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Semiconductor devices –
Part 5-14: Optoelectronic devices – Light emitting diodes – Test method of the surface temperature based on the thermoreflectance method

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CONTENTS

FOREWORD 3
1 Scope 5
2 Normative references 5
3 Terms, definitions and abbreviated terms 5
3.1 Terms and definitions 5
3.2 Abbreviated terms 7
4 Measuring methods 7
4.1 Basic requirements 7
4.1.1 Measuring conditions 7
4.1.2 Measuring instruments and equipment 7
4.2 Purpose 7
4.3 Measurement 8
4.3.1 Measurement setup 8
4.3.2 Measurement principle 9
4.3.3 Measurement sequence 12
5 Test report 13
Annex A (informative) Measurement of the thermoreflectance coefficient of a standard metal film 15
Annex B (informative) Test example 16
Annex C (informative) Junction temperatures measured by different methods 19
Bibliography 21

Figure 1 – Schematic diagram of the TR setup 8
Figure 2 – Schematic illustration of measuring the thermoreflectance coefficient, surface temperature, and junction temperature by the TR effect 10
Figure 3 – Sequence of the measurement of the junction temperature using the TR method 13
Figure A.1 – Experimental result of thermoreflectance coefficient of a standard Au film 15
Figure B.1 – Photograph of a sample prepared for the junction temperature measurements 17
Figure B.2 – Junction temperature measured by the TR method of the sample shown in Figure B.1 17
Figure C.1 – Junction temperature increase with forward current, measured by the methods of forward voltage, thermocouple, and thermoreflectance of the sample shown in Figure B.1 20

Table 1 – Summary of test report 14
Table B.1 – Summary of test report in example 18

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Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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SEMICONDUCTOR DEVICES –

Part 5-14: Optoelectronic devices – Light emitting diodes – Test method of the surface temperature based on the thermoreflectance method

1 Scope

This part of IEC 60747-5 specifies the measuring method of the surface temperature of single LED die or package, based on the thermoreflectance (TR) method. TR is the effect that the reflectance of light changes with the temperature of a substance. This part measures relative change in the reflectance of light from a metal film deposited nearby on the metallurgical pn junction as the relative change in the LED junction temperature. The surface temperature can be approximated as the junction temperature when the thermal resistance effect between the metal surface and the pn junction is negligibly small.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60747-5-6:2021, *Semiconductor devices – Part 5-6: Optoelectronic devices – Light emitting diodes*