Microelectronics - BMEVIEEAB00 2020/21/2

Quiz navigation

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Finish review

Started on	Wednesday, 3 March 2021, 11:24 AM
State	Finished
Completed on	Wednesday, 3 March 2021, 11:29 AM
Time taken	5 mins 33 secs
Grade	**6.50** out of 10.00 (**65**%)

Question **1**
Incorrect
Mark 0.00 out of 1.00
Flag question

In our laboratory, the aluminum wiring is created by using _____ bonding technique at room temperature.

- a. eutectic ✖
- b. ultrasonic
- c. vaporizing
- d. melting
- e. supersonic

Your answer is incorrect.

Question **2**
Correct
Mark 1.00 out of 1.00
Flag question

The gold-silicon compound used in the post process is in _____ compound/liquid phase.

- a. melting
- b. fragmented
- c. eutectic point ✔
- d. vaporizing
- e. plasma

Your answer is correct.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

What is the typical wafer diameter in the labs of DED?

- a. 5 inch
- b. 10 inch
- c. 20 cm
- d. 10 cm
- e. 2 inch ✔

Your answer is correct.

Question **4**
Complete
Mark 1.00 out of 1.00
Flag question

What does class 10000 clean room mean?

10000 clean room means that particles which diameter is less than 0.5 micrometers their number is needed to be less than 10000

Comment:

Question **5**
Correct
Mark 1.00 out of

What is the pressure difference between the cleanroom and the outside of the lab?

- a. -50 Pa

1.00

Flag question

- b. 30 Pa ✔
- c. 100 kPa
- d. 100 Pa
- e. 500 Pa

Your answer is correct.

Question **6**

Correct

Mark 1.00 out of 1.00

Flag question

What is the wavelength of photolithography in the labs of DED?

- a. 465 nm ✔
- b. 13.5 nm
- c. 0.1 µm
- d. 50 nm
- e. 1 µm

Your answer is correct.

Question **7**

Incorrect

Mark 0.00 out of 1.00

Flag question

What kind of high temperature process can we do with our furnaces?

- ☐ a. Ion implantation
- ☐ b. Diffusion
- ☑ c. Sputtering ✖
- ☑ d. Epitaxial layer growth ✖
- ☐ e. Oxidation

Your answer is incorrect.

Question **8**

Partially correct

Mark 0.50 out of 1.00

Flag question

The dicing saw has an air-bearing design, which is needed because:

- ☑ a. RPM is too high. ✔
- ☑ b. the wafer is positioned using vacuum. ✖
- ☐ c. the vibration of the environment need to be damped.
- ☐ d. the temperature is too high.
- ☐ e. otherwise the dust particles may contaminate the equipment.

Your answer is partially correct.

You have correctly selected 1.

Question **9**

Correct

Mark 1.00 out of 1.00

Flag question

The diamond cutter uses vacuum ✔ to fix the wafer on the cutting table.

Your answer is correct.

Question **10**

Incorrect

Mark 0.00 out of 1.00

Flag question

Which one is cleaner: ISO class 6 or class 7?

- a. Class 7 ✖
- b. Class 6

Your answer is incorrect.

Finish review

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Started on	Wednesday, 3 March 2021, 10:58 AM
State	Finished
Completed on	Wednesday, 3 March 2021, 11:09 AM
Time taken	11 mins 20 secs
Grade	**8.33** out of 10.00 (**83**%)

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

The diamond cutter uses the middle of the frame ✔ to position the wafer.

Your answer is correct.

Question **2**
Correct
Mark 1.00 out of 1.00
Flag question

What is the temperature accuracy of our hotplate?

- a. ±2 °C ✔
- b. ±10°C
- c. ±20 °C
- d. ±0.2 °C

Your answer is correct.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

Which one is cleaner: ISO class 6 or class 7?

- a. Class 6 ✔
- b. Class 7

Your answer is correct.

Question **4**
Correct
Mark 1.00 out of 1.00
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Your answer is correct.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

How do we set the desired thickness of the photoresist?

