

## Production Part Approval - Material, Performance Test Results Discrete Semiconductor Component Qualification Plan

Customer P/N :	SS26	Product Engineer :	Reyn
Customer Spec. # :	N/A	General Specification :	AEC-Q101
Supplier Name :	Taiwan Semiconductor Corp.	Supplier Manufacturing Site :	YEW
Supplier Generic P/N :	SMB 2.0Amps SMD rectifiers	Required PPAP Submission Date :	8-Mar-12
Supplier Internal P/N :	SS22 thru SS215	Family Type :	SKY
Reason for Qual. :	Schottky FE(Front End) wafer production location and technology change for subcon-1		

Item	Test	Test Condition	Exceptions	Est. Start	Est. Comp.	# Lots	S.S.	Remarks
1	Electrical Test	Electrical characterization	@25°C	8-Mar-12	8-Mar-12	ALL	1290	ACC
2	External Visual	Inspect device construction, marking and workmanship	N/A	8-Mar-12	8-Mar-12	ALL	1290	ACC
3	Parameter Verification	Electrical characterization	@25/150°C	9-Mar-12	9-Mar-12	3	10	ACC
4	Pre-conditioning	Per specification	N/A	9-Mar-12	20-Mar-12	3	308	ACC
5	H.3T.R.B	Ta = 85 ± 2°C, R.H = 85 ± 5% VR = 80%	1000hrs	20-Mar-12	2-May-12	3	77	ACC
6	H.T.R.B.	80% Rated VR (Tj=150°C)	1000hrs	9-Feb-12	21-Apr-12	3	77	ACC
7	Temperature Cycle	-55°C/15Min, 150°C/15Min, 25°C/5Min (Transfer)	1000cycles	20-Mar-12	24-Apr-12	3	77	ACC
8	Autoclave	Ta = 121 ± 2°C 15Psig	96hrs	20-Mar-12	25-Mar-12	3	77	ACC
9	Intermittent Operating Life	On/2min, Off/2min	15000cycles	20-Mar-12	2-May-12	3	77	ACC
10	ESD	HBM: 100pF 1500ohm > 8KV	N/A	9-Feb-12	11-Mar-12	3	15	ACC
11	Resistance to Solder Heat	260 ± 5°C	10sec	9-Mar-12	11-Mar-12	3	30	ACC
12	DPA	Per specification	N/A	3-May-12	4-May-12	3	2	ACC
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Comment :

Prepared by :	Reben	Approved by :	Hejun
Date :	7-May-12	Date :	8-May-12
Title :	Hi-rel supervisor	Title :	QA leader

## Production Part Approval - Material, Performance Test Results Discrete Semiconductor Component Qualification Plan

Customer P/N :	SS210	Product Engineer :	Reyn
Customer Spec. # :	N/A	General Specification :	AEC-Q101
Supplier Name :	Taiwan Semiconductor Corp.	Supplier Manufacturing Site :	YEW
Supplier Generic P/N :	SMB 2.0Amps SMD rectifiers	Required PPAP Submission Date :	4-Mar-12
Supplier Internal P/N :	SS22 thru SS215	Family Type :	SKY
Reason for Qual. :	Schottky FE(Front End) wafer production location and technology change for subcon-1		

Item	Test	Test Condition	Exceptions	Est. Start	Est. Comp.	# Lots	S.S.	Remarks
1	Electrical Test	Electrical characterization	@25°C	4-May-12	4-May-12	ALL	1290	ACC
2	External Visual	Inspect device construction, marking and workmanship	N/A	4-May-12	4-May-12	ALL	1290	ACC
3	Parameter Verification	Electrical characterization	@25/150°C	5-May-12	5-May-12	3	10	ACC
4	Pre-conditioning	Per specification	N/A	5-May-12	16-May-12	3	308	ACC
5	H.3T.R.B	Ta = 85 ± 2°C, R.H = 85 ± 5% VR = 80%	1000hrs	16-May-12	28-Jun-12	3	77	ACC
6	H.T.R.B.	80% Rated VR (Tj=150°C)	1000hrs	5-May-12	17-Jun-12	3	77	ACC
7	Temperature Cycle	-55°C/15Min, 150°C/15Min, 25°C/5Min (Transfer)	1000cycles	16-May-12	20-Jun-12	3	77	ACC
8	Autoclave	Ta = 121 ± 2°C 15Psig	96hrs	16-May-12	21-May-12	3	77	ACC
9	Intermittent Operating Life	On/2min, Off/2min	15000cycles	16-May-12	28-Jun-12	3	77	ACC
10	ESD	HBM: 100pF 1500ohm > 8KV	N/A	5-May-12	7-May-12	3	15	ACC
11	Resistance to Solder Heat	260 ± 5°C	10sec	5-May-12	7-May-12	3	30	ACC
12	DPA	Per specification	N/A	29-Jun-12	30-Jun-12	3	2	ACC
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Comment :

Prepared by :	Reben	Approved by :	Hejun
Date :	30-Jun-12	Date :	2-Jul-12
Title :	Hi-rel supervisor	Title :	QA leader

