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|------------------------------------|--|---|
| Title of Change: | Mold compound change due to End of Life of Samsung SDI molding compound – Batch 5 | |
| Proposed First Ship date: | 4 January 2020 | |
| Contact Information: | Contact your local ON Semiconductor Sales Office or < PCN.Support@onsemi.com > | |
| Samples: | <p>Samples should be available after completion of qualification. Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com> Sample requests are to be submitted no later than 30 days from the date of first notification, Initial PCN or Final PCN, for this change.</p> | |
| Type of Notification: | <p>This is an Initial Product/Process Change Notification (IPCN) sent to customers. 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></p> | |
| Change Part Identification: | Product with date code 2001 or newer will be assembled with a new mold compound. | |
| Change Category: | <input type="checkbox"/> Wafer Fab Change <input checked="" type="checkbox"/> Assembly Change <input type="checkbox"/> Test Change <input type="checkbox"/> Other _____ | |
| Change Sub-Category(s): | <input type="checkbox"/> Manufacturing Site Addition <input checked="" type="checkbox"/> Material Change <input type="checkbox"/> Datasheet/Product Doc change <input type="checkbox"/> Manufacturing Site Transfer <input type="checkbox"/> Product specific change <input type="checkbox"/> Shipping/Packaging/Marking <input type="checkbox"/> Manufacturing Process Change <input type="checkbox"/> Other: _____ | |
| Sites Affected: | ON Semiconductor Sites: ON Tarlac City, Philippines ON Suzhou, China | External Foundry/Subcon Sites: ASE Weihai AUK Dalian Ocean Fine Shantou Huashan Electronic Devices SP Semiconductor and Communications Tak Cheong Electronics Shanwei Universal Global Scientific Industrial |

**Description and Purpose:**

ON Semiconductor would like to inform its customers of a change in the mold compound for the devices listed in this IPCN. This change is a result of an end of life notification received for Samsung SDI EMC. The replacement mold compound is still being decided for many packages and will be declared on the Final Product Change Notification, which will be sent out 97 days prior to its implementation.

| | Before Change Description | After Change Description |
|-------------------------------------|--|--------------------------|
| Mold Compound (TO220F-4 Package) | Samsung ST-7100HS | TBD |
| Mold Compound (TO220-2 Package) | Samsung SL7300HFM/SI7200DX2/SG8200DL/SG8300HK | TBD |
| Mold Compound (TO220F-3 Package) | Samsung SL7300HFM/SI7200DX2/SG8200DL/SG8300HK | TBD |
| Mold Compound (TO3P-5 Package) | Samsung SI7200DX2 | TBD |
| Mold Compound (TO3P-3 Package) | Samsung SL7300HXM/SI7200DX2/SG8200DL | TBD |
| Mold Compound (TO264-3 Package) | Samsung SL7300HFM | TBD |
| Mold Compound (TO247-2 Package) | Samsung SG8200DL/SL7300HFM | TBD |
| Mold Compound (TO247-3 Package) | Samsung SG8200DL/SL7300HFM | TBD |
| Mold Compound (TP247-3 Package) | Samsung SG8200DL | TBD |
| Mold Compound (TP247-4 Package) | Samsung SG8200DL/SL7300HFM | TBD |
| Mold Compound (D2PAK-3 Package) | Samsung SG8200DL | Sumitomo EME-G700HF |
| Mold Compound (SPM5 Package) | Samsung SL7300HW | KCC KTMC3100GP3 |
| Mold Compound (SPM3 Package) | Samsung SL7300HW | TBD |

The qualifications will be completed as quickly as possible, but due to the number of qualifications being performed, multiple Final Product Change Notifications (FPCNs) will be released to customers as the various packages/locations are qualified.

There is no product marking change as a result of this change.

**Qualification Plan:**

All Packages will follow the generic plans shown below based on Package type and application:

IC non-auto:

| Test | Specification | Condition | Interval |
|-------|---------------------|---|----------|
| HTOL | JESD22-A108 | Ta= TBD °C, 100 % max rated Vcc | 1008 hrs |
| HTSL | JESD22-A103 | Ta= max Tj stg °C | 1008 hrs |
| TC | JESD22-A104 | Ta= - 65°C to +150°C | 1000 cyc |
| HAST | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96 hrs |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs |
| PC | J-STD-020 JESD-A113 | MSL ____ @ ____ °C (per datasheet as required) | |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | |
| SD | JSTD002 | Ta = 245C, 10 sec | |

Discrete non-auto:

| Test | Specification | Condition | Interval |
|-------|------------------------------|--|---------------------------|
| HTRB | JESD22-A108 | Ta= max Tj°C, 80% max rated V | 1008 hrs |
| HTGB | JESD22-A108 | Ta= max Tj°C, 100% max rated Vgss (tech specific) | 1008 hrs |
| HTSL | JESD22-A103 | Ta= max Tj stg | 1008 hrs |
| IOL | MIL-STD-750 (M1037) AEC-Q101 | Ta=+25°C, delta Tj=100°C On/off = TBD by pkg min | TBD cyc determined by pkg |
| TC | JESD22-A104 | Ta= - 65°C to +150°C | 1000 cyc |
| HAST | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96 hrs |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs |
| PC | J-STD-020 JESD-A113 | MSL ____ @ ____ °C as required by MSL level on datasheet (SMT) | |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | |
| SD | JSTD002 | Ta = 245C, 10 sec | |

Estimated date for qualification completion: 30 August 2019 For first packages with additional qualifications after this date.

**List of Affected Parts:**

Note: Only the standard (off the shelf) part numbers are listed in the parts list. Any custom parts affected by this PCN are shown in the customer specific PCN addendum in the PCN email notification, or on the [PCN Customized Portal](#).