- [x] a. Speed ✔
- [x] b. Time ✔
- [ ] c. Temperature
- [x] d. RPM ✔
- [ ] e. PWM
- [ ] f. Wavelength

Your answer is correct.

Question **6**
Correct
Mark 1.00 out of 1.00
Flag question

The diamond cutter uses vacuum ✔ to fix the wafer on the cutting table.

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Question **7**
Correct
Mark 1.00 out of 1.00
Flag question

The space between the chips on the wafer, where the dicing will happen is called ____.

- a. cutter plane.
- b. Intel road.
- c. dicing highway.
- d. cross-section.
- e. dicing street. ✔

Your answer is correct.

Question **8**
Partially correct
Mark 0.33 out of 1.00
Flag question

What does the bunny suit made of?

- ☐ a. flokon
- ☐ b. batist
- ☐ c. kevlar
- ☐ d. metal fiber
- ☐ e. wool
- ☐ f. carbon
- ☑ g. syntethic fiber ✔
- ☐ h. silk

Your answer is partially correct.
You have correctly selected 1.

Question **9**
Incorrect
Mark 0.00 out of 1.00
Flag question

In our laboratory, the aluminum wiring is created by using _____ bonding technique at room temperature.

- a. eutectic
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Correct
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- [ ] c. Temperature
- [x] d. RPM ✔
- [ ] e. PWM
- [ ] f. Wavelength

Your answer is correct.

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- e. 50 nm

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Finish review

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English (en) - Rysaskar Salimbay

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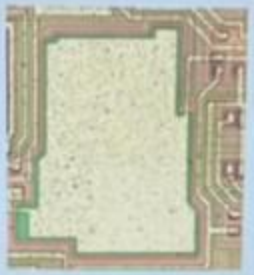
What type of electronic component can you see on the image?

What type of electronic component can you see on the image?



Select one or more:

a. transistor

b. resistor

c. capacitor

d. diode

19

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

a. capacitor

b. transistor

c. resistor

d. diode

Активация Windows

Чтобы активировать Windows, перейдите в раздел "Параметры".

09:56

22.03.2021

What type of electronic component can you see on the image?

Select one or more:

- a. diode
- b. capacitor
- c. transistor
- d. resistor

Question 17
Correct
Mark 1.00 out of 1.00
Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

- a. transistor
- b. diode
- c. resistor
- d. capacitor

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c. resistor

d. transistor

Question 15

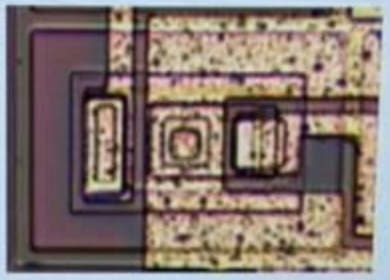
Correct

Mark 1.00 out of 1.00

Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?



Select one or more:

a. capacitor

b. transistor

c. resistor

d. diode

Question 16

Correct

Mark 1.00 out of 1.00

Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

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English (en) - Rysaskar Salimbay

Question 13
Correct
Mark 1.00 out of 1.00
Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

- a. capacitor
- b. diode
- c. resistor
- d. transistor

Question 14
Correct
Mark 1.00 out of 1.00
Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

- a. diode
- b. capacitor
- c. resistor
- d. transistor

Активация Windows

Чтобы активировать Windows, перейдите в раздел "Параметры".

