RENESAS

Product Advisory (PA)

Subject: Correction to the Renesas HS*-5104A*, IS*-1009EH-Q, HS*-OP470A* Datasheets
Publication Date: 5/19/2021
Effective Date: 5/19/2021

Revision Description:
Initial Release

Description of Change:
There are no changes to the SMDs. This notice is to inform you of datasheet corrections as below;

1. Updates to Die Characterization section, Glassivation.
2. Updates to Die Characterization section, Top Metallization.
3. Updates to Die Characterization section, Substrate.

Corrections are reflected in Appendix A of the notice.

Products Impacted by the change;

Renesas Part Number	Ordering Number	Renesas Part Number	Ordering Number	Renesas Part Number	Ordering Number
HS0-5104AEH-Q	5962R9569002V9A	IS0-1009EH-Q	5962F0052302V9A	IS0-1009EH/SAMPLE	N/A
HS0-OP470AEH-Q	5962R9853302V9A	IS2-1009EH-Q	5962F0052302VXC	HS-OP470ARHEV1Z	N/A
HS1-5104AEH-Q	5962R9569002VCC	ISYE-1009EH-Q	5962F0052302VYC	HS0-OP470AEH/SAMPLE	N/A
HS9-5104AEH-Q	5962R9569002VXC	IS2-1009EH/PROTO	N/A	HS9-OP470AEH/PROTO	N/A
HS9-OP470AEH-Q	5962R9853302VXC	ISYE-1009EH/PROTO	N/A		

Reason for Change:
Change corrects the datasheet to reflect the actual product performance. Details regarding the change are contained within Appendix A, for an updated datasheet please contact your local sales or marketing representative. There is no change to SMD as they were always correct.

Impact on fit, form, function, quality & reliability:
The change will have no impact on the form, fit, function, quality, reliability and environmental compliance of the devices.

Product Identification:
There have been no changes to the product, this is a documentation correction only. There will be no change in the external marking of the packaged products.

Qualification status: Not Applicable, correction only
Sample availability: 5/19/2021
Device material declaration: Available upon request

Questions or requests pertaining to this change notice, including additional data or samples, must be sent to Intersil within 30 days of the publication date.

For additional information regarding this notice, please contact your regional change coordinator (below)

Americas: PCN-US@Renesas.COM	Europe: PCN-EU@Renesas.COM	Japan: PCN-JP@Renesas.COM	Asia Pac: PCN-APAC@Renesas.COM

Appendix A:

Datasheet changes for HS*-5104A*

FROM:

HS-5104ARH, HS-5104AEH FN3025.5

Die Characteristics

DIE DIMENSIONS:

95 mils x 99 mils x 19 mils ±1 mils
(2420μm x 2530μm x 483μm ±25.4μm)

INTERFACE MATERIALS:

Glassivation:

Type: Nitride (SI3N4) over Silox (SIO2, 5% Phos.)
Silox Thickness: 12kÅ ±2kÅ
Nitride Thickness: 3.5kÅ ±1.5kÅ

Top Metallization:

Type: Al, 1% Cu
Thickness: 16kÅ ±2kÅ

Substrate:

Bipolar Dielectric Isolation

Backside Finish:

Silicon

ASSEMBLY RELATED INFORMATION:

Substrate Potential (Powered Up):

Unbiased

ADDITIONAL INFORMATION:

Worst Case Current Density:

$<2.0 \times 10^5$ A/cm^2

Transistor Count:

175

TO:

HS-5104ARH, HS-5104AEH

Die Characteristics

DIE DIMENSIONS:

95 mils x 99 mils x 19 mils ±1 mils
(2420μm x 2530μm x 483μm ±25.4μm)

INTERFACE MATERIALS:

Glassivation:

Type: Silox (SIO2) 1:6:1
Thickness: 8kÅ ±0.8kÅ (1kÅ undopped, 6kÅ dopped, cap 1kÅ undopped)

Top Metalization:

Type: Al/Cu 16kÅ ±2kÅ

Substrate:

HFSTD: Single poly dielectrically isolated complementary bipolar.