| Part Number | Qualification Vehicle |
|-------------------|-----------------------|
| FDP6030BL | FDP8440 |
| FDP7030BL | FDP8440 |
| FDP8030L | FDP8440 |
| FDP8860 | FDP8440 |
| FDP8870 | FDP8440 |
| FDP8874 | FDP8440 |
| FDP8880 | FDP8440 |
| FDP8896 | FDP8440 |
| FFSH10120A | FFSH40120ADN-F085 |
| FFSH10120ADN-F155 | FFSH40120ADN-F085 |
| FFSH15120A | FFSH40120ADN-F085 |
| FFSH15120ADN-F155 | FFSH40120ADN-F085 |
| FFSH1665A | FFSH40120ADN-F085 |
| FFSH1665ADN-F155 | FFSH40120ADN-F085 |
| FFSH20120A | FFSH40120ADN-F085 |
| FFSH20120ADN-F155 | FFSH40120ADN-F085 |
| FFSH2065A | FFSH40120ADN-F085 |
| FFSH2065ADN-F155 | FFSH40120ADN-F085 |
| FFSH30120A | FFSH40120ADN-F085 |
| FFSH30120ADN-F155 | FFSH40120ADN-F085 |
| FFSH3065A | FFSH40120ADN-F085 |
| FFSH3065ADN-F155 | FFSH40120ADN-F085 |
| FFSH40120A | FFSH40120ADN-F085 |
| FFSH40120ADN-F155 | FFSH40120ADN-F085 |
| FFSH4065A | FFSH40120ADN-F085 |
| FFSH4065ADN-F155 | FFSH40120ADN-F085 |
| FFSH50120A | FFSH40120ADN-F085 |
| FFSH5065A | FFSH40120ADN-F085 |
| FFSP0465A | FFSP20120A |
| FFSP05120A | FFSP20120A |
| FFSP0665A | FFSP20120A |



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|---------------------|------------------|
| FFSP08120A | FFSP20120A |
| FFSP0865A | FFSP20120A |
| FFSP10120A | FFSP20120A |
| FFSP1065A | FFSP20120A |
| FFSP1065A-FCST | FFSP20120A |
| FFSP1265A | FFSP20120A |
| FFSP15120A | FFSP20120A |
| FFSP1665A | FFSP20120A |
| FFSP20120A | FFSP20120A |
| FFSP2065A | FFSP20120A |
| FFSP3065A | FFSP20120A |
| NDP6020P | FQP27P06-SW82127 |
| NTHL080N120SC1-FCST | SVHL080N120SC1 |
| FS7M0880TU | FS7M0880TU |
| FS7M0880YDTU | FS7M0880TU |
| KA1H0165RTU | KA5L0380RYDTU |
| KA1M0565RTU | KA5L0380RYDTU |
| KA1M0565RYDTU | KA5L0380RYDTU |
| KA5H0165RTU | KA5L0380RYDTU |
| KA5H0165RYDTU | KA5L0380RYDTU |
| KA5H0365RTU | KA5L0380RYDTU |
| KA5H0380RTU | KA5L0380RYDTU |
| KA5H0380RYDTU | KA5L0380RYDTU |
| KA5L0380RYDTU | KA5L0380RYDTU |
| KA5L0565RYDTU | KA5L0380RYDTU |
| KA5M0265RYDTU | KA5L0380RYDTU |
| KA5M0365RTU | KA5L0380RYDTU |
| KA5M0365RYDTU | KA5L0380RYDTU |
| KA5M0380RTU | KA5L0380RYDTU |
| KA5M0380RYDTU | KA5L0380RYDTU |
| 2SA2210-1E | 2SA2210-1E |
| 2SA2210-EPN-1E | 2SA2210-1E |
| 2SA2222SG | 2SA2210-1E |
| 2SC6082-1E | 2SD1060S-1E |
| 2SC6082-EPN-1E | 2SD1060S-1E |
| 2SC6144SG | 2SD1060S-1E |



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|----------------------|---------------------------|
| 2SD1060R-1E | 2SD1060S-1E |
| 2SD1060S-1E | 2SD1060S-1E |
| 2SJ652-1E | BMS3004-1E |
| 2SJ661-1E | 2SJ661-1E |
| 2SJ661-DL-1E | BBS3002-TL-1E |
| 2SK3703-1E | NDFP03N150CG |
| 2SK3745LS-1E | NDFP03N150CG |
| 2SK3746-1E | NDUL09N150CG |
| 2SK3747-1E | NDUL09N150CG |
| 2SK4094-1E | 2SK4094-1E |
| 2SK4177-DL-1E | 2SK4177-DL-1E |
| BBL4001-1E | NDFP03N150CG |
| BBS3002-DL-1E | BBS3002-TL-1E |
| BBS3002-TL-1E | BBS3002-TL-1E |
| BFL4026-1E | NDFP03N150CG |
| BMS3003-1E | BMS3004-1E |
| BMS3004-1E | BMS3004-1E |
| NDFP03N150CG | NDFP03N150CG |
| NDFPD1N150CG | NDFP03N150CG |
| NDTL03N150CG | NDTL03N150CG |
| NDUL03N150CG | NDUL09N150CG |
| NDUL09N150CG | NDUL09N150CG |
| SMP3003-DL-1E | BBS3002-TL-1E |
| SMP3003-TL-1E | BBS3002-TL-1E |
| WPH4003-1E | WPH4003-1E |
| FGA15N120ANTDTU-F109 | FQA11N90-F109 |
| FGA15S125P | FQA11N90-F109 |
| FGA180N33ATDTU | FQA11N90-F109 |
| FGA180N33ATTU | FQA11N90-F109 |
| FGA20N120FTDTU | FQA11N90-F109 |
| FGA20S125P-SN00336 | FQA11N90-F109 |
| FGA20S140P | FQA11N90-F109, FGA20S140P |
| FGA25N120ANTDTU | FQA11N90-F109 |
| FGA25N120ANTDTU-F109 | FQA11N90-F109 |
| FGA3060ADF | FQA11N90-F109 |
| FGA30N120FTDTU | FQA11N90-F109 |



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|-------------------|---------------------------------|
| FGA30N60LSDTU | FQA11N90-F109 |
| FGA30N65SMD | TBD |
| FGA30S120P | FQA11N90-F109, FGA20S140P |
| FGA30T65SHD | FQA11N90-F109 |
| FGA4060ADF | FQA11N90-F109 |
| FGA40N65SMD | TBD |
| FGA40T65SHD | FQA11N90-F109 |
| FGA40T65SHDF | FQA11N90-F109 |
| FGA40T65UQDF | FQA11N90-F109 |
| FGA5065ADF | FQA11N90-F109 |
| FGA50N100BNTD2 | FQA11N90-F109 |
| FGA50N100BNTDTU | FQA11N90-F109 |
| FGA50S110P | FQA11N90-F109 |
| FGA50T65SHD | FQA11N90-F109 |
| FGA6065ADF | FQA11N90-F109 |
| FGA60N60UFDTU | FQA11N90-F109 |
| FGA60N65SMD | TBD |
| FGA6530WDF | FQA11N90-F109 |
| FGA6540WDF | FQA11N90-F109 |
| FGA6560WDF | FQA11N90-F109 |
| FGA90N33ATDTU | FQA11N90-F109 |
| FGAF20N60SMD | FGAF40N60UFTU |
| FGAF40N60SMD | FGL40N120ANDTU |
| FGAF40N60UFDTU | FGL40N120ANDTU |
| FGAF40S65AQ | FGAF40N60UFTU |
| FGH12040WD-F155 | FGY160T65SPD-F085 |
| FGH15T120SMD-F155 | FGY160T65SPD-F085 |
| FGH20N60SFDTU | FGY160T65SPD-F085, HGTG27N120BN |
| FGH20N60UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH25N120FTDS | TBD |
| FGH25T120SMD-F155 | FGY160T65SPD-F085 |
| FGH30N60LSDTU | FGY160T65SPD-F085, HGTG27N120BN |
| FGH30S130P | FGY160T65SPD-F085 |
| FGH30S150P | FGY160T65SPD-F085 |
| FGH30T65UPDT-F155 | TBD |
| FGH40N60SFDTU | FGY160T65SPD-F085, HGTG27N120BN |