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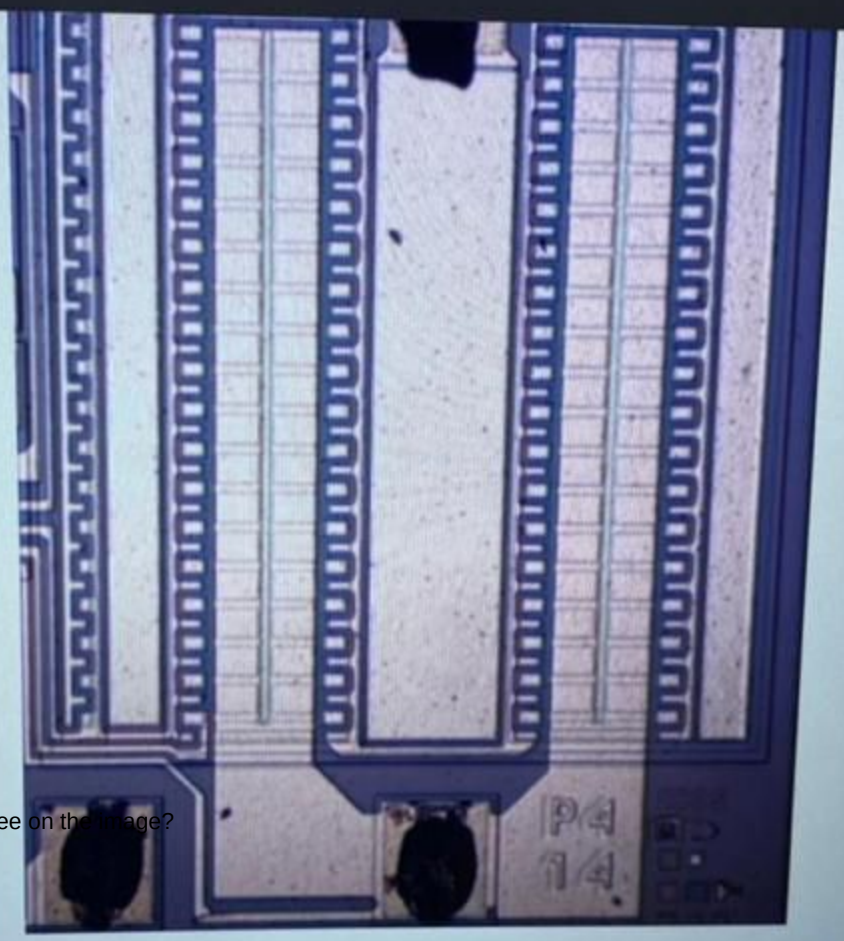

What type of electronic component can you see on the image?

Select one or more:

- a. diode
- b. resistor
- c. capacitor
- d. transistor

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English (en) Rysaskar Salimbay

Question 11
Correct
Mark 1.00 out of 1.00
Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:
- a. capacitor
- b. resistor
- c. diode
- d. transistor

Question 12
Correct
Mark 1.00 out of 1.00
Flag question

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

РУС 09:56 22.03.2021

9

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

- a. resistor
- b. transistor ✓
- c. capacitor
- d. diode

10

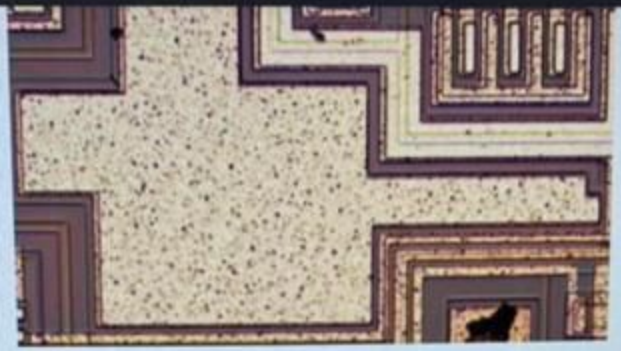
What type of electronic component can you see on the image?

Select one or more:

- a. capacitor
- b. resistor
- c. diode
- d. transistor

11

What type of electronic component can you see on the image?



Select one or more:

- a. diode
- b. resistor
- c. capacitor
- d. transistor

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

- a. transistor
- b. diode
- c. capacitor
- d. resistor

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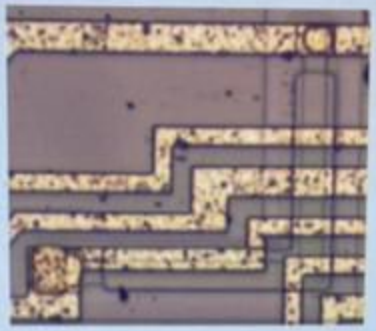

Select one or more:

- a. capacitor
- b. diode
- c. transistor
- d. resistor

What type of electronic component can you see on the image?

