Final Product/Process Change Notification

Document #:FPCN24738X
Issue Date: 29 Jun 2022

Title of Change:	Change to green mold compound.
Proposed First Ship date:	06 Oct 2022 or earlier if approved by customer
Contact Information:	Contact your local onsemi Sales Office or Tai.Truong@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 Khoa.Tran2@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:	Clean date code advise upon request
Change Category:	Assembly Change
Change Sub-Category(s):	Manufacturing Process Change

Sites Affected:

onsemi Sites	**External Foundry/Subcon Sites**
None	Yangxin Everwell, China

Description and Purpose:

This Final Notification is to announce the plan to change green mold compound for packages in table below.

Package	From	To
DO-41 DO-204 DO-201AD	EME-1200	EK-1800G, E500
SIP4	EME-1200	EK-1800G, G591
TO-220	EME-1100	E110G

There is no product marking change as a result of this change.

Reliability Data Summary:

QV DEVICE NAME: EGP10K (Glass Passivated Rectifier)
PACKAGE: DO-41

Test	Specification	Condition	Interval	Result	
				EK-1800G	E500
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated VR up to 100V	96 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: RGP10M (Glass Passivated Rectifier)
PACKAGE: DO-41

Test	Specification	Condition	Interval	Result	
				EK-1800G	E500
HTRB	JESD22-A108	Tj=175°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated VR up to 100V	96 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: UF4007 (Fast Rectifier)
PACKAGE: DO-41

Test	Specification	Condition	Interval	Result	
				EK-1800G	E500
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated VR up to 100V	96 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: EGP20K (Glass Passivated Rectifier)
PACKAGE: DO-204

Test	Specification	Condition	Interval	Result	
				EK-1800G	E500
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	110°C, 85% RH, 18.8psig, 80% rated VR up to 100V	264 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: EGP30K (Glass Passivated Rectifier)
PACKAGE: DO-201AD

Test	Specification	Condition	Interval	Result	
				EK-1800G	E500
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 2min	15000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated VR up to 100V	96 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: GBU4M (Bridge Rectifiers)
PACKAGE: SIP4

Test	Specification	Condition	Interval	Result	
				EK-1800G	G591
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 5 min	6000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	110°C, 85% RH, 18.8psig, 80% rated VR up to 100V	264 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: GBU6M (Bridge Rectifiers)
PACKAGE: SIP4

Test	Specification	Condition	Interval	Result	
				EK-1800G	G591
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 5 min	6000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	110°C, 85% RH, 18.8psig, 80% rated VR up to 100V	264 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: GBU8M (Bridge Rectifiers)
PACKAGE: SIP4

Test	Specification	Condition	Interval	Result	
				EK-1800G	G591
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77	0/77
HTSL	JESD22-A103	Ta = 150 °C	1008 hrs	0/77	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 5 min	6000 cyc	0/77	0/77
TC	JESD22-A104	Ta = -55°C to +150°C	1000 cyc	0/77	0/77
HAST	JESD22-A110	130°C, 85% RH, 18.8psig, 80% rated VR up to 100V	96 hrs	0/77	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30	0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15	0/15

QV DEVICE NAME: MBR1660 (Schottky Rectifier)
PACKAGE: TO-220

Test	Specification	Condition	Interval	Result
HTRB	JESD22-A108	Tj=150°C, bias = 100% of rated V	1008 hrs	0/77
HTSL	JESD22-A103	Ta = 175 °C	1008 hrs	0/77
IOL	MIL-STD-750 (M1037) AEC-Q101	Ta = +25°C, deltaTj = 100°C max, Ton = Toff = 3.5 min	8572 cyc	0/77
TC	JESD22-A104	Ta = -65°C to +150°C	1000 cyc	0/77
HAST	JESD22-A110	110°C, 85% RH, 18.8psig, 80% rated VR up to 100V	264 hrs	0/77
UHAST	JESD22-A118	130°C, 85% RH, 18.8psig, unbiased	96 hrs	0/77
RSH	JESD22- B106	Ta = 265°C, 10 sec		0/30
SD	JSTD002	Ta = 245°C, 5 sec		0/15

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
EGP20D	EGP20K
EGP20F	EGP20K
EGP20G	EGP20K
EGP20J	EGP20K
EGP20K	EGP20K
EGP30A	EGP30K
EGP30B	EGP30K
EGP30C	EGP30K
EGP30D	EGP30K
EGP30F	EGP30K
EGP30G	EGP30K
EGP30J	EGP30K
GBU4G	GBU4M
GBU4J	GBU4M
GBU4K	GBU4M
GBU4M	GBU4M
GBU6A	GBU6M
GBU6B	GBU6M
GBU6D	GBU6M
GBU6G	GBU6M
GBU6J	GBU6M
GBU6K	GBU6M
GBU6M	GBU6M
GBU8A	GBU8M
GBU8B	GBU8M
GBU8D	GBU8M
GBU8G	GBU8M
GBU8J	GBU8M
GBU8K	GBU8M

GBU8M	GBU8M
GBU8KS	GBU8M
GBU4D	GBU4M
GBU4B	GBU4M
GBU4A	GBU4M
UF4007	UF4007
UF4006	UF4007
UF4005	UF4007
UF4004	UF4007
UF4003	UF4007
UF4002	UF4007
UF4001	UF4007
RGP10M	RGP10M
RGP10K	RGP10M
RGP10J	RGP10M
RGP10G	RGP10M
RGP10D	RGP10M
RGP10B	RGP10M
RGP10A	RGP10M
EGP20B	EGP20K
EGP20A	EGP20K
EGP10B	UF4007
EGP10C	UF4007
EGP10D	UF4007
EGP10F	UF4007
EGP10G	UF4007
EGP10K	UF4007
EGP20C	EGP20K
EGP30K	EGP30K
MBR1660	MBR1660