



Final Product/Process Change Notification

Document #:FPCN25061X

Issue Date: 26 Jul 2023

Title of Change:	TO220F-Assembly and Test Qualification to Suzhou Good-Ark Electronics Co., Ltd., China for Capacity Expansion
Proposed First Ship date:	02 Nov 2023 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:	Assembly Change, Test 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 Good-Ark
Test Site	onsemi Suzhou (ONSZ)	Suzhou Good-Ark
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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QV DEVICE NAME: **FCPF220N80**

RMS: **U86579**

PACKAGE: **TO220F**

Test	Specification	Condition	Interval	Result
High Temperature Reverse Bias	JESD22-A108	Ta=150°C, 100% 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	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

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
FDPF320N06L	FDPF10N60ZUT
FDPF680N10T	FDPF10N60ZUT
FDPF2710T	FDPF10N60ZUT
FDPF3860T	FDPF10N60ZUT
FDPF045N10A	FDPF10N60ZUT
FDPF085N10A	FDPF10N60ZUT
FDPF190N15A	FDPF10N60ZUT
FDPF390N15A	FDPF10N60ZUT
FDPF2D3N10C	FDPF10N60ZUT
FDPF4D5N10C	FDPF10N60ZUT



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FDPF8D5N10C	FDPF10N60ZUT
FDPF12N60NZ	FDPF10N60ZUT
FDPF15N65	FDPF10N60ZUT
FDPF17N60NT	FDPF10N60ZUT
FDPF18N20FT	FDPF10N60ZUT
FDPF18N50	FDPF10N60ZUT
FDPF20N50FT	FDPF10N60ZUT
FDPF20N50T	FDPF10N60ZUT
FDPF33N25T	FDPF10N60ZUT
FDPF39N20	FDPF10N60ZUT
FDPF51N25	FDPF10N60ZUT
FDPF55N06	FDPF10N60ZUT
FQPF2N80	FQPF9N90CT
FQPF3N80C	FQPF9N90CT
FQPF7P20	FQPF9N90CT
FQPF9N90CT	FQPF9N90CT
FQPF13N50CF	FQPF9N90CT
FQPF19N20C	FQPF9N90CT
FQPF27N25	FQPF9N90CT
FQPF27P06	FQPF9N90CT
FQPF47P06	FQPF9N90CT
FCPF7N60	FCPF220N80
FCPF11N60	FCPF220N80
FCPF11N60F	FCPF220N80
FCPF11N60T	FCPF220N80
FCPF11N65	FCPF220N80
FCPF16N60	FCPF220N80
FCPF20N60	FCPF220N80
FCPF20N60S	FCPF220N80
FCPF20N60T	FCPF220N80
FCPF067N65S3	FCPF220N80
FCPF099N65S3	FCPF220N80
FCPF125N65S3	FCPF220N80
FCPF150N65F	FCPF220N80



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FCPF190N60	FCPF220N80
FCPF190N60E	FCPF220N80
FCPF220N80	FCPF220N80
FCPF260N60E	FCPF220N80
FCPF290N80	FCPF220N80
FCPF380N60	FCPF220N80
FCPF380N60E	FCPF220N80
FCPF400N60	FCPF220N80
FCPF400N80Z	FCPF220N80
FCPF600N60Z	FCPF220N80
FCPF650N80Z	FCPF220N80
FCPF850N80Z	FCPF220N80
FCPF1300N80Z	FCPF220N80
FCPF2250N80Z	FCPF220N80
FCPF4300N80Z	FCPF220N80
NTPF600N80S3Z	FCPF220N80
NTPF450N80S3Z	FCPF220N80
NTPF360N80S3Z	FCPF220N80
NTPF360N65S3H	FCPF220N80
NTPF250N65S3H	FCPF220N80
NTPF190N65S3HF	FCPF220N80
NTPF190N65S3H	FCPF220N80
NTPF165N65S3H	FCPF220N80
NTPF150N65S3HF	FCPF220N80
NTPF125N65S3H	FCPF220N80
NTPF110N65S3HF	FCPF220N80
NTPF095N65S3H	FCPF220N80
NTPF082N65S3F	FCPF220N80
FCPF400N80Z-AL	FCPF220N80
FCPF400N80Z-01	FCPF220N80