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|-------------------|---------------------------------|
| FGH40N60SFTU | FGY160T65SPD-F085, HGTG27N120BN |
| FGH40N60SMD | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60SMDF | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60UFTU | FGY160T65SPD-F085 |
| FGH40N65UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T100SMD | FGY160T65SPD-F085 |
| FGH40T100SMD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T120SMD | FGY160T65SPD-F085 |
| FGH40T120SMD-F155 | FGY160T65SPD-F085 |
| FGH40T120SMDL4 | FGY160T65SPD-F085 |
| FGH40T65SHD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65SHDF-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65SH-F155 | FGY160T65SPD-F085 |
| FGH40T65SPD-F155 | FGY160T65SPD-F085 |
| FGH40T65SQD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65UPD | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65UQDF-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T70SHD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH50N6S2D | FGY160T65SPD-F085 |
| FGH50T65SQD-F155 | FGY160T65SPD-F085 |
| FGH50T65UPD | TBD |
| FGH60N60SFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60N60SFTU | FGY160T65SPD-F085 |
| FGH60N60SMD | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60N60UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60T65SHD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60T65SQD-F155 | FGY160T65SPD-F085 |
| FGH75N60UFTU | FGY160T65SPD-F085 |
| FGH75T65SHD-F155 | FGY160T65SPD-F085 |
| FGH75T65SHDT-F155 | FGY160T65SPD-F085 |
| FGH75T65SHDTL4 | FGY160T65SPD-F085 |
| FGH75T65SHDTLN4 | FGY160T65SPD-F085 |
| FGH75T65SQD-F155 | FGY160T65SPD-F085 |
| FGH75T65SQDNL4 | FGY160T65SPD-F085 |
| FGH75T65SQDT-F155 | FGY160T65SPD-F085 |



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| FGH75T65SQDTL4 | FGY160T65SPD-F085 |
| FGH75T65UPD-F155 | FGY160T65SPD-F085 |
| FGH80N60FD2TU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH80N60FDTU | FGY160T65SPD-F085 |
| FGL12040WD | TBD |
| FGL35N120FTDTU | TBD |
| FGL40N120ANDTU | FGL40N120ANDTU |
| FGL40N120ANTU | FGL40N120ANDTU |
| FGL60N100BNTD | FGL40N120ANDTU |
| FGL60N100BNTDTU | FGL40N120ANDTU |
| FGP10N60UNDF | HGTP20N60A4 |
| FGP15N60UNDF | HGTP20N60A4 |
| FGP20N60UFDTU | HGTP20N60A4 |
| FGP5N60LS | HGTP20N60A4 |
| FGPF4533RDTU | HGTP20N60A4 |
| FGPF4536 | FDPF2D3N10C |
| FGPF4565 | FDPF2D3N10C |
| FGPF50N33BTTU | FDPF2D3N10C |
| FGY100T65SCDT | FGY160T65SPD-F085 |
| FGY40T120SMD | FGY160T65SPD-F085 |
| FGY75N60SMD | FGY160T65SPD-F085 |
| HGTG10N120BND | HGTG27N120BN |
| HGTG11N120CND | TBD |
| HGTG12N60A4D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG12N60C3D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG20N60B3D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG27N120BN | HGTG27N120BN |
| HGTG30N60A4D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG30N60B3D | FGY160T65SPD-F085 |
| HGTG30N60C3D | FGY160T65SPD-F085, HGTG27N120BN |
| HGTG5N120BND | HGTG27N120BN |
| HGTG7N60A4D | FGY160T65SPD-F085 |
| HGTP12N60A4D | HGTP20N60A4 |
| HGTP12N60C3D | HGTP20N60A4 |
| HGTP20N60A4 | HGTP20N60A4 |
| HGTP3N60A4 | HGTP20N60A4 |



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| HGTP5N120BND | HGTP20N60A4 |
| HGTP7N60A4 | HGTP20N60A4 |
| HGTP7N60A4-F102 | HGTP20N60A4 |
| SGH10N60RUFDTU | FQA11N90-F109 |
| SGH20N60RUFDTU | FQA11N90-F109 |
| SGH30N60RUFDTU | FQA11N90-F109 |
| SGH40N60RUFDTU | FQA11N90-F109 |
| SGH40N60UFTU | FQA11N90-F109 |
| SGL160N60UFTU | FQA11N90-F109 |
| SGL160N60UFDTU | SGL160N60UFDTU |
| SGL50N60RUFDTU | SGL160N60UFDTU |
| SGP10N60RUFDTU | HGTP20N60A4 |
| SGP23N60UFDTU | HGTP20N60A4 |
| SGP23N60UFTU | HGTP20N60A4 |

Japanese translation of the notification starts here.
通知の日本語訳はここから始まります。

Note: The Japanese version is for reference only. In case of any differences between the English and Japanese version, the English version shall control.

