

Initial Product/Process Change Notification Document #: IPCN22481X Issue Date: 28 November 2018

| Title of Change: | Qualification of new Multilayer Ceramic Capacitors (MLCC) parts for Intelligent Power Module (IPM) of STK984-091series products at ON Semiconductor Vietnam (OSV). | | | | |
|--|--|--|--|--|--|
| Proposed First Ship date: | 31 May 2019 | | | | |
| Contact Information: | Contact your local ON Semiconductor Sales Office or Mitsuru.Oyagi@onsemi.com | | | | |
| Samples: | Contact your local ON Semiconductor Sales Office or Tomohiro.Uda@onsemi.com | | | | |
| Type of Notification: | This is an Initial Product/Process Change Notification (IPCN) sent to customers. IPCNs are typically issued 30 days prior to the issuance of the Final Change Notice (FPCN). An IPCN is an advance notification about an upcoming change and contains general information regarding the change details and devices affected. It also contains the preliminary reliability qualification plan. The completed qualification and characterization data will be included in the Final Product/Process Change Notification (FPCN). This IPCN notification will be followed by a Final Product/Process Change Notification (FPCN) at least 90 days prior to implementation of the change. In case of questions, contact <pcn.support@onsemi.com></pcn.support@onsemi.com> | | | | |
| Change Part Identification: | Date Code | | | | |
| Change Category: | Wafer Fab Change Assembly Change | ☐ Test Change | | | |
| Change Sub-Category(s): Manufacturing Site Addition Manufacturing Site Transfe Manufacturing Process Cha | Product specific change | ☐ Datasheet/Product Doc change ☐ Shipping/Packaging/Marking ☐ Other: | | | |
| Sites Affected: | ON Semiconductor Sites: ON Duong Nai Province, Vietnam | External Foundry/Subcon Sites : None | | | |
| Description and Purpose: | | | | | |
| This is to inform customers of the Qualification of new Multilayer Ceramic Capacitors (MLCC) parts for Intelligent Power Module (IPM) of STK984-091series products at ON Semiconductor Vietnam (OSV) due to discontinuance of parts in the current supplier. | | | | | |
| Current Supplier-A (EOL): Murata Manufacturing Co., Ltd. Parts name GRM-Series. Proposed Supplier-B: TDK Corporation. Parts name CGA-Series. | | | | | |
| There are no change in specification such as Capacitance tolerance, Operating temperature range and dimension. | | | | | |

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Qualification Plan:

QV DEVICE NAME STK984-091A-E PACKAGE SIP23/SIP2E 2nd

| Test | Specification | Condition | Interval |
|-------|---------------|---------------------------|----------|
| HTSL | JESD22-A103 | Ta= 150°C | 1000 hrs |
| HTRB | JESD22-A108 | Tj = 150°C | 1000 hrs |
| TC | JESD22-A104 | Ta= -40°C to +125°C | 1000сус |
| AC | JESD22-A102 | 121°C, 100%RH, 15psig | 96hrs |
| H3TRB | JESD22-A101 | 85°C, 85% RH, 80% rated V | 1000 hrs |

Estimated date for qualification completion: 28 February 2019

List of Affected Parts:

| Part Number | Qualification Vehicle | |
|---------------|-----------------------|--|
| STK984-091A-E | | |
| STK984-091B-E | STK984-091A-E | |

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Appendix A: Changed Products

| Product | Customer Part Number | Qualification Vehicle |
|---------------|----------------------|-----------------------|
| STK984-091A-E | | STK984-091A-E |
| STK984-091B-E | | STK984-091A-E |