

## Final Product/Process Change Notification Document #:FPCN25061XA

Issue Date: 27 Sep 2023

Title of Change:	TO220F-Assembly and Test transfer from ONSZ to Suzhou Good-Ark Electronics Co., Ltd., China		
Proposed First Ship date:	03 Jan 2024 or earlier if approved by customer		
Contact Information:	Contact your local onsemi Sales Office or <a href="mailto:Jeanie.Wang@onsemi.com">Jeanie.Wang@onsemi.com</a>		
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 <a href="mailto:PCN.Support@onsemi.com">PCN.Support@onsemi.com</a>		
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	То
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.

TEM001793 Rev. F Page 1 of 3



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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

TEM001793 Rev. F Page 2 of 3



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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 <u>PCN Customized Portal</u>.

Part Number	Qualification Vehicle
FQPF4N90C	FQPF9N90CT
FQPF8N80C	FQPF9N90CT
FDPF44N25T	FDPF10N60ZUT
FDPF18N50T	FDPF10N60ZUT

TEM001793 Rev. F Page 3 of 3