



Title of Change:	Mold compound change due to End of Life of Samsung SDI molding compound – Batch 7	
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.</p> <p>Contact your local ON Semiconductor Sales Office or <PCN.Samples@onsemi.com></p> <p>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.</p> <p>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 Dong Nai Province, Vietnam ON Seremban, Malaysia	External Foundry/Subcon Sites: TFME Shantou Huashan Electronic Devices SP Semiconductor and Communications

**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
MBR745G	MBR60L45CTG
MBRB3045CT-1G	NTSB40120CT-1G
MBRB30H30CT-1G	NTSB40120CT-1G
MBRB30H60CT-1G	NTSB40120CT-1G
MBRB41H100CT-1G	NTSB40120CT-1G
MBRF10H150CTG	MBRF20200CTG
MBRF10L60CTG	MBRF20200CTG
MBRF20100CTG	MBRF20200CTG
MBRF20200CTG	MBRF20200CTG
MBRF2045CTG	MBRF20200CTG
MBRF2060CTG	MBRF20200CTG
MBRF20H150CTG	MBRF20200CTG
MBRF20L45CTG	MBRF20200CTG
MBRF20L60CTG	MBRF20200CTG
MBRF2545CTG	MBRF20200CTG
MBRF30H100CTG	MBRF20200CTG
MBRF30L45CTG	MBRF20200CTG
MBRF30L60CTG	MBRF20200CTG
MBRF40250TG	MBRF20200CTG
MSR1560G	MUR8100EG
MSR860G	MUR8100EG
MUR1510G	MUR8100EG
MUR1515G	MUR8100EG
MUR1520G	MUR8100EG
MUR1540G	MUR8100EG
MUR1560G	MUR8100EG
MUR1610CTG	MUR8100EG
MUR1615CTG	MUR8100EG
MUR1620CTG	MUR8100EG
MUR1620CTRG	MUR8100EG
MUR1660CTG	MUR8100EG
MUR2020RG	MUR8100EG
MUR550PFG	MUR8100EG



Initial Product/Process Change Notification

Document # : IPCN22647XF

Issue Date: 20 March 2019

MUR620CTG	MUR8100EG
MUR805G	MUR8100EG
MUR8100EG	MUR8100EG
MUR810G	MUR8100EG
MUR815G	MUR8100EG
MUR820G	MUR8100EG
MUR840G	MUR8100EG
MUR860G	MUR8100EG
MUR880EG	MUR8100EG
MURF1620CTG	MURF1660CTG
MURF1660CTG	MURF1660CTG
MURH840CTG	MUR8100EG
MURHF860CTG	MURF1660CTG
NRTST40H100CTG	MBR60L45CTG
NTSB20100CT-1G	NTSB40120CT-1G
NTSB20120CT-1G	NTSB40120CT-1G
NTSB20U100CT-1G	NTSB40120CT-1G
NTSB30100CT-1G	NTSB40120CT-1G
NTSB30100S-1G	NTSB40120CT-1G
NTSB30120CT-1G	NTSB40120CT-1G
NTSB30U100CT-1G	NTSB40120CT-1G
NTSB40100CT-1G	NTSB40120CT-1G
NTSB40120CT-1G	NTSB40120CT-1G
NTSB60100CT-1G	NTSB60100CT-1G
NTSJ20100CTG	NTSJ40120CTG
NTSJ20120CTG	NTSJ40120CTG
NTSJ2080CTG	NTSJ40120CTG
NTSJ20U100CTG	NTSJ40120CTG
NTSJ30100CTG	NTSJ40120CTG
NTSJ30120CTG	NTSJ40120CTG
NTSJ3080CTG	NTSJ40120CTG
NTSJ30U100CTG	NTSJ40120CTG
NTSJ30U80CTG	NTSJ40120CTG
NTSJ40100CTG	NTSJ40120CTG
NTSJ40120CTG	NTSJ40120CTG
NTSJ60100CTG	NTSJ40120CTG
NTST20100CTG	MBR60L45CTG
NTST20120CTG	MBR60L45CTG