## Production Part Approval - Material, Performance Test Results Discrete Semiconductor Component Qualification Plan

Customer P/N :	SS215	Product Engineer :	Reyn
Customer Spec. # :	N/A	General Specification :	AEC-Q101
Supplier Name :	Taiwan Semiconductor Corp.	Supplier Manufacturing Site :	YEW
Supplier Generic P/N :	SMB 2.0Amps SMD rectifiers	Required PPAP Submission Date :	5-Sep-12
Supplier Internal P/N :	SS22 thru SS215	Family Type :	SKY
Reason for Qual. :	Schottky FE(Front End) wafer production location and technology change for subcon-1		

Item	Test	Test Condition	Exceptions	Est. Start	Est. Comp.	# Lots	S.S.	Remarks
1	Electrical Test	Electrical characterization	@25°C	5-Sep-12	5-Sep-12	ALL	1290	ACC
2	External Visual	Inspect device construction, marking and workmanship	N/A	5-Sep-12	5-Sep-12	ALL	1290	ACC
3	Parameter Verification	Electrical characterization	@25/150°C	6-Sep-12	6-Sep-12	3	10	ACC
4	Pre-conditioning	Per specification	N/A	6-Sep-12	17-Sep-12	3	308	ACC
5	H.3T.R.B	Ta = 85 ± 2°C, R.H = 85 ± 5% VR = 80%	1000hrs	17-Sep-12	30-Oct-12	3	77	ACC
6	H.T.R.B.	80% Rated VR (Tj=150°C)	1000hrs	6-Sep-12	19-Oct-12	3	77	ACC
7	Temperature Cycle	-55°C/15Min, 150°C/15Min, 25°C/5Min (Transfer)	1000cycles	17-Sep-12	22-Oct-12	3	77	ACC
8	Autoclave	Ta = 121 ± 2°C 15Psig	96hrs	17-Sep-12	22-Sep-12	3	77	ACC
9	Intermittent Operating Life	On/2min, Off/2min	15000cycles	17-Sep-12	30-Oct-12	3	77	ACC
10	ESD	HBM: 100pF 1500ohm > 8KV	N/A	6-Sep-12	8-Sep-12	3	15	ACC
11	Resistance to Solder Heat	260 ± 5°C	10sec	6-Sep-12	8-Sep-12	3	30	ACC
12	DPA	Per specification	N/A	1-Oct-12	2-Oct-12	3	2	ACC
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Comment :

Prepared by :	Reben	Approved by :	Hejun
Date :	2-Oct-12	Date :	3-Oct-12
Title :	Hi-rel supervisor	Title :	QA leader

## Production Part Approval - Material, Performance Test Results Discrete Semiconductor Component Qualification Plan

Customer P/N :	SS26	Product Engineer :	Reyn
Customer Spec. # :	N/A	General Specification :	AEC-Q101
Supplier Name :	Taiwan Semiconductor Corp.	Supplier Manufacturing Site :	YEW
Supplier Generic P/N :	SMB 2.0Amps SMD rectifiers	Required PPAP Submission Date :	8-May-12
Supplier Internal P/N :	SS22 thru SS215	Family Type :	SKY
Reason for Qual. :	Schottky FE(Front End) wafer production location and technology change for subcon-2		

Item	Test	Test Condition	Exceptions	Est. Start	Est. Comp.	# Lots	S.S.	Remarks
1	Electrical Test	Electrical characterization	@25°C	8-May-12	8-May-12	ALL	1290	ACC
2	External Visual	Inspect device construction, marking and workmanship	N/A	8-May-12	8-May-12	ALL	1290	ACC
3	Parameter Verification	Electrical characterization	@25/150°C	9-May-12	9-May-12	3	10	ACC
4	Pre-conditioning	Per specification	N/A	9-May-12	20-May-12	3	308	ACC
5	H.3T.R.B	Ta = 85 ± 2°C, R.H = 85 ± 5% VR = 80%	1000hrs	20-May-12	2-Jul-12	3	77	ACC
6	H.T.R.B.	80% Rated VR (Tj=150°C)	1000hrs	9-May-12	21-Jun-12	3	77	ACC
7	Temperature Cycle	-55°C/15Min, 150°C/15Min, 25°C/5Min (Transfer)	1000cycles	20-May-12	24-Jun-12	3	77	ACC
8	Autoclave	Ta = 121 ± 2°C 15Psig	96hrs	20-May-12	25-May-12	3	77	ACC
9	Intermittent Operating Life	On/2min, Off/2min	15000cycles	20-May-12	2-Jul-12	3	77	ACC
10	ESD	HBM: 100pF 1500ohm > 8KV	N/A	9-May-12	11-May-12	3	15	ACC
11	Resistance to Solder Heat	260 ± 5°C	10sec	9-May-12	11-May-12	3	30	ACC
12	DPA	Per specification	N/A	3-Jul-12	4-Jul-12	3	2	ACC
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Comment :

Prepared by :	Reben	Approved by :	Hejun
Date :	7-Jul-12	Date :	8-Jul-12
Title :	Hi-rel supervisor	Title :	QA leader

