

International Rectifier – Temecula Reliability Laboratory

QS-9000 and ISO-9000 Certified Facility; SQ-1000 Certified Laboratory

HEXFET America Facility: 41915 Business Park Drive Temecula, CA 92590 Phone 909-676-7500 Fax 909-676-9154

QUALIFICATION REPORT

Title	Lite-On SMA,B,C Pb free qualification
Product/Part # *	SMA,B,C Schottky devices
Qualification Level	Industrial
Silicon Technology	Schottky
Mositure Sensitivity	MSL1

REVISION HISTORY

#	Date	Author	Description of Changes
A	3/26/04	Rel Engineer	Initial Release

INTRODUCTION

In compliance with worldwide Industry initiative of “Lead Free” material for semiconductor fabrication, IR is proposing the conversion of the existing 85Sn/15Pb solder plating process to a more environment friendly 100% Sn plating process for the assembly of SMA/B/C devices.

SUMMARY/CONCLUSION

Based on the results of reliability stress testing, the SMA/B/C Shottky devices assembled with Lead free plating are qualified to the Industrial Level.

The reflow temperature during surface mount of these devices should not exceed 260°C.

Reliability Engineer

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QUALIFICATION TEST RESULTS

Part Type	30BQ015
Tests	Test: Temperature Cycling
	R#: 2818A3,4,5
	Conditions: -55°C/150°C
	Duration: 1000 cycles
	Quantity: 3 lots x 77 devices
	Failures: 0 failures
	Test: High Humidity, High Temperature Reverse Bias (H3TRB)
	R#: 2818B3,4,5
	Conditions: 85°C/85%RH/12V
Duration: 1000 hours	
Quantity: 3 lots x 77 devices	
Failures: 0 failures	
Test: Autoclave	
R#: 2818F3, 4, 5	
Conditions: 121°C/100%RH/15psig	
Duration: 96 hours	
Quantity: 3 lots x 77 devices	
Failures: 0 failures	

Part Type	10BQ040
Tests	Test: Temperature Cycling
	R#: 2818A2
	Conditions: -55°C/150°C
	Duration: 1000 cycles
	Quantity: 1 lot x 77 devices
	Failures: 0 failures
	Test: High Humidity, High Temperature Reverse Bias (H3TRB)
	R#: 2818B2
	Conditions: 85°C/85%RH/32V
Duration: 1000 hours	
Quantity: 1 lots x 77 devices	
Failures: 0 failures	
Test: Autoclave	
R#: 2818F2	
Conditions: 121°C/100%RH/15psig	
Duration: 96 hours	
Quantity: 1 lots x 77 devices	
Failures: 0 failures	

Part Type	10MQ100
	Test: High Humidity, High Temperature Reverse Bias (H3TRB)
	R#: 2818B1
	Conditions: 85°C/85%RH/80V
	Duration: 1000 hours
	Quantity: 1 lots x 77 devices
	Failures: 0 failures