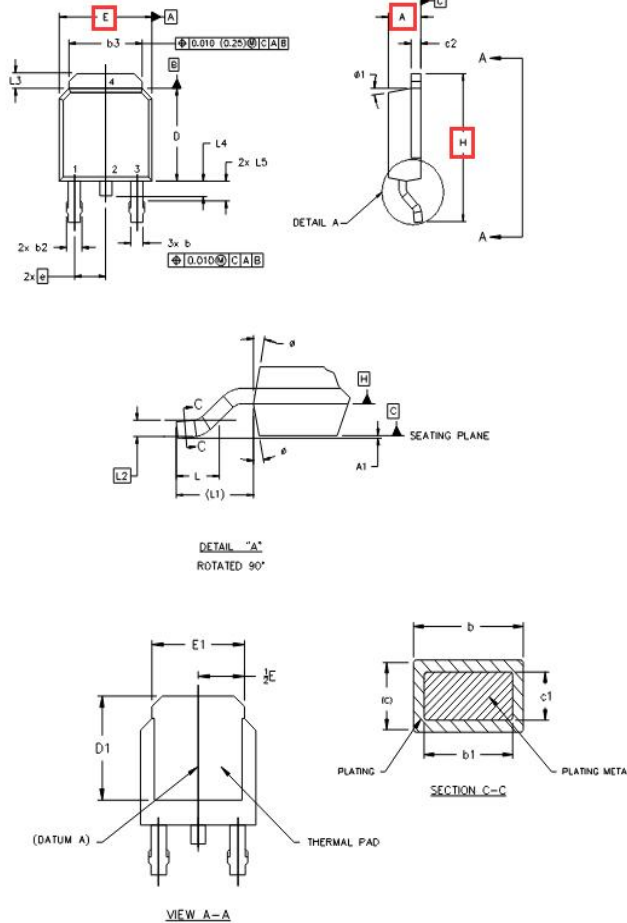
### (1) Specification dimension:

- E: 6.35-6.73 mm
- H: 9.40-10.41 mm
- A: 2.18-2.39 mm

### (2) Measurement dimension:

- E: 6.51 mm
- H: 9.94 mm
- A: 2.34 mm

## Package dimension



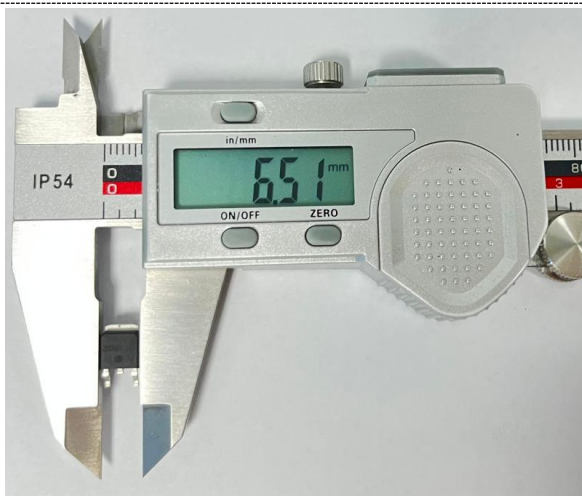
NOTES:

- 1.0 DIMENSIONING AND TOLERANCING PER ASME Y14.5 M-1
- 2.0 DIMENSIONS ARE SHOWN IN INCHES [MILLIMETERS]
- 3.0 LEAD DIMENSION UNCONTROLLED IN L5
- 4.0 DIMENSION D1 AND E1 ESTABLISH A MINIMUM MOUNTING
- 5.0 SECTION C-C DIMENSIONS APPLY TO THE FLAT SECTION .010 [0.2540 FROM THE LEAD TIP.
- 6.0 DIMENSION D & E DO NOT INCLUDE MOLD FLASH. MOLD .005" (0.127) PER SIDE. THESE DIMENSIONS ARE MEASU EXTREMES OF THE PLASTIC BODY.
- 7.0 OUTLINE CONFORMS TO JEDEC OUTLINE T0-252AA.