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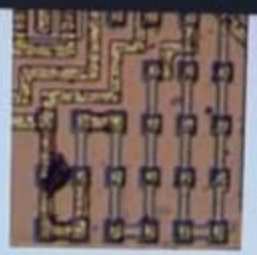
Select one or more:

- a. resistor
- b. capacitor



Select one or more:

- a. transistor
- b. diode
- c. capacitor
- d. resistor

What type of electronic component can you see on the image?

Question 4

Correct

Mark 1.00 out of 1.00

Flag question

What type of electronic component can you see on the image?

Select one or more:

- a. resistor
- b. transistor
- c. diode
- d. capacitor

Time taken 45 mins 50 secs
Grade 17.00 out of 19.00 (89%)

What type of electronic component can you see on the image?

Select one or more:

- a. transistor
- b. diode
- c. resistor
- d. capacitor

What type of electronic component can you see on the image?

What type of electronic component can you see on the image?

Select one or more:

- a. resistor
- b. transistor
- c. capacitor
- d. diode

What type of electronic component can you see on the image?

Microelectronics - BMEVIEEAB00 2020/21/2

Started on	Wednesday, 10 March 2021, 11:49 AM
State	Finished
Completed on	Wednesday, 10 March 2021, 11:53 AM
Time taken	4 mins 16 secs
Grade	**7.00** out of 7.00 (**100**%)

Question **1**
Correct
Mark 1.00 out of 1.00
Flag question

When the thermal boundary of the virtual system is set that the heat cannot be transfered through the given boundary, then it is called:

a.
Propagating

b.
Conductive

c.
Isothermal

d.
Adiabatic

Your answer is correct.

Question **2**
Correct
Mark 1.00 out of 1.00
Flag question

What does the value of R_{thjc} thermal resistance show?

a.
The thermal resistance between the active (dissipating) zone and the inner edge of the top of the package.

b.
The thermal resistance between the active (dissipating) zone and the ambient.

c.
The thermal resistance between the top and the bottom of the case.

d.
The thermal resistance between the active (dissipating) zone and the PCB board.

Your answer is correct.

Question **3**
Correct
Mark 1.00 out of 1.00
Flag question

What is the unit of thermal resistance?

a.
W/K

b.
K·W/s

c.
W·s/K

d.
K/W

Your answer is correct.

Question **4**
Correct
Mark 1.00 out of 1.00
Flag question

What is the unit of thermal conductance?

a.
K/W

b.
K·W/s

c.
W/K

d.
W·s/K

Your answer is correct.

Question **5**
Correct
Mark 1.00 out of 1.00
Flag question

What does the value of R_{thca} thermal resistance show?

a.
The thermal resistance between the active (dissipating) zone and the PCB board.

b.
The thermal resistance between the top of the package and the ambient.

✔

c.
The thermal resistance between the active (dissipating) zone and the inner edge of the top of the package.

d.
The thermal resistance between the active (dissipating) zone and the ambient.

Your answer is correct.

Question **6**
Correct
Mark 1.00 out of 1.00
Flag question

What is the unit of thermal capacitance?

a.
K·W/s

b.
W·s/K

✔

c.
W·m/K

d.
s·K/W

Your answer is correct.

Question **7**
Correct
Mark 1.00 out of 1.00
Flag question

What is the R_thja thermal resistance value of a DIL package with a supply voltage of 3V and with an average current of 0.5A, if there is a 30°C temperature difference between the dissipating region and the outside of the package?

a.
13,33 mK/W

b.
30 W/K

c.
20 K/W

✔

d.
0.05 K/W

Your answer is correct.

Finish review

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