



Initial Product/Process Change Notification

Document #: IPCN23483XE

Issue Date: 29 Jun 2022

Title of Change:	Good-Ark Assembly/Test Site Qualification for Zener SMA, SMB package and bare copper clip Qualification for Alloy Zener.				
Proposed First Ship date:	01 Sep 2023 or earlier if approved by customer				
Contact Information:	Contact your local onsemi Sales Office or TP.Phung@onsemi.com				
PCN Samples Contact:	Contact your local onsemi Sales Office. 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. Samples delivery timing will be subject to request date, sample quantity and special customer packing/label requirements.				
Type of Notification:	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 >				
Marking of Parts/ Traceability of Change:	Products from Good-ark will be marked with site code "g" prior to date code				
Change Category:	Test Change, Assembly Change				
Change Sub-Category(s):	Material Change, Manufacturing Site Addition				
Sites Affected:					
onsemi Sites			External Foundry/Subcon Sites		
onsemi Seremban, Malaysia			Good-Ark, China		
onsemi Vietnam					
Description and Purpose:					
This Initial Product Change Notification (IPCN) is to announce the plan to perform Good-Ark Assembly/Test Site Qualification for Zener SMA, SMB package as alternative source and bare copper clip Qualification for Alloy Zener.					
The products in SMA, SMB packages are currently being assembled and tested at onsemi Vietnam and onsemi Seremban, Malaysia.					
	From		To		
Assembly/Test Site	onsemi Vietnam	onsemi Seremban, Malaysia	onsemi Vietnam	onsemi Seremban, Malaysia	Good-Ark China
Clip	Bare copper clip Ni plated copper clip	Bare copper clip Ni plated copper clip	Bare copper clip	No change	Bare copper clip
LeadFrame	Copper leadframe thickness:10mils	Copper leadframe thickness:10mils	No change	No change	Copper leadframe thickness:8mils
Die Attach	SN5AG2.5PB92.5 Indium SMQ75	SN5AG2.5PB92.5 Indium SMQ75	No change	No change	SN5AG2.5PB92.5 Indium 9.15
Mold Compound	MC NITTO GE-200HH	MC NITTO GE-200HH	No change	No change	HYSOL GR530



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Assembly Plant Code Marking	From	To
SMA	VN (onsemi Vietnam) R (onsemi Seremban, Malaysia)	VN (onsemi Vietnam) R (onsemi Seremban, Malaysia) g (Good-Ark China)
SMB	V (onsemi Vietnam) R (onsemi Seremban, Malaysia)	V (onsemi Vietnam) R (onsemi Seremban, Malaysia) g (Good-Ark China)

Reliability Data Summary:

QV DEVICE NAME: SZ1SMA5945BT3G

RMS: 84080, 85379

PACKAGE: SMA

Test	Specification	Condition	Interval
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Ta=150°C, Iz max, Ta = Tj	1008 hrs
HTSL	JESD22-A103	Ta=150°C	1008 hrs
LTSL	JESD22-A119	Ta=-40°C	168 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C, mounted on board	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, reverse bias	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: SZ1SMB5924BT3G

RMS: 84079, 85378

PACKAGE: SMB

Test	Specification	Condition	Interval
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Ta=150°C, Iz max, Ta = Tj	1008 hrs
HTSL	JESD22-A103	Ta=150°C	1008 hrs
LTSL	JESD22-A119	Ta=-40°C	168 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C, mounted on board	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, reverse bias	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	



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QV DEVICE NAME: SZ1SMA5924BT3G

RMS: 83412, 85377

PACKAGE: SMA

Test	Specification	Condition	Interval
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Ta=150°C, Iz max, Ta = Tj	1008 hrs
HTSL	JESD22-A103	Ta=150°C	1008 hrs
LTSL	JESD22-A119	Ta=-40°C	168 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C, mounted on board	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, reverse bias	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

QV DEVICE NAME: SZ1SMB5956BT3G

RMS: 84082, 85380

PACKAGE: SMB

Test	Specification	Condition	Interval
SSOP	AEC-Q101, Mil-Std-750 M1038 Cond B	Ta=150°C, Iz max, Ta = Tj	1008 hrs
HTSL	JESD22-A103	Ta=150°C	1008 hrs
LTSL	JESD22-A119	Ta=-40°C	168 hrs
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta=+25°C, delta Tj=100°C On/off = 2 min	30000 cyc
TC	JESD22-A104	Ta= -55°C to +150°C, mounted on board	1000 cyc
H3TRB	JESD22-A101	85°C, 85% RH, reverse bias	1008 hrs
uHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs
PC	J-STD-020 JESD-A113	MSL 1 @ 260°C	
RSH	JESD22- B106	Ta = 265C, 10 sec	
SD	JSTD002	Ta = 245C, 5 sec	

Electrical Characteristic Summary:

Electrical characteristic will be updated after qualification completion.