注：日本語版は参照用です。英語版と日本語版の違いがある場合は、英語版が優先されます。



初回製品 / プロセス変更通知

文書番号# : IPCN22647XD

発行日 : 19 March 2019

| | | |
|------------------|--|---|
| 変更件名: | Samsung SDI 製モールド コンパウンド - Batch 5 の生産終了に伴うモールド コンパウンドの変更 | |
| 初回出荷予定日: | 4 January 2020 | |
| 連絡先情報: | 現地のオン・セミコンダクター営業所または <PCN.Support@onsemi.com> にお問い合わせください。 | |
| サンプル: | サンプルは認定完了後に提供が可能となります。 現地のオン・セミコンダクター営業所または <PCN.Samples@onsemi.com> にお問い合わせください。 サンプルは、この変更の初回通知、初回 PCN の日付から 30 日以内に要求してください。 | |
| 通知種別: | これは、お客様宛の初回製品 / プロセス変更通知 (IPCN) です。IPCN は、近日中に実施される変更に関する事前通知であり、変更の詳細および影響を受けるデバイスについての一般情報が記載されます。また、暫定的な信頼性認証計画も記載されます。 最終的な認定データおよび特性データは最終製品 / プロセス変更通知 (FPCN) に含まれます。この IPCN は、変更実施から少なくとも 90 日前に発行される最終製品 / プロセス変更通知 (FPCN) に先だって通知されます。ご不明な点がありましたら、<PCN.Support@onsemi.com> にお問い合わせください。 | |
| 変更部品の識別: | 日付コード 2001 以降の製品は、新しいモールド コンパウンドで組み立てられます | |
| 変更カテゴリ: | <input type="checkbox"/> ウェハファブの変更 <input checked="" type="checkbox"/> アセンブリの変更 <input type="checkbox"/> 試験の変更 <input type="checkbox"/> その他 _____ | |
| 変更サブカテゴリ: | <input type="checkbox"/> 製造拠点の追加 <input checked="" type="checkbox"/> 材料の変更 <input type="checkbox"/> データシート/製品資料の変更 <input type="checkbox"/> 製造拠点の移転 <input type="checkbox"/> 製品仕様の変更 <input type="checkbox"/> 出荷/パッケージング/表記 <input type="checkbox"/> 製造プロセスの変更 <input type="checkbox"/> その他: _____ | |
| 影響を受ける拠点: | オン・セミコンダクター拠点: ON Tarlac City, Philippines ON Suzhou, China | 外部製造工場 / 下請業者拠点: ASE Weihai AUK Dalian Ocean Fine Shantou Huashan Electronic Devices SP Semiconductor and Communications Tak Cheong Electronics Shanwei Universal Global Scientific Industrial |



説明および目的:

オン・セミコンダクターは、本 IPCN に列記されたデバイスに対するモールドコンパウンドの変更をお客様にお知らせいたします。この変更は、Samsung SDI EMC から受けた生産終了の通知によるものです。代替のモールドコンパウンドは、多くのパッケージ用に使用すると決定されているもので、実施の 97 日前までに送付される最終製品変更通知にて公表されます。

| | 変更前の表記 | 変更後の表記 |
|---------------------------------|--|---------------------|
| モールド・コンパウンド (TO220F-4 パッケージ) | Samsung ST-7100HS | TBD |
| モールド・コンパウンド (TO220-2 パッケージ) | Samsung SL7300HFM/SI7200DX2/SG8200DL/SG8300HK | TBD |
| モールド・コンパウンド (TO220F-3 パッケージ) | Samsung SL7300HFM/SI7200DX2/SG8200DL/SG8300HK | TBD |
| モールド・コンパウンド (TO3P-5 パッケージ) | Samsung SI7200DX2 | TBD |
| モールド・コンパウンド (TO3P-3 パッケージ) | Samsung SL7300HXM/SI7200DX2/SG8200DL | TBD |
| モールド・コンパウンド (TO264-3 パッケージ) | Samsung SL7300HFM | TBD |
| モールド・コンパウンド (TO247-2 パッケージ) | Samsung SG8200DL/SL7300HFM | TBD |
| モールド・コンパウンド (TO247-3 パッケージ) | Samsung SG8200DL/SL7300HFM | TBD |
| モールド・コンパウンド (TP247-3 パッケージ) | Samsung SG8200DL | TBD |
| モールド・コンパウンド (TP247-4 パッケージ) | Samsung SG8200DL/SL7300HFM | TBD |
| モールド・コンパウンド (D2PAK-3 パッケージ) | Samsung SG8200DL | Sumitomo EME-G700HF |
| モールド・コンパウンド (SPM5 パッケージ) | Samsung SL7300HW | KCC KTMC3100GP3 |
| モールド・コンパウンド (SPM3 パッケージ) | Samsung SL7300HW | TBD |

認定に関してはできる限り早急に終了する予定ですが、各種パッケージ/場所が認定されることになり、実施される認定が多数になるため、複数の最終製品変更通知 (FPCNs) がお客様に発行されることとなります。

今回の変更に伴う製品表示の変更はありません。



認定計画:

すべてのパッケージは、パッケージタイプおよびアプリケーションに基づき以下に示す一般計画に従います。

IC 非車載:

| テスト | 仕様 | 条件 | 間隔 |
|-------|---------------------|---|----------|
| HTOL | JESD22-A108 | Ta= TBD °C, 100 % max rated Vcc | 1008 hrs |
| HTSL | JESD22-A103 | Ta= max Tj stg °C | 1008 hrs |
| TC | JESD22-A104 | Ta= - 65°C to +150°C | 1000 cyc |
| HAST | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96 hrs |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs |
| PC | J-STD-020 JESD-A113 | MSL _____ @ _____ °C (per datasheet as required) | |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | |
| SD | JSTD002 | Ta = 245C, 10 sec | |

ディスクリート非車載:

| テスト | 仕様 | 条件 | 間隔 |
|-------|------------------------------|--|---------------------------|
| HTRB | JESD22-A108 | Ta= max Tj°C, 80% max rated V | 1008 hrs |
| HTGB | JESD22-A108 | Ta= max Tj°C, 100% max rated Vgss (tech specific) | 1008 hrs |
| HTSL | JESD22-A103 | Ta= max Tj stg | 1008 hrs |
| IOL | MIL-STD-750 (M1037) AEC-Q101 | Ta=+25°C, delta Tj=100°C On/off = TBD by pkg min | TBD cyc determined by pkg |
| TC | JESD22-A104 | Ta= - 65°C to +150°C | 1000 cyc |
| HAST | JESD22-A110 | 130°C, 85% RH, 18.8psig, bias | 96 hrs |
| uHAST | JESD22-A118 | 130°C, 85% RH, 18.8psig, unbiased | 96 hrs |
| PC | J-STD-020 JESD-A113 | MSL _____ @ _____ °C as required by MSL level on datasheet (SMT) | |
| RSH | JESD22- B106 | Ta = 265C, 10 sec | |
| SD | JSTD002 | Ta = 245C, 10 sec | |

認定完了予定日 : 2019 年 8 月 30 日この日付以降の追加認定に基づく初期パッケージに関して。



影響を受ける部品の一覧:

