



Final Product/Process Change Notification

Document #:FPCN25061XB

Issue Date:17 Nov 2023

Title of Change:	TO220F-Assembly and Test transfer from ONSZ to Suzhou Good-Ark Electronics Co., Ltd., China	
Proposed First Ship date:	24 Feb 2024 or earlier if approved by customer	
Contact Information:	Contact your local onsemi Sales Office or Jeanie.Wang@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.	
Additional Reliability Data:	Contact your local onsemi Sales Office or Harper.Pan@onsemi.com	
Type of Notification:	This is a Final Product/Process Change Notification (FPCN) sent to customers. FPCNs are issued 90 days prior to implementation of the change. onsemi will consider this change accepted, unless an inquiry is made in writing within 30 days of delivery of this notice. To do so, contact PCN.Support@onsemi.com	
Marking of Parts/ Traceability of Change:	The traceability of marking will be maintained by assembly plant code , date code and lot code.	
Change Category:	Test Change, Assembly Change	
Change Sub-Category(s):	Manufacturing Site Transfer	
Sites Affected:		
onsemi Sites	External Foundry/Subcon Sites	
None	Good-Ark, China	
Description and Purpose:		
This Product Change Notification is to announce qualification of TO220F assembly and test sites at Good-Ark, China.		
There are no changes in product electrical performances and specifications.		
	Before Change Description	After Change Description
Assembly Site	onsemi Suzhou (ONSZ)	Suzhou Goodark
Test Site	onsemi Suzhou (ONSZ)	Suzhou Goodark
Die attach	PB93.5SN5AG1.5	PB92.5SN5AG2.5
	From	To
Product marking change	Existing Line 1: Internal traceability Line 2 & Line 3: device marking	Corporate marking style Line 1& Line 2: device marking Line 3: Internal traceability (AYWWZZ)
The traceability of marking will be maintained by assembly plant code, date code and lot code.		



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Reliability Data Summary:

QV DEVICE NAME: FDPF10N60ZUT

RMS: U86581

PACKAGE: TO220F

Test	Specification	Condition	Interval	Result
High Temperature Reverse Bias	JESD22-A108	Ta=145°C, 80% max rated V	1008 hrs	0/77
High Temperature Gate Bias	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs	0/77
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs	0/77
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	500 cyc	0/77
Highly Accelerated Stress Test	JESD22-A110	130°C, 85% RH, 18.8psig, bias	96 hrs	0/77
Unbiased Highly Accelerated Stress Test	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec Required for through hole devices only	end points	0/30
Solderability	JSTD002	Ta = 245°C, 5 sec	end points	0/15
Lead integrity	JESD22-B105	Lead Tension test for 10pcs units. Lead Bending test for 10pcs units. Lead Fatigue test for 10pcs units.	end points	0/30

QV DEVICE NAME: FQPF9N90CT

RMS: U86583, U90912

PACKAGE: TO220F

Test	Specification	Condition	Interval	Result
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 80% max rated V	1008 hrs	0/77
High Temperature Gate Bias	JESD22-A108	Ta=150°C, 100% max rated Vgss	1008 hrs	0/77
High Temperature Storage Life	JESD22-A103	Ta=150°C	1008 hrs	0/77
Temperature Cycling	JESD22-A104	Ta= -55°C to +150°C	1000 cyc	0/77
Highly Accelerated Stress Test	JESD22-A110	110°C, 85% RH, 18.8psig, bias	264 hrs	0/77
Unbiased Highly Accelerated Stress Test	JESD22-A118	110°C, 85% RH, 18.8psig, unbiased	264hrs	0/77
Resistance to Solder Heat	JESD22- B106	Ta = 268°C, 10 sec Required for through hole devices only	end points	0/30
Solderability	JSTD002	Ta = 245°C, 5 sec	end points	0/15
Lead integrity	JESD22-B105	Lead Tension test for 10pcs units. Lead Bending test for 10pcs units. Lead Fatigue test for 10pcs units.	end points	0/30



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Electrical Characteristics Summary:

Electrical characteristics are not impacted.

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
FDPF5N50NZ	FDPF10N60ZUT
FDPF12N50NZ	FDPF10N60ZUT
FDPF12N50T	FDPF10N60ZUT
FDPF14N30	FDPF10N60ZUT
FDPF16N50	FDPF10N60ZUT
FQPF2N60C	FQPF9N90CT
FQPF6N80C	FQPF9N90CT
FQPF6N90C	FQPF9N90CT
FQPF7N80C	FQPF9N90CT
FQPF8N60CFT	FQPF9N90CT
FQPF9N25C	FQPF9N90CT
FQPF9N50C	FQPF9N90CT
FQPF9P25	FQPF9N90CT
FQPF10N20C	FQPF9N90CT
FQPF11P06	FQPF9N90CT
FQPF13N06L	FQPF9N90CT
FQPF15P12	FQPF9N90CT
FQPF16N25C	FQPF9N90CT
FQPF20N06L	FQPF9N90CT
FQPF22P10	FQPF9N90CT
FQPF33N10	FQPF9N90CT
FQPF85N06	FQPF9N90CT
FQPF70N10	FQPF9N90CT
FQPF33N10L	FQPF9N90CT

Appendix A: Changed Products

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DIKG: DIGI-KEY

Product	Customer Part Number	Qualification Vehicle	New Part Number	Replacement Supplier
FDPF5N50NZ		FDPF10N60ZUT		
FDPF12N50T		FDPF10N60ZUT		
FDPF14N30		FDPF10N60ZUT		
FDPF16N50		FDPF10N60ZUT		
FQPF2N60C		FQPF9N90CT		
FQPF6N80C		FQPF9N90CT		
FQPF6N90C		FQPF9N90CT		
FQPF7N80C		FQPF9N90CT		
FQPF8N60CFT		FQPF9N90CT		
FQPF9N25C		FQPF9N90CT		
FQPF9P25		FQPF9N90CT		
FQPF10N20C		FQPF9N90CT		
FQPF11P06		FQPF9N90CT		
FQPF13N06L		FQPF9N90CT		
FQPF15P12		FQPF9N90CT		
FQPF16N25C		FQPF9N90CT		
FQPF20N06L		FQPF9N90CT		
FQPF22P10		FQPF9N90CT		
FQPF33N10		FQPF9N90CT		
FQPF85N06		FQPF9N90CT		
FQPF70N10		FQPF9N90CT		
FQPF33N10L		FQPF9N90CT		
FDPF12N50NZ		FDPF10N60ZUT		