an impurity diffusion isolation region formed between the first photoelectric conversion element and the second photoelectric conversion element, and

a first discrete trench isolation structure; and

a signal processing circuit, wherein

the floating diffusion portion contacts a portion of the first discrete trench isolation structure,

a gate electrode of the first transfer transistor covers a portion of the first discrete trench isolation structure, and

the first discrete trench isolation structure is not in contact with the first photoelectric conversion element.

14. The camera device according to claim **13**, further comprising a second transfer transistor configured to transfer charges generated in the second photoelectric conversion element to the floating diffusion portion.

15. The camera device according to claim **13**, further comprising a reset transistor disposed between the floating diffusion portion and a predetermined voltage.

16. The camera device according to claim **15**, wherein the first discrete trench isolation structure is in contact with the reset transistor.

17. The camera device according to claim **15**, further comprising a selection transistor, wherein a gate electrode of the selection transistor is connected to the floating diffusion portion.

18. The camera device according to claim **13**, wherein the first discrete trench isolation structure is formed by a shallow trench structure.

19. The camera device according to claim **13**, wherein the gate electrode of the first transfer transistor includes polysilicon.

20. The camera device according to claim **13**, wherein the impurity diffusion isolation region is different shape structure from the first discrete trench isolation structure.

21. The camera device according to claim **13**, further comprising a planarized insulating film formed on the first discrete trench isolation structure and the impurity diffusion isolation region.

22. The camera device according to claim **21**, wherein a film thickness of the planarized insulating film is greater than or equal to a film thickness of a gate-insulated film.

23. The camera device according to claim **13**, wherein the first photoelectric conversion element is not directly in contact with the floating diffusion portion.

24. The camera device according to claim **13**, further comprising a second discrete trench isolation structure on an opposite side of the floating diffusion as the first discrete trench isolation structure.

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