



**Reliability Report
(Q2016-001W)**

**IX332B Product Qualification
2.5 Amp Output Current IGBT Gate Driver
Optocoupler**

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IXYS Integrated Circuits Division
78 Cherry Hill Drive, Beverly, MA 01915
www.ixysic.com

Summary

The IX332B product has successfully passed IXYS ICD’s requirements for product qualification.

Table 1: Device Information

Product Number	IX332B
Package Type	16L SOIC
Assembly Site	ATEC, Philippines (XFAB Process CX08 UL111)
Test Site	IXYS ICD BEV, Beverly, MA, USA

Table 2: Reliability Test Result

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
HTRB	125°C, 80% WVDC, 1000 hrs	Mil-Std-883 M1005 JESD22-A-108	IX332B TE3544	105	0
			IX332B TE3570	105	0
Thermal Shock	0 to 100°C, 10/10 dwells, 15 cycles	Mil-Std-883, M1011	IX332B TE3520	55	0
			IX332B TE3523	55	0
			IX332B TE3544	55	0
			IX332B TE3570	55	0
Temperature Cycle	-55 to 125°C, 10/10 dwells, 300 cycles	Mil-Std-883, M1010, “B”	IX332B TE3558	55	0
			IX332B TE3569	55	0
			IX332B TE3570	55	0
Hot Storage	125C, 1000 hrs	JESD22-A103-C	IX332B TE3544	50	0
			IX332B TE3558	50	0
			IX332B TE3570	50	0

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Sample Size (SS)	# of Failures
MSL	IR Reflow, Level 1	J-STD-020D.1	IX332B TE3570	25	0

Table 3: ESD Results – 16-Pin SOIC

Stress Test	Stress Conditions	Applicable Specs	Product/Package	Highest Passed	Class
HBM	All Pins, 1.5kΩ, 100pF	JESD22- A114-E	IX332B TE3570	+/-1000V	1C

Table 4: FIT Rate Summary

Qual Lot #	Stress Test	# of Devices	# of Fail	Hours Tested	Equivalent Dev. Hours	FIT Rate @ 60% CL
1	HTRB	210	0	1000	53,635,253	17.15

* HTRB FIT Rate was calculated based on the Acceleration Factor (AF) and equivalent device hours at 0.7eV of activation energy at 125°C test temperature and 40°C use temperature.

Approvals

Prepared by: Martha W. Brandt* 11/3/16
 Martha W. Brandt Date
 Senior Quality Engineer

Approved by: George Belezos* 11/4/16
 George Belezos Date
 Quality Manager

Approved by: Ajit Patel* 11/4/16
 Ajit Patel Date
 Product Development Engineer

Approved by: James Archibald* 11/3/16
 James Archibald Date
 VP Research and Development

*Signature on File