注: 部品一覧には標準部品番号 (既製品) のみが記載されています。本 PCN の影響を受けるカスタム部品番号は、PCN メールで提供される顧客個別の付録、または PCN カスタマイズポータルに記載されています。

| 部品番号 | 認定試験用ピークル |
|-------------------|-------------------|
| FDP6030BL | FDP8440 |
| FDP7030BL | FDP8440 |
| FDP8030L | FDP8440 |
| FDP8860 | FDP8440 |
| FDP8870 | FDP8440 |
| FDP8874 | FDP8440 |
| FDP8880 | FDP8440 |
| FDP8896 | FDP8440 |
| FFSH10120A | FFSH40120ADN-F085 |
| FFSH10120ADN-F155 | FFSH40120ADN-F085 |
| FFSH15120A | FFSH40120ADN-F085 |
| FFSH15120ADN-F155 | FFSH40120ADN-F085 |
| FFSH1665A | FFSH40120ADN-F085 |
| FFSH1665ADN-F155 | FFSH40120ADN-F085 |
| FFSH20120A | FFSH40120ADN-F085 |
| FFSH20120ADN-F155 | FFSH40120ADN-F085 |
| FFSH2065A | FFSH40120ADN-F085 |
| FFSH2065ADN-F155 | FFSH40120ADN-F085 |
| FFSH30120A | FFSH40120ADN-F085 |
| FFSH30120ADN-F155 | FFSH40120ADN-F085 |
| FFSH3065A | FFSH40120ADN-F085 |
| FFSH3065ADN-F155 | FFSH40120ADN-F085 |
| FFSH40120A | FFSH40120ADN-F085 |
| FFSH40120ADN-F155 | FFSH40120ADN-F085 |
| FFSH4065A | FFSH40120ADN-F085 |
| FFSH4065ADN-F155 | FFSH40120ADN-F085 |
| FFSH50120A | FFSH40120ADN-F085 |
| FFSH5065A | FFSH40120ADN-F085 |
| FFSP0465A | FFSP20120A |
| FFSP05120A | FFSP20120A |
| FFSP0665A | FFSP20120A |



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| FFSP08120A | FFSP20120A |
| FFSP0865A | FFSP20120A |
| FFSP10120A | FFSP20120A |
| FFSP1065A | FFSP20120A |
| FFSP1065A-FCST | FFSP20120A |
| FFSP1265A | FFSP20120A |
| FFSP15120A | FFSP20120A |
| FFSP1665A | FFSP20120A |
| FFSP20120A | FFSP20120A |
| FFSP2065A | FFSP20120A |
| FFSP3065A | FFSP20120A |
| NDP6020P | FQP27P06-SW82127 |
| NTHL080N120SC1-FCST | SVHL080N120SC1 |
| FS7M0880TU | FS7M0880TU |
| FS7M0880YDTU | FS7M0880TU |
| KA1H0165RTU | KA5L0380RYDTU |
| KA1M0565RTU | KA5L0380RYDTU |
| KA1M0565RYDTU | KA5L0380RYDTU |
| KA5H0165RTU | KA5L0380RYDTU |
| KA5H0165RYDTU | KA5L0380RYDTU |
| KA5H0365RTU | KA5L0380RYDTU |
| KA5H0380RTU | KA5L0380RYDTU |
| KA5H0380RYDTU | KA5L0380RYDTU |
| KA5L0380RYDTU | KA5L0380RYDTU |
| KA5L0565RYDTU | KA5L0380RYDTU |
| KA5M0265RYDTU | KA5L0380RYDTU |
| KA5M0365RTU | KA5L0380RYDTU |
| KA5M0365RYDTU | KA5L0380RYDTU |
| KA5M0380RTU | KA5L0380RYDTU |
| KA5M0380RYDTU | KA5L0380RYDTU |
| 2SA2210-1E | 2SA2210-1E |
| 2SA2210-EPN-1E | 2SA2210-1E |
| 2SA2222SG | 2SA2210-1E |
| 2SC6082-1E | 2SD1060S-1E |
| 2SC6082-EPN-1E | 2SD1060S-1E |
| 2SC6144SG | 2SD1060S-1E |



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|----------------------|---------------------------|
| 2SD1060R-1E | 2SD1060S-1E |
| 2SD1060S-1E | 2SD1060S-1E |
| 2SJ652-1E | BMS3004-1E |
| 2SJ661-1E | 2SJ661-1E |
| 2SJ661-DL-1E | BBS3002-TL-1E |
| 2SK3703-1E | NDFP03N150CG |
| 2SK3745LS-1E | NDFP03N150CG |
| 2SK3746-1E | NDUL09N150CG |
| 2SK3747-1E | NDUL09N150CG |
| 2SK4094-1E | 2SK4094-1E |
| 2SK4177-DL-1E | 2SK4177-DL-1E |
| BBL4001-1E | NDFP03N150CG |
| BBS3002-DL-1E | BBS3002-TL-1E |
| BBS3002-TL-1E | BBS3002-TL-1E |
| BFL4026-1E | NDFP03N150CG |
| BMS3003-1E | BMS3004-1E |
| BMS3004-1E | BMS3004-1E |
| NDFP03N150CG | NDFP03N150CG |
| NDFPD1N150CG | NDFP03N150CG |
| NDTL03N150CG | NDTL03N150CG |
| NDUL03N150CG | NDUL09N150CG |
| NDUL09N150CG | NDUL09N150CG |
| SMP3003-DL-1E | BBS3002-TL-1E |
| SMP3003-TL-1E | BBS3002-TL-1E |
| WPH4003-1E | WPH4003-1E |
| FGA15N120ANTDTU-F109 | FQA11N90-F109 |
| FGA15S125P | FQA11N90-F109 |
| FGA180N33ATDTU | FQA11N90-F109 |
| FGA180N33ATTU | FQA11N90-F109 |
| FGA20N120FTDTU | FQA11N90-F109 |
| FGA20S125P-SN00336 | FQA11N90-F109 |
| FGA20S140P | FQA11N90-F109, FGA20S140P |
| FGA25N120ANTDTU | FQA11N90-F109 |
| FGA25N120ANTDTU-F109 | FQA11N90-F109 |
| FGA3060ADF | FQA11N90-F109 |
| FGA30N120FTDTU | FQA11N90-F109 |