NTST20U100CTG	MBR60L45CTG
NTST30100CTG	MBR60L45CTG
NTST30100SG	MBR60L45CTG
NTST30120CTG	MBR60L45CTG
NTST30U100CTG	MBR60L45CTG
NTST40100CTG	MBR60L45CTG
NTST40120CTG	MBR60L45CTG
NTST40H120CTG	NTST40H120CTG
NTST40H120ECTG	MBR60L45CTG
NTST60100CTG	MBR60L45CTG
FGH40T120SQDNL4	FGY75T120SQDN
FGY60T120SQDN	FGY75T120SQDN
FGY75T120SQDN	FGY75T120SQDN
NGTB10N60FG	NGTB50N120FL2WAG
NGTB15N60R2FG	NGTB50N120FL2WAG
NGTB15N60S1EG	NGTB15N60S1EG
NGTB20N60L2TF1G	NGTB50N120FL2WAG
NGTB30N60L2WG	NGTB50N120FL2WAG
NGTB40N120FL2WAG	NGTB50N120FL2WAG
NGTB50N65FL2WAG	NGTB50N120FL2WAG
NGTG12N60TF1G	NGTB50N120FL2WAG
NGTG15N60S1EG	NGTB15N60S1EG
NGTG20N60L2TF1G	NGTB50N120FL2WAG
TIG056BF-1E	NGTB50N120FL2WAG
FCBS0550	FSBS15CH60F
FSB50250US	FSB50550US
FSB50450S	FSB50550US
FSB50450US	FSB50550US
FSB50550US	FSB50550US
FSB50825US	FSB50550US
FSB52006S	FSB50550US
FSBS10CH60L-F166	FSBS15CH60F
FSBS15CH60-F166	FSBS15CH60F
FSBS15CH60L-F166	FSBS15CH60F
NGTB50N120FL2WAG	NGTB50N120FL2WAG

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。



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 KTCM3100GP3
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になります。

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
MBR745G	MBR60L45CTG
MBRB3045CT-1G	NTSB40120CT-1G
MBRB30H30CT-1G	NTSB40120CT-1G
MBRB30H60CT-1G	NTSB40120CT-1G
MBRB41H100CT-1G	NTSB40120CT-1G
MBRF10H150CTG	MBRF20200CTG
MBRF10L60CTG	MBRF20200CTG
MBRF20100CTG	MBRF20200CTG
MBRF20200CTG	MBRF20200CTG
MBRF2045CTG	MBRF20200CTG
MBRF2060CTG	MBRF20200CTG
MBRF20H150CTG	MBRF20200CTG
MBRF20L45CTG	MBRF20200CTG
MBRF20L60CTG	MBRF20200CTG
MBRF2545CTG	MBRF20200CTG
MBRF30H100CTG	MBRF20200CTG
MBRF30L45CTG	MBRF20200CTG
MBRF30L60CTG	MBRF20200CTG
MBRF40250TG	MBRF20200CTG
MSR1560G	MUR8100EG
MSR860G	MUR8100EG
MUR1510G	MUR8100EG
MUR1515G	MUR8100EG
MUR1520G	MUR8100EG
MUR1540G	MUR8100EG
MUR1560G	MUR8100EG
MUR1610CTG	MUR8100EG
MUR1615CTG	MUR8100EG
MUR1620CTG	MUR8100EG
MUR1620CTRG	MUR8100EG
MUR1660CTG	MUR8100EG
MUR2020RG	MUR8100EG
MUR550PFG	MUR8100EG