SYMBOL	DIMENSIONS				NOTES
	MILLIMETERS		INCHES		
	MIN.	MAX.	MIN.	MAX.	
A	2.18	2.39	.086	.094	
A1		0.13		.005	
b	0.64	0.89	.025	.035	5
b1	0.64	0.79	.025	0.031	5
b2	0.76	1.14	.030	.045	
b3	4.95	5.46	.195	.215	
c	0.46	0.61	.018	.024	5
c1	0.41	0.56	.016	.022	5
c2	.046	0.89	.018	.035	5
D	5.97	6.22	.235	.245	6
D1	5.21	-	.205	-	4
E	6.35	6.73	.250	.265	6
E1	4.32	-	.170	-	4
e	2.29		.090 BSC		
H	9.40	10.41	.370	.410	
L	1.40	1.78	.055	.070	
L1	2.74 REF.		.108 REF.		
L2	0.051 BSC		.020 BSC		
L3	0.89	1.27	.035	.050	
L4		1.02	.045	.040	
L5	1.14	1.52	.045	.060	3
ø	0"	10"	0"	10"	
ø1	0"	15"	0"	15"	

D = 6.51 mm

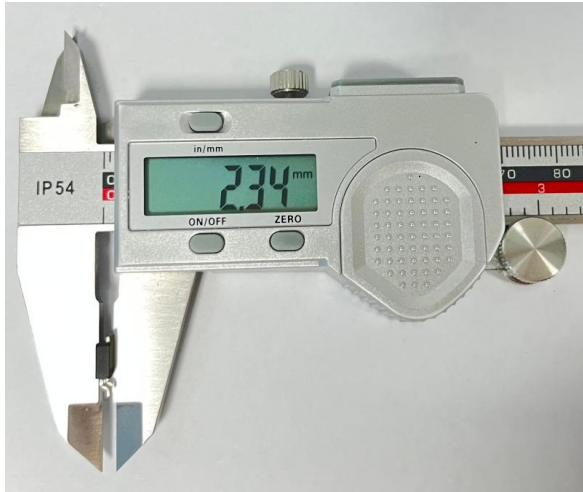
H = 9.94 mm



A = 2.34 mm

Top

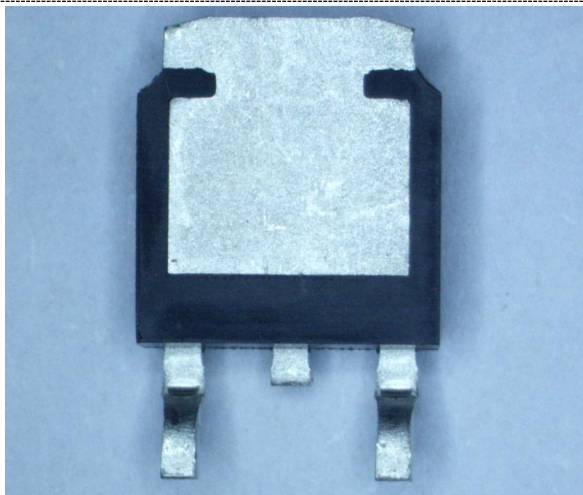




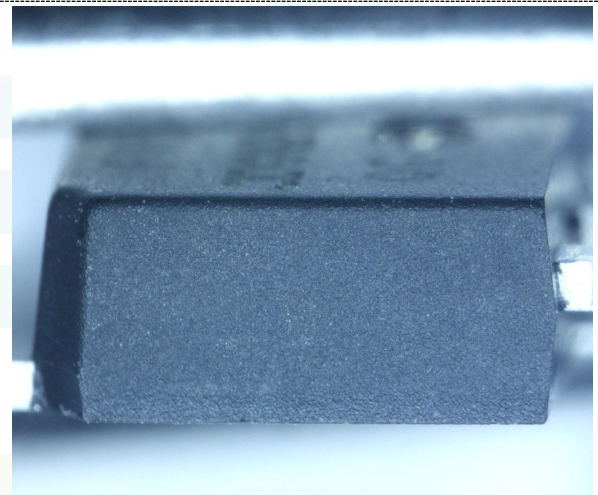
Bottom



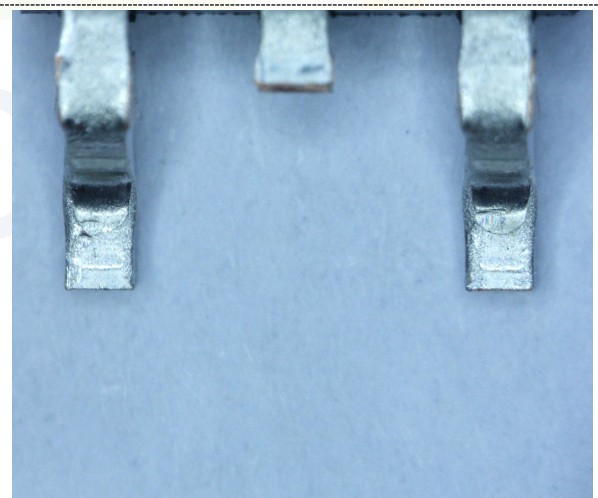
Side



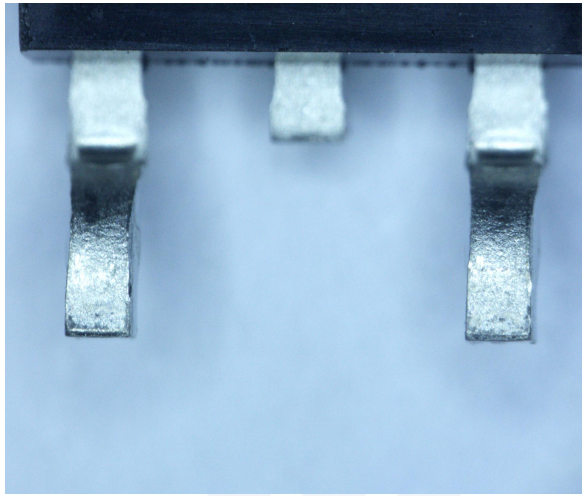
Marking



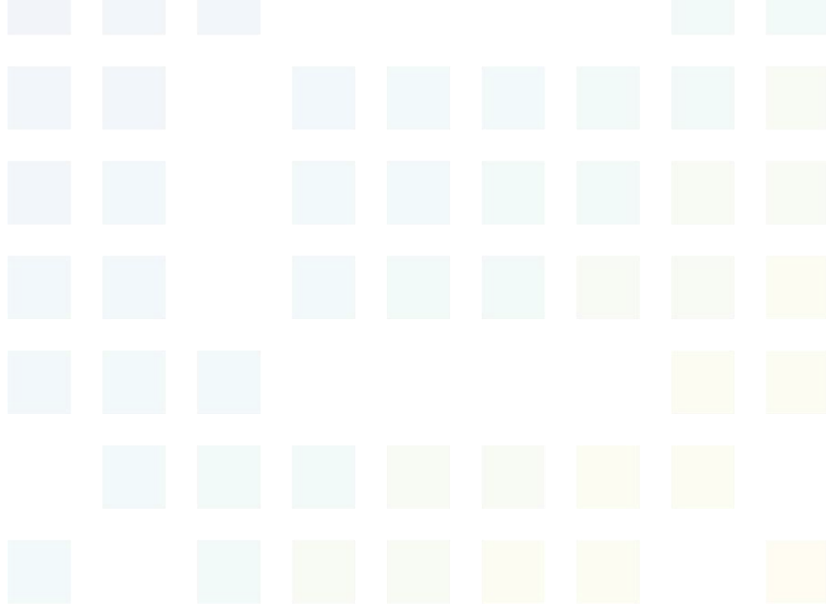
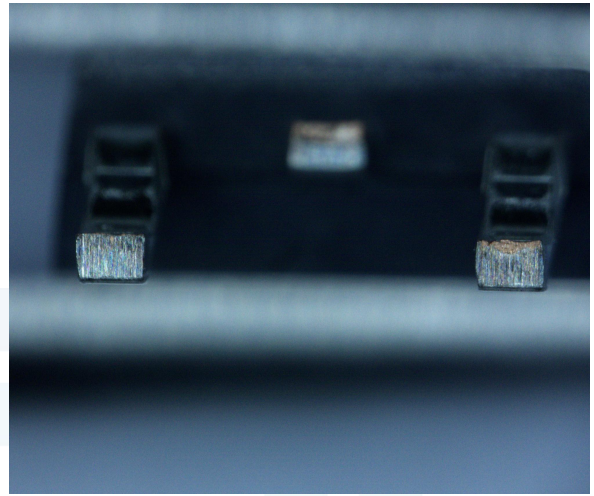
Top leads



Bottom leads



Leads end



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## 5. Key functional test(KFT):