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|-------------------|---------------------------------|
| FGA30N60LSDTU | FQA11N90-F109 |
| FGA30N65SMD | TBD |
| FGA30S120P | FQA11N90-F109, FGA20S140P |
| FGA30T65SHD | FQA11N90-F109 |
| FGA4060ADF | FQA11N90-F109 |
| FGA40N65SMD | TBD |
| FGA40T65SHD | FQA11N90-F109 |
| FGA40T65SHDF | FQA11N90-F109 |
| FGA40T65UQDF | FQA11N90-F109 |
| FGA5065ADF | FQA11N90-F109 |
| FGA50N100BNTD2 | FQA11N90-F109 |
| FGA50N100BNTDTU | FQA11N90-F109 |
| FGA50S110P | FQA11N90-F109 |
| FGA50T65SHD | FQA11N90-F109 |
| FGA6065ADF | FQA11N90-F109 |
| FGA60N60UFDTU | FQA11N90-F109 |
| FGA60N65SMD | TBD |
| FGA6530WDF | FQA11N90-F109 |
| FGA6540WDF | FQA11N90-F109 |
| FGA6560WDF | FQA11N90-F109 |
| FGA90N33ATDTU | FQA11N90-F109 |
| FGAF20N60SMD | FGAF40N60UFTU |
| FGAF40N60SMD | FGL40N120ANDTU |
| FGAF40N60UFDTU | FGL40N120ANDTU |
| FGAF40S65AQ | FGAF40N60UFTU |
| FGH12040WD-F155 | FGY160T65SPD-F085 |
| FGH15T120SMD-F155 | FGY160T65SPD-F085 |
| FGH20N60SFDTU | FGY160T65SPD-F085, HGTG27N120BN |
| FGH20N60UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH25N120FTDS | TBD |
| FGH25T120SMD-F155 | FGY160T65SPD-F085 |
| FGH30N60LSDTU | FGY160T65SPD-F085, HGTG27N120BN |
| FGH30S130P | FGY160T65SPD-F085 |
| FGH30S150P | FGY160T65SPD-F085 |
| FGH30T65UPDT-F155 | TBD |
| FGH40N60SFDTU | FGY160T65SPD-F085, HGTG27N120BN |



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|-------------------|---------------------------------|
| FGH40N60SFTU | FGY160T65SPD-F085, HGTG27N120BN |
| FGH40N60SMD | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60SMDF | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60UFTU | FGY160T65SPD-F085 |
| FGH40N65UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T100SMD | FGY160T65SPD-F085 |
| FGH40T100SMD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T120SMD | FGY160T65SPD-F085 |
| FGH40T120SMD-F155 | FGY160T65SPD-F085 |
| FGH40T120SMDL4 | FGY160T65SPD-F085 |
| FGH40T65SHD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65SHDF-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65SH-F155 | FGY160T65SPD-F085 |
| FGH40T65SPD-F155 | FGY160T65SPD-F085 |
| FGH40T65SQD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65UPD | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65UQDF-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T70SHD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH50N6S2D | FGY160T65SPD-F085 |
| FGH50T65SQD-F155 | FGY160T65SPD-F085 |
| FGH50T65UPD | TBD |
| FGH60N60SFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60N60SFTU | FGY160T65SPD-F085 |
| FGH60N60SMD | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60N60UFDTU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60T65SHD-F155 | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60T65SQD-F155 | FGY160T65SPD-F085 |
| FGH75N60UFTU | FGY160T65SPD-F085 |
| FGH75T65SHD-F155 | FGY160T65SPD-F085 |
| FGH75T65SHDT-F155 | FGY160T65SPD-F085 |
| FGH75T65SHDTL4 | FGY160T65SPD-F085 |
| FGH75T65SHDTLN4 | FGY160T65SPD-F085 |
| FGH75T65SQD-F155 | FGY160T65SPD-F085 |
| FGH75T65SQDNL4 | FGY160T65SPD-F085 |
| FGH75T65SQDT-F155 | FGY160T65SPD-F085 |



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| FGH75T65SQDTL4 | FGY160T65SPD-F085 |
| FGH75T65UPD-F155 | FGY160T65SPD-F085 |
| FGH80N60FD2TU | FGY160T65SPD-F085, FGH60N60SMD |
| FGH80N60FDTU | FGY160T65SPD-F085 |
| FGL12040WD | TBD |
| FGL35N120FTDTU | TBD |
| FGL40N120ANDTU | FGL40N120ANDTU |
| FGL40N120ANTU | FGL40N120ANDTU |
| FGL60N100BNTD | FGL40N120ANDTU |
| FGL60N100BNTDTU | FGL40N120ANDTU |
| FGP10N60UNDF | HGTP20N60A4 |
| FGP15N60UNDF | HGTP20N60A4 |
| FGP20N60UFDTU | HGTP20N60A4 |
| FGP5N60LS | HGTP20N60A4 |
| FGPF4533RDTU | HGTP20N60A4 |
| FGPF4536 | FDPF2D3N10C |
| FGPF4565 | FDPF2D3N10C |
| FGPF50N33BTTU | FDPF2D3N10C |
| FGY100T65SCDT | FGY160T65SPD-F085 |
| FGY40T120SMD | FGY160T65SPD-F085 |
| FGY75N60SMD | FGY160T65SPD-F085 |
| HGTG10N120BND | HGTG27N120BN |
| HGTG11N120CND | TBD |
| HGTG12N60A4D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG12N60C3D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG20N60B3D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG27N120BN | HGTG27N120BN |
| HGTG30N60A4D | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG30N60B3D | FGY160T65SPD-F085 |
| HGTG30N60C3D | FGY160T65SPD-F085, HGTG27N120BN |
| HGTG5N120BND | HGTG27N120BN |
| HGTG7N60A4D | FGY160T65SPD-F085 |
| HGTP12N60A4D | HGTP20N60A4 |
| HGTP12N60C3D | HGTP20N60A4 |
| HGTP20N60A4 | HGTP20N60A4 |
| HGTP3N60A4 | HGTP20N60A4 |



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| HGTP5N120BND | HGTP20N60A4 |
| HGTP7N60A4 | HGTP20N60A4 |
| HGTP7N60A4-F102 | HGTP20N60A4 |
| SGH10N60RUFDTU | FQA11N90-F109 |
| SGH20N60RUFDTU | FQA11N90-F109 |
| SGH30N60RUFDTU | FQA11N90-F109 |
| SGH40N60RUFDTU | FQA11N90-F109 |
| SGH40N60UFTU | FQA11N90-F109 |
| SGL160N60UFTU | FQA11N90-F109 |
| SGL160N60UFTU | SGL160N60UFTU |
| SGL50N60RUFDTU | SGL160N60UFTU |
| SGP10N60RUFDTU | HGTP20N60A4 |
| SGP23N60UFTU | HGTP20N60A4 |
| SGP23N60UFTU | HGTP20N60A4 |