MUR620CTG	MUR8100EG
MUR805G	MUR8100EG
MUR8100EG	MUR8100EG
MUR810G	MUR8100EG
MUR815G	MUR8100EG
MUR820G	MUR8100EG
MUR840G	MUR8100EG
MUR860G	MUR8100EG
MUR880EG	MUR8100EG
MURF1620CTG	MURF1660CTG
MURF1660CTG	MURF1660CTG
MURH840CTG	MUR8100EG
MURHF860CTG	MURF1660CTG
NRTST40H100CTG	MBR60L45CTG
NTSB20100CT-1G	NTSB40120CT-1G
NTSB20120CT-1G	NTSB40120CT-1G
NTSB20U100CT-1G	NTSB40120CT-1G
NTSB30100CT-1G	NTSB40120CT-1G
NTSB30100S-1G	NTSB40120CT-1G
NTSB30120CT-1G	NTSB40120CT-1G
NTSB30U100CT-1G	NTSB40120CT-1G
NTSB40100CT-1G	NTSB40120CT-1G
NTSB40120CT-1G	NTSB40120CT-1G
NTSB60100CT-1G	NTSB60100CT-1G
NTSJ20100CTG	NTSJ40120CTG
NTSJ20120CTG	NTSJ40120CTG
NTSJ2080CTG	NTSJ40120CTG
NTSJ20U100CTG	NTSJ40120CTG
NTSJ30100CTG	NTSJ40120CTG
NTSJ30120CTG	NTSJ40120CTG
NTSJ3080CTG	NTSJ40120CTG
NTSJ30U100CTG	NTSJ40120CTG
NTSJ30U80CTG	NTSJ40120CTG
NTSJ40100CTG	NTSJ40120CTG
NTSJ40120CTG	NTSJ40120CTG
NTSJ60100CTG	NTSJ40120CTG
NTST20100CTG	MBR60L45CTG
NTST20120CTG	MBR60L45CTG



NTST20U100CTG	MBR60L45CTG
NTST30100CTG	MBR60L45CTG
NTST30100SG	MBR60L45CTG
NTST30120CTG	MBR60L45CTG
NTST30U100CTG	MBR60L45CTG
NTST40100CTG	MBR60L45CTG
NTST40120CTG	MBR60L45CTG
NTST40H120CTG	NTST40H120CTG
NTST40H120ECTG	MBR60L45CTG
NTST60100CTG	MBR60L45CTG
FGH40T120SQDNL4	FGY75T120SQDN
FGY60T120SQDN	FGY75T120SQDN
FGY75T120SQDN	FGY75T120SQDN
NGTB10N60FG	NGTB50N120FL2WAG
NGTB15N60R2FG	NGTB50N120FL2WAG
NGTB15N60S1EG	NGTB15N60S1EG
NGTB20N60L2TF1G	NGTB50N120FL2WAG
NGTB30N60L2WG	NGTB50N120FL2WAG
NGTB40N120FL2WAG	NGTB50N120FL2WAG
NGTB50N65FL2WAG	NGTB50N120FL2WAG
NGTG12N60TF1G	NGTB50N120FL2WAG
NGTG15N60S1EG	NGTB15N60S1EG
NGTG20N60L2TF1G	NGTB50N120FL2WAG
TIG056BF-1E	NGTB50N120FL2WAG
FCBS0550	FSBS15CH60F
FSB50250US	FSB50550US
FSB50450S	FSB50550US
FSB50450US	FSB50550US
FSB50550US	FSB50550US
FSB50825US	FSB50550US
FSB52006S	FSB50550US
FSBS10CH60L-F166	FSBS15CH60F
FSBS15CH60-F166	FSBS15CH60F
FSBS15CH60L-F166	FSBS15CH60F
NGTB50N120FL2WAG	NGTB50N120FL2WAG