Applicable standard: **AS6081A-2023**

Ambient temperature: 24.1 °C Relative humidity: 54.1 % RH

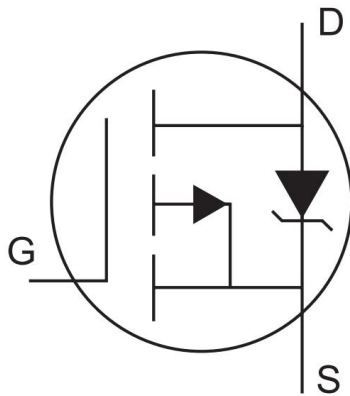
Using static parameter tester verified the following parameters:

- Drain-to-Source Breakdown Voltage:  $V_{dss}$ ;
- Gate Threshold Voltage:  $V_{gth}$ ;
- Drain-to-Source Leakage Current:  $I_{dss}$ ;

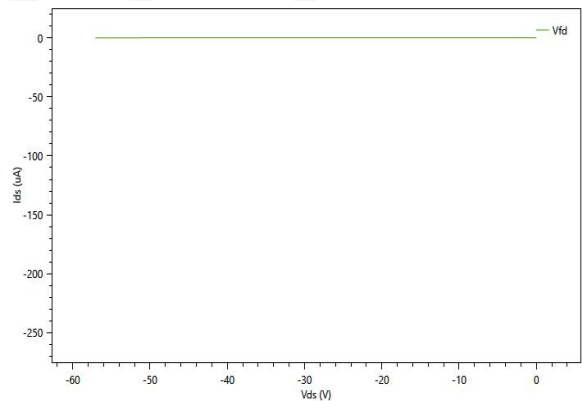
### Detection content

Test Items	Test Conditions	Range	Measured Values	Result
$V_{gth}$	$V_{gs}=V_{ds}$ $I_d=-0.25mA$	-2V~-4V	-3.4297	Pass
$I_{dss}$	$V_{ds}=-55V$	0uA~-25uA	-0.0509	Pass
$V_{dss}$	$I_{ds}=-250uA$	-55V~-110V	-57.0698	Pass

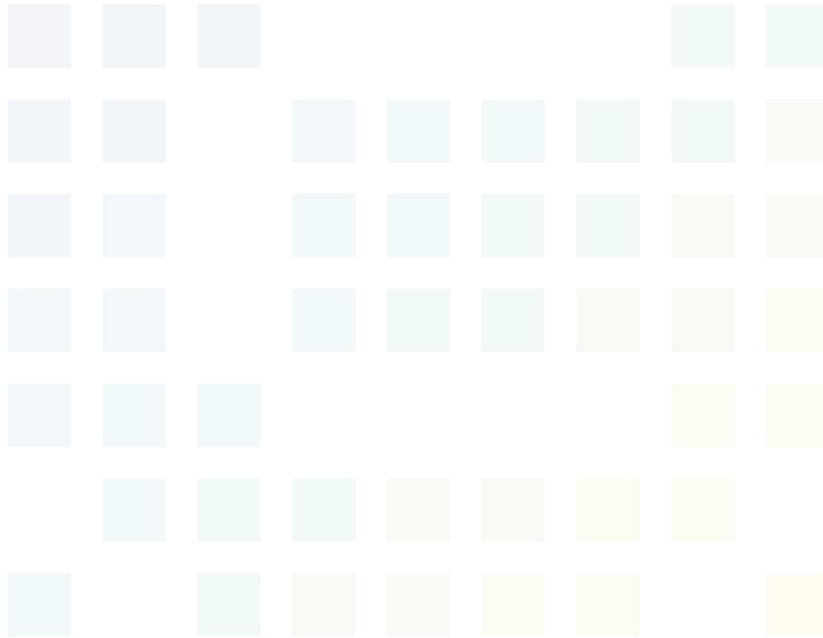
### Device pinout



### $I_{ds}$ - $V_{ds}$ characteristic curve



<b>Key functional test(KFT)</b>	<b>Results:</b>
<b>Total quantity tested</b>	1 PCS
<b>Total quantity passed</b>	1 PCS
<b>Total quantity failed</b>	0 PCS
<b>Note</b>	All devices passed the parameter test.