Appendix A: Changed Products

| Product | Customer Part Number | Qualification Vehicle |
|-------------------|----------------------|-----------------------|
| 2SA2210-1E | | 2SA2210-1E |
| 2SA2210-EPN-1E | | 2SA2210-1E |
| 2SA2222SG | | 2SA2210-1E |
| 2SC6082-1E | | 2SD1060S-1E |
| 2SC6082-EPN-1E | | 2SD1060S-1E |
| 2SC6144SG | | 2SD1060S-1E |
| 2SD1060R-1E | | 2SD1060S-1E |
| 2SD1060S-1E | | 2SD1060S-1E |
| 2SJ652-1E | | BMS3004-1E |
| 2SJ661-1E | | 2SJ661-1E |
| 2SJ661-DL-1E | | BBS3002-TL-1E |
| 2SK3703-1E | | NDFP03N150CG |
| 2SK3745LS-1E | | NDFP03N150CG |
| 2SK3746-1E | | NDUL09N150CG |
| 2SK3747-1E | | NDUL09N150CG |
| 2SK4094-1E | | 2SK4094-1E |
| 2SK4177-DL-1E | | 2SK4177-DL-1E |
| BBL4001-1E | | NDFP03N150CG |
| BBS3002-DL-1E | | BBS3002-TL-1E |
| BBS3002-TL-1E | | BBS3002-TL-1E |
| BFL4026-1E | | NDFP03N150CG |
| BMS3003-1E | | BMS3004-1E |
| BMS3004-1E | | BMS3004-1E |
| FDP6030BL | | FDP8440 |
| FDP7030BL | | FDP8440 |
| FDP8030L | | FDP8440 |
| FDP8860 | | FDP8440 |
| FDP8870 | | FDP8440 |
| FDP8874 | | FDP8440 |
| FDP8880 | | FDP8440 |
| FDP8896 | | FDP8440 |
| FFSH10120A | | FFSH40120ADN-F085 |
| FFSH10120ADN-F155 | | FFSH40120ADN-F085 |
| FFSH15120A | | FFSH40120ADN-F085 |
| FFSH15120ADN-F155 | | FFSH40120ADN-F085 |
| FFSH1665A | | FFSH40120ADN-F085 |
| FFSH1665ADN-F155 | | FFSH40120ADN-F085 |
| FFSH20120A | | FFSH40120ADN-F085 |
| FFSH20120ADN-F155 | | FFSH40120ADN-F085 |
| FFSH2065A | | FFSH40120ADN-F085 |
| FFSH2065ADN-F155 | | FFSH40120ADN-F085 |
| FFSH30120A | | FFSH40120ADN-F085 |
| FFSH30120ADN-F155 | | FFSH40120ADN-F085 |
| FFSH3065A | | FFSH40120ADN-F085 |
| FFSH3065ADN-F155 | | FFSH40120ADN-F085 |
| FFSH40120A | | FFSH40120ADN-F085 |
| FFSH40120ADN-F155 | | FFSH40120ADN-F085 |
| FFSH4065A | | FFSH40120ADN-F085 |
| FFSH4065ADN-F155 | | FFSH40120ADN-F085 |
| FFSH50120A | | FFSH40120ADN-F085 |
| FFSH5065A | | FFSH40120ADN-F085 |
| FFSP05120A | | FFSP20120A |
| FFSP0665A | | FFSP20120A |
| FFSP08120A | | FFSP20120A |
| FFSP0865A | | FFSP20120A |
| FFSP10120A | | FFSP20120A |
| FFSP1065A | | FFSP20120A |
| FFSP1265A | | FFSP20120A |
| FFSP15120A | | FFSP20120A |



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| FFSP1665A | | FFSP20120A |
| FFSP20120A | | FFSP20120A |
| FFSP2065A | | FFSP20120A |
| FFSP3065A | | FFSP20120A |
| FGA15N120ANTDTU-F109 | | FQA11N90-F109 |
| FGA15S125P | | FQA11N90-F109 |
| FGA180N33ATTU | | FQA11N90-F109 |
| FGA20N120FTDTU | | FQA11N90-F109 |
| FGA20S125P-SN00336 | | FQA11N90-F109 |
| FGA20S140P | | FQA11N90-F109, FGA20S140P |
| FGA25N120ANTDTU | | FQA11N90-F109 |
| FGA25N120ANTDTU-F109 | | FQA11N90-F109 |
| FGA3060ADF | | FQA11N90-F109 |
| FGA30N120FTDTU | | FQA11N90-F109 |
| FGA30N60LSDTU | | FQA11N90-F109 |
| FGA30N65SMD | | TBD |
| FGA30S120P | | FQA11N90-F109, FGA20S140P |
| FGA30T65SHD | | FQA11N90-F109 |
| FGA4060ADF | | FQA11N90-F109 |
| FGA40N65SMD | | TBD |
| FGA40T65SHD | | FQA11N90-F109 |
| FGA40T65SHDF | | FQA11N90-F109 |
| FGA40T65UQDF | | FQA11N90-F109 |
| FGA5065ADF | | FQA11N90-F109 |
| FGA50N100BNTD2 | | FQA11N90-F109 |
| FGA50N100BNTDTU | | FQA11N90-F109 |
| FGA50S110P | | FQA11N90-F109 |
| FGA50T65SHD | | FQA11N90-F109 |
| FGA6065ADF | | FQA11N90-F109 |
| FGA60N60UFDTU | | FQA11N90-F109 |
| FGA60N65SMD | | TBD |
| FGA6530WDF | | FQA11N90-F109 |
| FGA6540WDF | | FQA11N90-F109 |
| FGA6560WDF | | FQA11N90-F109 |
| FGA90N33ATDTU | | FQA11N90-F109 |
| FGAF20N60SMD | | FGAF40N60UFTU |
| FGAF40N60SMD | | FGL40N120ANDTU |
| FGAF40N60UFDTU | | FGL40N120ANDTU |
| FGAF40S65AQ | | FGAF40N60UFTU |
| FGH12040WD-F155 | | FGY160T65SPD-F085 |
| FGH15T120SMD-F155 | | FGY160T65SPD-F085 |
| FGH20N60SFDTU | | FGY160T65SPD-F085, HGTG27N120BN |
| FGH20N60UFDTU | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH25N120FTDS | | TBD |
| FGH25T120SMD-F155 | | FGY160T65SPD-F085 |
| FGH30N60LSDTU | | FGY160T65SPD-F085, HGTG27N120BN |
| FGH30S130P | | FGY160T65SPD-F085 |
| FGH30S150P | | FGY160T65SPD-F085 |
| FGH30T65UPDT-F155 | | TBD |
| FGH40N60SFDTU | | FGY160T65SPD-F085, HGTG27N120BN |
| FGH40N60SFTU | | FGY160T65SPD-F085, HGTG27N120BN |
| FGH40N60SMD | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60SMDF | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60UFDTU | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40N60UFTU | | FGY160T65SPD-F085 |
| FGH40N65UFDTU | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T100SMD | | FGY160T65SPD-F085 |
| FGH40T100SMD-F155 | | FGY160T65SPD-F085, FGH60N60SMD |