Appendix A: Changed Products

Product	Customer Part Number	Qualification Vehicle
FCBS0550		FSBS15CH60F
FGH40T120SQDNL4		FGY75T120SQDN
FGY60T120SQDN		FGY75T120SQDN
FGY75T120SQDN		FGY75T120SQDN
FSB50250US		FSB50550US
FSB50450S		FSB50550US
FSB50450US		FSB50550US
FSB50550US		FSB50550US
FSB50825US		FSB50550US
FSB52006S		FSB50550US
MBR745G		MBR60L45CTG
MBRB3045CT-1G		NTSB40120CT-1G
MBRB30H30CT-1G		NTSB40120CT-1G
MBRB30H60CT-1G		NTSB40120CT-1G
MBRB41H100CT-1G		NTSB40120CT-1G
MBRF10H150CTG		MBRF20200CTG
MBRF10L60CTG		MBRF20200CTG
MBRF20100CTG		MBRF20200CTG
MBRF20200CTG		MBRF20200CTG
MBRF2045CTG		MBRF20200CTG
MBRF2060CTG		MBRF20200CTG
MBRF20H150CTG		MBRF20200CTG
MBRF20L45CTG		MBRF20200CTG
MBRF20L60CTG		MBRF20200CTG
MBRF2545CTG		MBRF20200CTG
MBRF30H100CTG		MBRF20200CTG
MBRF30L45CTG		MBRF20200CTG
MBRF30L60CTG		MBRF20200CTG
MBRF40250TG		MBRF20200CTG
MSR1560G		MUR8100EG
MSR860G		MUR8100EG
MUR1510G		MUR8100EG
MUR1515G		MUR8100EG
MUR1520G		MUR8100EG
MUR1540G		MUR8100EG
MUR1560G		MUR8100EG
MUR1610CTG		MUR8100EG
MUR1615CTG		MUR8100EG
MUR1620CTG		MUR8100EG
MUR1620CTRG		MUR8100EG
MUR1660CTG		MUR8100EG
MUR2020RG		MUR8100EG
MUR550PFG		MUR8100EG
MUR620CTG		MUR8100EG
MUR805G		MUR8100EG
MUR8100EG		MUR8100EG
MUR810G		MUR8100EG
MUR815G		MUR8100EG
MUR820G		MUR8100EG
MUR840G		MUR8100EG
MUR860G		MUR8100EG
MUR880EG		MUR8100EG
MURF1620CTG		MURF1660CTG
MURF1660CTG		MURF1660CTG
MURH840CTG		MUR8100EG
MURHF860CTG		MURF1660CTG
NGTB10N60FG		NGTB50N120FL2WAG
NGTB15N60R2FG		NGTB50N120FL2WAG
NGTB15N60S1EG		NGTB15N60S1EG



NGTB20N60L2TF1G		NGTB50N120FL2WAG
NGTB30N60L2WG		NGTB50N120FL2WAG
NGTB40N120FL2WAG		NGTB50N120FL2WAG
NGTB50N120FL2WAG		NGTB50N120FL2WAG
NGTB50N65FL2WAG		NGTB50N120FL2WAG
NGTG12N60TF1G		NGTB50N120FL2WAG
NGTG15N60S1EG		NGTB15N60S1EG
NGTG20N60L2TF1G		NGTB50N120FL2WAG
NRTST40H100CTG		MBR60L45CTG
NTSB20100CT-1G		NTSB40120CT-1G
NTSB20120CT-1G		NTSB40120CT-1G
NTSB20U100CT-1G		NTSB40120CT-1G
NTSB30100CT-1G		NTSB40120CT-1G
NTSB30100S-1G		NTSB40120CT-1G
NTSB30120CT-1G		NTSB40120CT-1G
NTSB30U100CT-1G		NTSB40120CT-1G
NTSB40100CT-1G		NTSB40120CT-1G
NTSB40120CT-1G		NTSB40120CT-1G
NTSJ20100CTG		NTSJ40120CTG
NTSJ20120CTG		NTSJ40120CTG
NTSJ2080CTG		NTSJ40120CTG
NTSJ20U100CTG		NTSJ40120CTG
NTSJ30100CTG		NTSJ40120CTG
NTSJ30120CTG		NTSJ40120CTG
NTSJ3080CTG		NTSJ40120CTG
NTSJ30U100CTG		NTSJ40120CTG
NTSJ30U80CTG		NTSJ40120CTG
NTSJ40100CTG		NTSJ40120CTG
NTSJ40120CTG		NTSJ40120CTG
NTST20100CTG		MBR60L45CTG
NTST20120CTG		MBR60L45CTG
NTST20U100CTG		MBR60L45CTG
NTST30100CTG		MBR60L45CTG
NTST30100SG		MBR60L45CTG
NTST30120CTG		MBR60L45CTG
NTST30U100CTG		MBR60L45CTG
NTST40100CTG		MBR60L45CTG
NTST40120CTG		MBR60L45CTG
NTST40H120CTG		NTST40H120CTG
NTST40H120ECTG		MBR60L45CTG
NTST60100CTG		MBR60L45CTG
TIG056BF-1E		NGTB50N120FL2WAG