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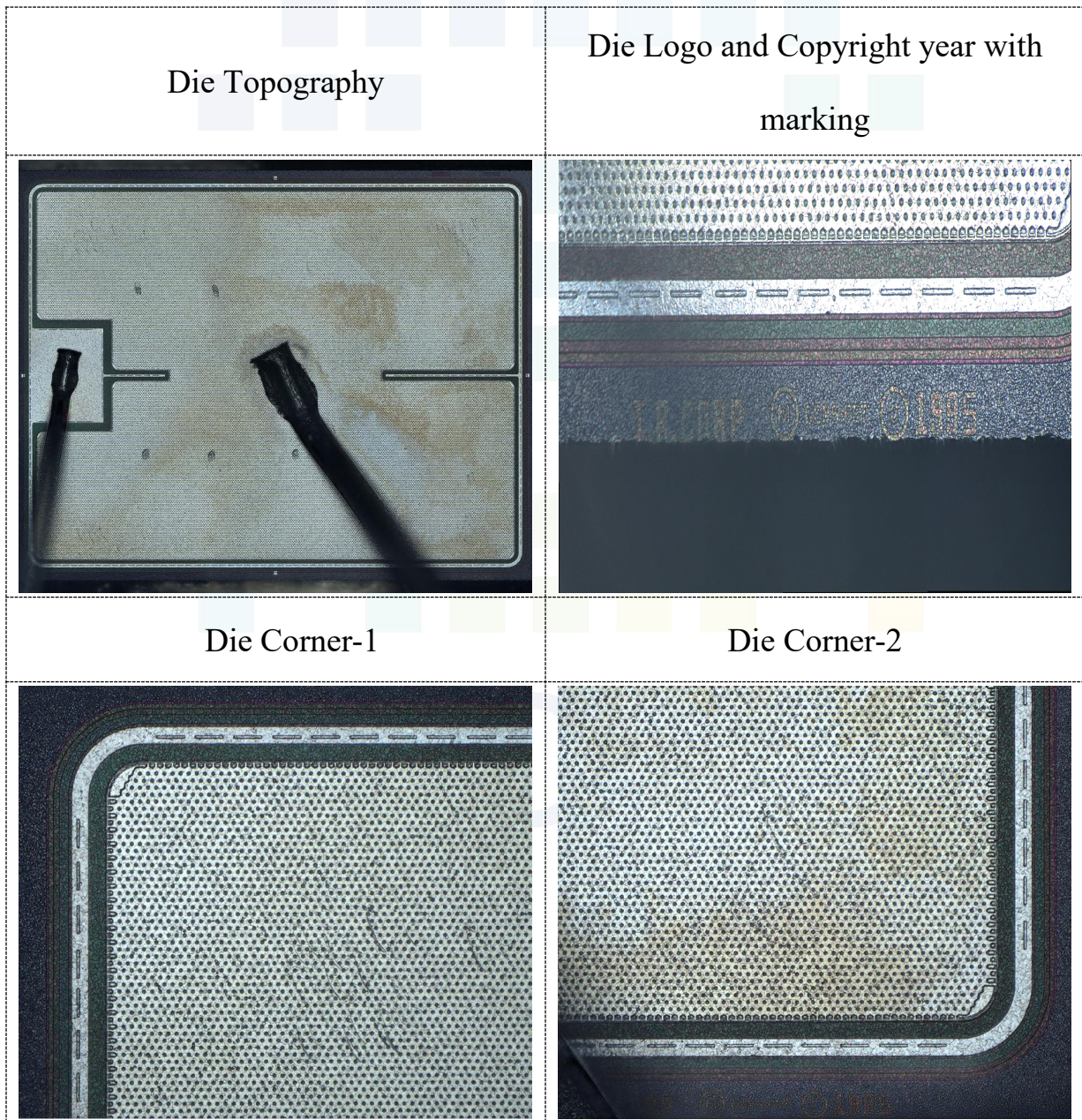


## 6. Internal visual inspection:

Applicable standard: **AS6081A-2023**

Ambient temperature: 23.2 °C Relative humidity: 56.5 % RH

Internal visual inspection was verified on 1 PCS sample. Manufacturer I.R.CORP marking with 1995 copyright year and die marking GENS-FET were found on the die surface. Devices confirmed to be the I.R.CORP device.



-End of Report-



## Disclaimer

1. The test report is invalid without the stamp of “company seal” and “cross-page seal”.
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4. A modified or partial copy of the test report is invalid.
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7. The \* indicates subcontract test data.



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