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|-------------------|--|-----------------------------------|
| FGH40T120SMD | | FGY160T65SPD-F085 |
| FGH40T120SMD-F155 | | FGY160T65SPD-F085 |
| FGH40T120SMDL4 | | FGY160T65SPD-F085 |
| FGH40T65SH-F155 | | FGY160T65SPD-F085 |
| FGH40T65SHD-F155 | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65SHDF-F155 | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65SPD-F155 | | FGY160T65SPD-F085 |
| FGH40T65SQD-F155 | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65UPD | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T65UQDF-F155 | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH40T70SHD-F155 | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH50N6S2D | | FGY160T65SPD-F085 |
| FGH50T65SQD-F155 | | FGY160T65SPD-F085 |
| FGH50T65UPD | | TBD |
| FGH60N60SFDTU | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60N60SFTU | | FGY160T65SPD-F085 |
| FGH60N60SMD | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60N60UFDTU | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60T65SHD-F155 | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH60T65SQD-F155 | | FGY160T65SPD-F085 |
| FGH75N60UFTU | | FGY160T65SPD-F085 |
| FGH75T65SHD-F155 | | FGY160T65SPD-F085 |
| FGH75T65SHDT-F155 | | FGY160T65SPD-F085 |
| FGH75T65SHDTL4 | | FGY160T65SPD-F085 |
| FGH75T65SHDTLN4 | | FGY160T65SPD-F085 |
| FGH75T65SQD-F155 | | FGY160T65SPD-F085 |
| FGH75T65SQDNL4 | | FGY160T65SPD-F085 |
| FGH75T65SQDT-F155 | | FGY160T65SPD-F085 |
| FGH75T65SQDTL4 | | FGY160T65SPD-F085 |
| FGH75T65UPD-F155 | | FGY160T65SPD-F085 |
| FGH80N60FD2TU | | FGY160T65SPD-F085, FGH60N60SMD |
| FGH80N60FDTU | | FGY160T65SPD-F085 |
| FGL12040WD | | TBD |
| FGL35N120FTDTU | | TBD |
| FGL40N120ANDTU | | FGL40N120ANDTU |
| FGL40N120ANTU | | FGL40N120ANDTU |
| FGL60N100BNTD | | FGL40N120ANDTU |
| FGL60N100BNTDTU | | FGL40N120ANDTU |
| FGP10N60UNDF | | HGTP20N60A4 |
| FGP15N60UNDF | | HGTP20N60A4 |
| FGP20N60UFDTU | | HGTP20N60A4 |
| FGP5N60LS | | HGTP20N60A4 |
| FGPF4565 | | FDPF2D3N10C |
| FGY100T65SCDT | | FGY160T65SPD-F085 |
| FGY40T120SMD | | FGY160T65SPD-F085 |
| FGY75N60SMD | | FGY160T65SPD-F085 |
| HGTG10N120BND | | HGTG27N120BN |
| HGTG11N120CND | | TBD |
| HGTG12N60A4D | | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG12N60C3D | | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG20N60B3D | | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG27N120BN | | HGTG27N120BN |
| HGTG30N60A4D | | FGY160T65SPD-F085, FGH60N60SMD |
| HGTG30N60B3D | | FGY160T65SPD-F085 |
| | | FGY160T65SPD-F085, |



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| HGTG30N60C3D | | HGTG27N120BN |
| HGTG5N120BND | | HGTG27N120BN |
| HGTG7N60A4D | | FGY160T65SPD-F085 |
| HGTP12N60A4D | | HGTP20N60A4 |
| HGTP12N60C3D | | HGTP20N60A4 |
| HGTP20N60A4 | | HGTP20N60A4 |
| HGTP3N60A4 | | HGTP20N60A4 |
| HGTP5N120BND | | HGTP20N60A4 |
| HGTP7N60A4 | | HGTP20N60A4 |
| HGTP7N60A4-F102 | | HGTP20N60A4 |
| KA1H0165RTU | | KA5L0380RYDTU |
| KA1M0565RTU | | KA5L0380RYDTU |
| KA1M0565RYDTU | | KA5L0380RYDTU |
| KA5H0165RTU | | KA5L0380RYDTU |
| KA5H0165RYDTU | | KA5L0380RYDTU |
| KA5H0365RTU | | KA5L0380RYDTU |
| KA5H0380RTU | | KA5L0380RYDTU |
| KA5H0380RYDTU | | KA5L0380RYDTU |
| KA5L0380RYDTU | | KA5L0380RYDTU |
| KA5L0565RYDTU | | KA5L0380RYDTU |
| KA5M0265RYDTU | | KA5L0380RYDTU |
| KA5M0365RTU | | KA5L0380RYDTU |
| KA5M0365RYDTU | | KA5L0380RYDTU |
| KA5M0380RTU | | KA5L0380RYDTU |
| KA5M0380RYDTU | | KA5L0380RYDTU |
| NDFP03N150CG | | NDFP03N150CG |
| NDFPD1N150CG | | NDFP03N150CG |
| NDP6020P | | FQP27P06-SW82127 |
| NDTL03N150CG | | NDTL03N150CG |
| NDUL03N150CG | | NDUL09N150CG |
| NDUL09N150CG | | NDUL09N150CG |
| SGH10N60RUFDTU | | FQA11N90-F109 |
| SGH20N60RUFDTU | | FQA11N90-F109 |
| SGH30N60RUFDTU | | FQA11N90-F109 |
| SGH40N60RUFDTU | | FQA11N90-F109 |
| SGH40N60UFTU | | FQA11N90-F109 |
| SGL160N60UFDU | | SGL160N60UFDU |
| SGL50N60RUFDTU | | SGL160N60UFDU |
| SGP10N60RUFDTU | | HGTP20N60A4 |
| SGP23N60RUFDTU | | HGTP20N60A4 |
| SGP23N60UFTU | | HGTP20N60A4 |
| SMP3003-DL-1E | | BBS3002-TL-1E |
| SMP3003-TL-1E | | BBS3002-TL-1E |
| WPH4003-1E | | WPH4003-1E |