## Production Part Approval - Material, Performance Test Results Discrete Semiconductor Component Qualification Plan

Customer P/N :	SS210	Product Engineer :	Reyn
Customer Spec. # :	N/A	General Specification :	AEC-Q101
Supplier Name :	Taiwan Semiconductor Corp.	Supplier Manufacturing Site :	YEW
Supplier Generic P/N :	SMB 2.0Amps SMD rectifiers	Required PPAP Submission Date :	4-Jun-12
Supplier Internal P/N :	SS22 thru SS215	Family Type :	SKY
Reason for Qual. :	Schottky FE(Front End) wafer production location and technology change for subcon-2		

Item	Test	Test Condition	Exceptions	Est. Start	Est. Comp.	# Lots	S.S.	Remarks
1	Electrical Test	Electrical characterization	@25°C	4-Jun-12	4-Jun-12	ALL	1290	ACC
2	External Visual	Inspect device construction, marking and workmanship	N/A	4-Jun-12	4-Jun-12	ALL	1290	ACC
3	Parameter Verification	Electrical characterization	@25/150°C	5-Jun-12	5-Jun-12	3	10	ACC
4	Pre-conditioning	Per specification	N/A	5-Jun-12	16-Jun-12	3	308	ACC
5	H.3T.R.B	Ta = 85 ± 2°C, R.H = 85 ± 5% VR = 80%	1000hrs	16-Jun-12	29-Jul-12	3	77	ACC
6	H.T.R.B.	80% Rated VR (Tj=150°C)	1000hrs	5-Jun-12	18-Jul-12	3	77	ACC
7	Temperature Cycle	-55°C/15Min, 150°C/15Min, 25°C/5Min (Transfer)	1000cycles	16-Jun-12	21-Jul-12	3	77	ACC
8	Autoclave	Ta = 121 ± 2°C 15Psig	96hrs	16-Jun-12	21-Jun-12	3	77	ACC
9	Intermittent Operating Life	On/2min, Off/2min	15000cycles	16-Jun-12	29-Jul-12	3	77	ACC
10	ESD	HBM: 100pF 1500ohm > 8KV	N/A	5-Jun-12	7-Jun-12	3	15	ACC
11	Resistance to Solder Heat	260 ± 5°C	10sec	5-Jun-12	7-Jun-12	3	30	ACC
12	DPA	Per specification	N/A	30-Jul-12	31-Jul-12	3	2	ACC
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Comment :

Prepared by :	Reben	Approved by :	Hejun
Date :	1-Aug-12	Date :	2-Aug-12
Title :	Hi-rel supervisor	Title :	QA leader

## Production Part Approval - Material, Performance Test Results Discrete Semiconductor Component Qualification Plan

Customer P/N :	SS215	Product Engineer :	Reyn
Customer Spec. # :	N/A	General Specification :	AEC-Q101
Supplier Name :	Taiwan Semiconductor Corp.	Supplier Manufacturing Site :	YEW
Supplier Generic P/N :	SMB 2.0Amps SMD rectifiers	Required PPAP Submission Date :	25-Oct-12
Supplier Internal P/N :	SS22 thru SS215	Family Type :	SKY
Reason for Qual. :	Schottky FE(Front End) wafer production location and technology change for subcon-2		

Item	Test	Test Condition	Exceptions	Est. Start	Est. Comp.	# Lots	S.S.	Remarks
1	Electrical Test	Electrical characterization	@25°C	25-Oct-12	25-Oct-12	ALL	1290	ACC
2	External Visual	Inspect device construction, marking and workmanship	N/A	25-Oct-12	25-Oct-12	ALL	1290	ACC
3	Parameter Verification	Electrical characterization	@25/150°C	26-Oct-12	26-Oct-12	3	10	ACC
4	Pre-conditioning	Per specification	N/A	26-Oct-12	6-Nov-12	3	308	ACC
5	H.3T.R.B	Ta = 85 ± 2°C, R.H = 85 ± 5% VR = 80%	1000hrs	6-Nov-12	29-Dec-12	3	77	ACC
6	H.T.R.B.	80% Rated VR (Tj=150°C)	1000hrs	26-Oct-12	8-Dec-12	3	77	ACC
7	Temperature Cycle	-55°C/15Min, 150°C/15Min, 25°C/5Min (Transfer)	1000cycles	6-Nov-12	11-Dec-12	3	77	ACC
8	Autoclave	Ta = 121 ± 2°C 15Psig	96hrs	6-Nov-12	11-Nov-12	3	77	ACC
9	Intermittent Operating Life	On/2min, Off/2min	15000cycles	6-Nov-12	19-Dec-12	3	77	ACC
10	ESD	HBM: 100pF 1500ohm > 8KV	N/A	26-Oct-12	28-Oct-12	3	15	ACC
11	Resistance to Solder Heat	260 ± 5°C	10sec	26-Oct-12	28-Oct-12	3	30	ACC
12	DPA	Per specification	N/A	29-Oct-12	30-Oct-12	3	2	ACC
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Comment :

Prepared by :	Reben	Approved by :	Hejun
Date :	31-Oct-12	Date :	1-Nov-12
Title :	Hi-rel supervisor	Title :	QA leader