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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
1SMA5927BT3G	SZ1SMA5945BT3G
1SMA5928BT3G	SZ1SMA5945BT3G
1SMA5929BT3G	SZ1SMA5945BT3G
1SMA5930BT3G	SZ1SMA5945BT3G
1SMA5931BT3G	SZ1SMA5945BT3G
1SMA5932BT3G	SZ1SMA5945BT3G
1SMA5933BT3G	SZ1SMA5945BT3G
1SMA5934BT3G	SZ1SMA5945BT3G
1SMA5935BT3G	SZ1SMA5945BT3G
1SMA5936BT3G	SZ1SMA5945BT3G
1SMA5937BT3G	SZ1SMA5945BT3G
1SMA5938BT3G	SZ1SMA5945BT3G
1SMA5939BT3G	SZ1SMA5945BT3G
1SMA5940BT3G	SZ1SMA5945BT3G
1SMA5941BT3G	SZ1SMA5945BT3G
1SMA5942BT3G	SZ1SMA5945BT3G
1SMA5943BT3G	SZ1SMA5945BT3G
1SMA5945BT3G	SZ1SMA5945BT3G
BZG03C15G	SZ1SMA5945BT3G
1SMB5913BT3G	SZ1SMB5924BT3G
1SMB5914BT3G	SZ1SMB5924BT3G
1SMB5915BT3G	SZ1SMB5924BT3G
1SMB5916BT3G	SZ1SMB5924BT3G
1SMB5917BT3G	SZ1SMB5924BT3G
1SMB5918BT3G	SZ1SMB5924BT3G
1SMB5919BT3G	SZ1SMB5924BT3G
1SMB5920BT3G	SZ1SMB5924BT3G
1SMB5921BT3G	SZ1SMB5924BT3G
1SMB5922BT3G	SZ1SMB5924BT3G



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1SMB5923BT3G	SZ1SMB5924BT3G
1SMB5924BT3G	SZ1SMB5924BT3G
1SMB5925BT3G	SZ1SMB5956BT3G
1SMB5926BT3G	SZ1SMB5956BT3G
1SMB5927BT3G	SZ1SMB5956BT3G
1SMB5928BT3G	SZ1SMB5956BT3G
1SMB5929BT3G	SZ1SMB5956BT3G
1SMB5930BT3G	SZ1SMB5956BT3G
1SMB5931BT3G	SZ1SMB5956BT3G
1SMB5932BT3G	SZ1SMB5956BT3G
1SMB5933BT3G	SZ1SMB5956BT3G
1SMB5934BT3G	SZ1SMB5956BT3G
1SMB5935BT3G	SZ1SMB5956BT3G
1SMB5936BT3G	SZ1SMB5956BT3G
1SMB5937BT3G	SZ1SMB5956BT3G
1SMB5938BT3G	SZ1SMB5956BT3G
1SMB5939BT3G	SZ1SMB5956BT3G
1SMB5940BT3G	SZ1SMB5956BT3G
1SMB5941BT3G	SZ1SMB5956BT3G
1SMB5942BT3G	SZ1SMB5956BT3G
1SMB5943BT3G	SZ1SMB5956BT3G
1SMB5944BT3G	SZ1SMB5956BT3G
1SMB5945BT3G	SZ1SMB5956BT3G
1SMB5946BT3G	SZ1SMB5956BT3G
1SMB5947BT3G	SZ1SMB5956BT3G
1SMB5948BT3G	SZ1SMB5956BT3G
1SMB5949BT3G	SZ1SMB5956BT3G
1SMB5951BT3G	SZ1SMB5956BT3G
1SMB5952BT3G	SZ1SMB5956BT3G
BZG03C150G	SZ1SMB5956BT3G
1SMB5956BT3G	SZ1SMB5956BT3G
1SMB5955BT3G	SZ1SMB5956BT3G
1SMB5954BT3G	SZ1SMB5956BT3G
1SMB5953BT3G	SZ1SMB5956BT3G



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1SMA5926BT3G	SZ1SMA5945BT3G
1SMA5925BT3G	SZ1SMA5945BT3G
1SMA5924BT3G	SZ1SMA5924BT3G
1SMA5923BT3G	SZ1SMA5924BT3G
1SMA5922BT3G	SZ1SMA5924BT3G
1SMA5921BT3G	SZ1SMA5924BT3G
1SMA5920BT3G	SZ1SMA5924BT3G
1SMA5919BT3G	SZ1SMA5924BT3G
1SMA5918BT3G	SZ1SMA5924BT3G
1SMA5917BT3G	SZ1SMA5924BT3G
1SMA5916BT3G	SZ1SMA5924BT3G
1SMA5915BT3G	SZ1SMA5924BT3G
1SMA5914BT3G	SZ1SMA5924BT3G
1SMA5913BT3G	SZ1SMA5924BT3G