Backside Finish:

Silicon

ASSEMBLY RELATED INFORMATION:

Substrate potential:

Insulator

Special assembly instructions:

None

ADDITIONAL INFORMATION:

Worst Case Current Density:

$<2.0 \times 10^5$ A/cm^2

Transistor Count:

175

Datasheet changes for IS*-1009EH-Q

FROM:

IS-1009RH, IS-1009EH

Die Characteristics

DIE DIMENSIONS

1270μm x 1778μm (50 mils x 70 mils)
Thickness: 356μm ±25.4μm (14 mils ±1 mil)

INTERFACE MATERIALS

Glassivation

Type: Nitride (Si_3N_4)
Nitride Thickness: 4.0kÅ ±1.0kÅ

Top Metallization

Type: AlSiCu
Thickness: 16.0kÅ ±2kÅ

Substrate

EBHF, Dielectric Isolation

Backside Finish

Silicon

ASSEMBLY RELATED INFORMATION

Substrate Potential

Unbiased (DI)

ADDITIONAL INFORMATION

Worst Case Current Density

$<1.0 \times 10^5$ A/cm^2

Transistor Count

26

TO:

IS-1009RH, IS-1009EH

Die Characteristics

DIE DIMENSIONS

1270μm x 1778μm (50 mils x 70 mils)
Thickness: 356μm ±25.4μm (14 mils ±1 mil)

INTERFACE MATERIALS

Glassivation

Type: Silox (SiO2) 1:6:1
Thickness: 8kÅ ±0.8kÅ (1kÅ undopped, 6kÅ dopped, cap 1kÅ undopped)

Top Metallization

Type: Al Si Cu
Thickness: 16.0kÅ ±2kÅ

Substrate

EFSTDB: Single-poly dielectrically isolated complementary bipolar

Backside Finish

Silicon

ASSEMBLY RELATED INFORMATION

Substrate Potential

Unbiased (DI)

ADDITIONAL INFORMATION

Worst Case Current Density

<1.0 x 10^5 A/cm^2

Transistor Count

26

Datasheet changes for HS*-OP470A*

FROM:

HS-OP470ARH, HS-OP470AEH

Die Characteristics

DIE DIMENSIONS:

95 mils x 99 mils x 19 mils ±1 mil
(2420μm x 2530μm x 483μm ±25.4μm)

METALLIZATION:

Type: Al, 1% Cu
Thickness: 16kÅ ±2kÅ

SUBSTRATE POTENTIAL (Powered Up):

Unbiased

BACKSIDE FINISH:

Silicon

PASSIVATION:

Type: Nitride (SI3N4) over Silox (SIO2, 5% Phos.)
Silox Thickness: 12kÅ ±2kÅ
Nitride Thickness: 3.5kÅ ±1.5kÅ

WORST CASE CURRENT DENSITY:

<2.0 x 10^5 A/cm^2

TRANSISTOR COUNT:

175

PROCESS:

Bipolar Dielectric Isolation

TO:

HS-OP470ARH, HS-OP470AEH

Die Characteristics

DIE DIMENSIONS:

95 mils x 99 mils x 19 mils ±1 mil
(2420μm x 2530μm x 483μm ±25.4μm)

INTERFACE MATERIALS:

Glassivation:

Type: Silox (SIO2) 1:6:1
Thickness: 8kÅ ±0.8kÅ (1kÅ undopped, 6kÅ dopped, cap 1kÅ undopped)

Top Metallization:

Type: Al/Cu 16kÅ ±2kÅ

Substrate:

Dielectrically Isolated (DI)

Backside Finish:

Silicon

ASSEMBLY RELATED INFORMATION:

Substrate potential:

Unbiased

Special assembly instructions: None

None

ADDITIONAL INFORMATION:

Worst Case Current Density:

<2.0 x 10^5 A/cm^2

Transistor Count:

175